T.C.
HACETTEPE UNIVERSITY
GRADUATE SCHOOL OF HEALTH SCIENCES

DETERMINATION OF THE EFFECTS OF DISCHARGE TRAINING AND COUNSELING ON QUALITY OF LIFE AND POST DISCHARGE PROBLEMS IN PATIENTS UNDERGOING CORONARY ARTERY BYPASS GRAFT SURGERY

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Surgical Nursing Program
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APPROVAL

This dissertation has been approved by the committee above in conformity to the regulations and bylaws of Hacettepe University Graduate Programs and has been accepted by the Board of Directors of the Institute of Health Sciences.

Prof. Ersin FADILLIOĞLU, MD, PhD
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ÖZET

Akbari, Masoumeh. Koroner Arter Bypass Greft Ameliyatı Geçiren Hastalara Verilen Taburculuk Eğitiminin ve Danışmanlık Hizmetinin Yaşam Kalitesine ve Taburculuk Sonrası Yaşanan Sorunlara Etkisinin Belirlenmesi. Hacettepe Üniversitesi, Sağlık Bilimleri Enstitüsü, Cerrahi Hastalıkları Hemşireliği Programı, Doktora Tezi, Ankara, 2014. Bu çalışma, KABG ameliyatı olan hastalara verilen taburculuk eğitiminin ve danışmanlık hizmetinin, taburculuk sonrası yaşanan sorunlara ve yaşam kalitesine etkisini incelemek amacıyla yarı deneysel olarak yapılmıştır. Araştırmanın evrenine Urmia Üniversitesi, Tıp Bilimleri Fakültesi, Seyed-al-Shohada Hastanesi'nin Kardiyoloji Alt Uzmanlık Cerrahi bölümünde koroner arter baypas greft ameliyatı geçiren hastalar seçilmiştir. Araştırmanın örneklemi 3 Nisan 2013-30 Eylül 2013 tarihleri arasında koroner arter bypass greft ameliyatı geçirmiş 100 hasta oluşturmuştur. Veriler "Kişisel Bilgi Formu", "Taburculuk Sonrası Evde Takip Formu" ve " SF-36 Sağlık Araştırması İran versiyonu " formları kullanılarak toplanmıştır. Kontrol grubu hastalara rutin klinik prosedürler dışında planlı taburculuk eğitimi ve danışmanlık verilmezken, müdahale grubundaki hastalara kitapçık doğrultusunda ameliyattan önce ve taburculuktan 6 hafta sonraya kadar taburculuk eğitimi ve danışmanlık verilmiştir. Veriler, SPSS Inc, 23.0 yazılım paketi sürümü kullanılarak analiz edildi ve verileri tanımlamak için sayı, yüzde ve dağılım kullanıldı. İstatistiksel testler olarak eşleştirilmiş örneklem t-testi, varyans analizi, Tukey ve ki-kare testleri kullanıldı ve $p<0.05$ anlamlı olarak kabul edildi. Müdahale grubu kontrol grubu ile karşılaştırıldığında, bu eğitim programlarının bir sonucu olarak, müdahale grubunundaki hastaların sorunları, kontrol grubundan daha azdı ($p<0.05$). Yaşam kalitesi incelendiğinde, genel sağlık algısında hastaların ameliyat öncesi ortalama puanlarında, anlamlı bir fark vardı ($p<0.05$). Müdahale grubunda SF-36 skalası ile elde edilen yaşam kalitesi puanları, ameliyat öncesi ve altı hafta sonrasında anlamlı olarak farklı olduğu belirlendi ($p<0.05$). Sonuç olarak, müdahale grubundaki hastalara verilen taburculuk eğitimi ve danışmanlık hizmeti, hastaların problemlerinin azaltılması açısından pozitif bir etki göstermiştir. Bu nedenle, kurumların araştırmadaki yöntemler kullanılarak multidisipliner hasta eğitimi ve danışmanlık faaliyetlerini desteklemeleri önerilebilir.

Anahtar Kelimeler: Taburculuk Sonrası Eğitim, Danışmanlık, Yaşam Kalitesi, Taburculuk Sonrası Sorunları, Koroner Arter Bypass Greft Ameliyatı

ABSTRACT

Akbari, Masoumeh. Determination of the Effects of Discharge Training and Counseling on Quality of Life and Post Discharge Problems in Patients Undergoing Coronary Artery Bypass Graft (CABG) Surgery, Hacettepe University, Graduate School of Health Sciences, Surgical Nursing Program, PhD Thesis, Ankara, 2014. The present study was carried out as semi-experimentally study to determine the effects of discharge training and counseling on quality of life and post discharge problems in CABG patients. The study population was chosen among the patients who have undergone a coronary artery bypass graft operation in the surgery department of Seyed-al-Shohada Cardiology Subspecialty Hospital affiliated with Urmia University Medical Sciences, Iran. Sample of study consisted of 100 patient undergoing coronary artery bypass graft surgery between April 1, 2013 and September 30, 2013. "Personal Information Form", "The Home Follow-Up Form after Discharge" and "Iranian Version SF-36 Health Survey" forms were used for data collection. Patients in the intervention group were provided discharge training and counselling with a booklet before surgery and until six week after discharge while the patients in the control group did not receive planned discharge training and counselling other than the routine clinical procedures. The data were analyzed using SPSS Inc., version 23.0 software package. Frequency and distribution were used to describe the data, and the paired sample t- test, and Variance analysis, Tukey, chi-squared tests were used and $p<0.05$ margin of error was accepted as significant. Comparing intervention group to the control one, as a result of this education programs, problems were found fewer in intervention group than control group ($p<0.05$). Investigating quality of life, significant difference was found between the mean scores of patients in the general health perception before surgery ($p<0.05$). Obtained life quality scores in all cases of SF-36 scale before and six weeks after surgery in intervention group were found significantly different ($p<0.05$). Finally, discharge training and counselling service given to patients in the intervention group had a positive impact on decreasing the problems they had and increasing their quality of life. Therefore, the institutions may be recommended to support multidisciplinary patient training and counselling activities using the methods described in this study.

Key Words: Discharge Training, Counseling, Quality of Life, Discharge Problems, Coronary Artery Bypass Graft Surgery

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SYMBOLS AND ABBREVATIONS

BMI : Body Mass Index

CVDs : Cardiovascular Diseases

CAD : Coronary Artery Disease

CABG : Coronary Artery Bypass Graft

NYHA : New York Heart Association

QOL : Quality of Life

SF-36 : Short Form 36

USA : United States of America

USD : United States Dollar

WHO : World Health Organization

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1. INTRODUCTION

1.1. Problem Definition

Cardiovascular diseases (CVDs) are a group of disorders of the heart and blood vessels and include: coronary heart disease, peripheral arterial disease, rheumatic heart disease, congenital heart disease, and deep vein thrombosis, etc. (1-4). CVDs occur very frequently and are presently among the leading causes of mortality and morbidity in developing and developed countries (5). According to data from the World Health Organization (WHO) in (6), 17.3 million people in the world die annually from CVDs, 80% of these deaths are in low and middle income countries and, by 2030, this will increase to almost 23.6 million deaths from CVDs. Every day, almost 2,500 Americans die from CVDs, i.e. an average of one death every 35 seconds (7, 8). Coronary artery disease (CAD) is the leading cause of death both in America and Europe. CAD is also one of the most important health problems in Iran. The mortality rate from coronary artery disease in the United States of America (USA) was 406,351 in 2007 (9). In Iran, the incidence of atherosclerotic diseases has been increasing; and in 360 cases out of every 800 deaths have been caused by CVDs. The latest WHO data published in April (10), indicate that the number of deaths caused by coronary heart disease in Iran reached 88,027 or 26.12% of total deaths. The age adjusted death rate is 194.48 per 100,000 of population.

Coronary artery disease can be treated with medication, lifestyle changes such as diet and exercise, surgery and invasive procedures including the placement of stents, percutaneous transluminal angioplasty (PTCA), (11). Coronary artery bypass graft (CABG) surgery is one of the most commonly used methods in the treatment of CAD (12). It is known that a total of 232,000 patients underwent 408,000 CABG surgeries in the USA in 2007 (9). In 2011, more than 300,000 patients underwent CABG surgery in the USA with an initial hospital cost of approximately $30,000 per patient (13-15). It is estimated that 10,000 CABG procedures are performed annually in Turkey, but this number constitutes only one-third of CABG procedures that need to be undertaken (16). According to the Health Ministry of Iran (9), 40,000 CABG surgeries operations are performed annually in more than 35 cardiovascular surgery centers.

Coronary artery bypass graft surgery can help to restore blood flow to an area of the heart. However, surgery does not stop the progression of atherosclerosis (coronary heart disease), which deposits fatty material into artery walls, narrowing them, and eventually limiting blood flow (17). The aim of the coronary artery bypass graft surgery is to relieve angina symptoms and improve functional ability, quality of life, and survival (18). Advances in coronary artery surgery have reduced morbidity, mortality, and rates of graft occlusion. The rate of mortality at a global level is less than 2% and less than 1.3% including emergency and complex cases in most recent studies (15). Although recent developments have increased the success rate of CABG surgeries, this is not enough to eliminate all physical, psychological, and social problems that the patients face after discharge. Postoperative problems of patients undergoing CABG surgery include pain in the chest or in the legs, wound infection, leg edema due to incision, numbness in the arms, dyspnea, arrhythmia, constipation, nausea, vomiting, loss of appetite, weight loss, sleep disturbances, fatigue, weakness, dizziness, cognitive problems, poor psychosocial adaptation, and decreased sexual activity (19, 20). In addition, heart surgery causes shifting expectations, financial burden, heightened body awareness, worrying about the future, the need to discover pathways to recovery (15). Patients also may refrain from physical activity after hospitalization for fear of angina pectoris; they have difficulty in carrying out their daily activities and cannot adapt to their diets; they do not use their medication on a regular basis and are unable to care properly for their surgical wounds (21). Theobald (15) stated that people undergoing CABG surgery will encounter many issues and changes in their usual daily routine after their discharge. A study of Direk and Celik (20), reported that the patients undergoing CABG surgeries had fatigue, dyspnea, pain at the wound site, weakness, sleeplessness, loss of appetite, fear, pessimism, edema in the legs, wound dehiscence, palpitation, and constipation after their discharge. Dal et al. (22) they also reported that patients undergoing surgery experienced problems related to pain management, exercise and self-care, being helpless to solve the problems, looking for clinics or being admitted to the hospital again.

Coronary artery bypass graft surgery imposes a significant burden on patients and their families. Therefore patients and their relatives need help and support from

professionals (13). After a short hospital stay following CABG surgery, patients spend most of their recovery time at home, and they or their family members provide necessary care. The goals of home health care services are to help individuals to improve function and live with greater independence; to promote the client's optimal level of well-being; and to assist the patient to remain at home, avoiding hospitalization or admission to long-term care institutions. Discharge planning must embrace physical, psychological and social aspects of individual patient care. A primary goal of home health care and follow up is to discharge the patient to self or family care and avoid subsequent hospitalizations. Unplanned admission to hospital is an undesirable outcome of home health care that causes problems for patients, caregivers, providers, and payers. Unplanned hospital admissions are associated with complications, morbidity, patient and family stress, and increased costs (23, 24). To adapt to the new life situation, CABG surgery patients have to make considerable adjustments. These should be based on knowledge, thus allowing for competent and confident informed choices. Besides increasing their knowledge and skills, discharge training and counseling provided to patients who have undergone CABG surgery can help to ensure optimal recovery, to take responsibility for their own health, and to decrease or eliminate problems faced by patients (1). Teamwork by health professionals is important for the care of patients undergoing CABG surgeries. The nurses, as members of this team, have an important responsibility for patient care. The purpose of the nursing care for patients after CABG surgery is: that the individual receive the basic medical help in activities of daily living (ADL) as soon as they can take care of themselves, to meet their own needs, to ensure their health, and, finally, to enhance their quality of life (25). CABG is associated with long rehabilitation periods and slow improvement in quality of life (26, 27).

Postoperative nursing care, discharge planning including discharge teaching and counseling, follow-up, and teaching and counseling services by phone after discharge, are important services for the continuity of treatment. Through the discharge planning process, the necessary information and skills required by the patient and family should be provided according to the individual and family needs. This information, as well as skills training and counseling services, are provided at discharge. One of the methods in evaluating the effectiveness of instruction at

discharge is to follow up with teaching and counseling for the patient at home by phone. These services, besides evaluating the instruction given at the time of discharge, aim at minimizing the negative impact on activities of daily living, quality of life, and the influence of surgical intervention in life (28- 32). The study of Yaman and Bulut (4) found that discharge training was effective because the patients given discharge training had a higher level of information and ability to carry out their own care, and encountered fewer problems after discharge. In a study about effects of discharge training and counseling on anxiety and depression level of CABG patients, it was found that mean anxiety and depression scores of the patients in the intervention group were lower than in the control group at the time of discharge and one week and one month after discharge (1). Other studies reported that discharge training and counseling, provided with full attention to adult learning principles, using written materials together with various training techniques, and starting when the patients were hospitalized, were found to have a positive effect on self-care and to reduce the problems that the patients experienced after returning home (12,32,33). Naylor and McCauley (5), Fredericks and Yau (34) reported that the cardiac surgical patients given discharge planning and home follow-up by an advanced practice nurse in the intervention group had fewer hospital readmissions during the first six weeks after discharge, when compared with control subjects who received usual care. For this reason, patients who are undergoing CABG surgery, face difficulties, regarding their disease, treatment, and care, in adapting to survival, in their ability to maintain an adequate level of self-care, with the consequence, therefore, of readmission to hospital. Repeated hospital admissions and prolonged hospital stay increase health care costs and lower the quality of care (14). Discharge training and counseling services after CABG surgery reduce the problems experienced by patients and their families, namely, re-hospitalizations and health care costs, and increase patient satisfaction, quality of life and the patient's functional independence (26, 34). Related literature and our observations in Iran showed that the nursing care, training and consultancy services at the time of discharge were not effective or adequate, and the monitoring at home not done appropriately. In addition, there are limited studies about the quality of life of CABG patients in Iran.The results obtained from this

study can provide guidance for discharge training, counseling and follow-up services, and studies about this issue.

1.2. Purpose of the Study

The aim of this study is to investigate the effect of planned discharge training and counseling on quality of life and problems experienced by patients undergoing CABG surgery.

1.3. Hypotheses of the Study

H1: Discharge training and counseling increase the intervention group patients' quality of life after discharge.

H2: Discharge training and counseling reduce problems experienced by the intervention group patients after discharge.

2. GENERAL INFORMATION

2.1. Coronary Artery Disease

CAD is the most common cause of premature death (death before the age of 75) and causes ischemia of the heart muscles. Ischemia is a condition described as “cramping of the heart muscle.” It occurs when the narrowed coronary artery reaches a point where it cannot supply enough oxygen-rich blood to meet the heart’s needs. The heart muscle becomes “starved” of oxygen. Ischemia causes chest pain or other symptoms (8, 35).

The World Health Organization (6) predicts the prevalence of the disease to increase by 135% by 2020. Cardiovascular diseases are the most common cause of death in Iran. More than 2 million people are suffering from coronary artery diseases in Iran and there is an incidence of heart attack among at least 30 of these patients each year. Each day, about 317 people lose their lives due to these diseases. Mohammadreza Mohammadhassani (36), the deputy of the Cardiac Surgery and Transplantation Research Center, Iran, emphasized that about 40% of death in youth is due to cardiovascular diseases and this is dramatically increasing.

With the increase in the older population of the countries, and unhealthy habits and behaviors, CAD contributed death tolls are increasing. This increase is caused by modifiable risk factors including cigarette smoking and exposure to tobacco smoke, low smoking age (10–13 years old), high blood cholesterol and high triglycerides (especially high Low Density Lipoprotein: LDL), high blood pressure (140/90 mmHg or higher), uncontrolled diabetes (HbA1c >7.0), physical inactivity (exercise low), being overweight (body mass index (BMI) 25–29 kg/m2) or being obese (BMI higher than 30 kg/m2), abdominal obesity, psychosocial factors, diet low in fruit and vegetable consumption, uncontrolled stress or anger, increased salt intake, high solid oil consumption, and drinking too much alcohol. In addition, non-modifiable risk factors include male gender, advanced age, family history of heart disease, race(African Americans, Mexican Americans, American Indians, native Hawaiians and some Asian Americans), history of chronic diseases (diabetes mellitus, chronic obstructive pulmonary disease) and an early menopause in women (35, 37- 42).

Over 80% of the world death toll due to CVDs occurs in low and middle-income countries (42). People in those countries are more likely to be exposed to risk factors such as tobacco, smoking, etc. leading to CVDs and other non-communicable diseases. Studies have revealed that 5.18% to 20% of Iranians suffer from hypertension and 69% lack sufficient physical activities which contribute to 22% of cardiovascular diseases. The population of diabetes patients has reached 7 million in Iran and increases by 1% each year. The research has shown that the onset age of diabetes in Iran has decreased by 10 to 15 years compared to developed countries. Regarding obesity, based on studies, 43% of people over 15 years old are overweight to some degree (43).

Among the actions taken by health ministries, the effects of prophylactic planning and training to reduce the prevalence of cardiovascular diseases should not be neglected. For example, in Finland, the fundamental measure of educating people caused the morbidity of cardiovascular diseases to be reduced to the lowest possible rate. However, the fact that the World Health organization has announced that the cardiovascular diseases are on the brink of decreasing in developed countries while increasing in developing countries should not be ignored (44).

The basic step to be taken to achieve the goal of cardiovascular disease prevention is to support the training of individuals in terms of risk factors and their efforts against avoidable risk factors. Educating individuals about the risk factors, increasing their awareness, enabling them to receive recommended treatment and to choose a healthier lifestyle are seen as vital factors.

2.2. Coronary Artery Disease Treatment and Coronary Artery Bypass Graft Surgery

Treatment of coronary artery disease involves reducing patient risk factors, taking medications as prescribed, possibly undergoing invasive and/or surgical procedures and follow-up care. Treatment can include lifestyle changes, such as doing regular exercise and stopping smoking, as well as medication and surgery (45, 46). If lifestyle changes are not enough to control heart disease, medications may be prescribed to treat certain risk factors, such as high cholesterol or high blood pressure

(46).While many cases of angina can be treated with medication, severe angina may require a CABG to restore the blood supply to the heart (47).

CAD has been treated by myocardial revascularization since the 1960s, and the most common CABG techniques have been performed for more than 35 years (48). CABG is advised for patients with significant narrowing and blockage of the heart arteries and creates new routes, bypassing the affected arteries, allowing sufficient blood flow to deliver oxygen and nutrients to the heart muscle (49).

The aim of carrying out CABG on patients is to improve the quality of life and to eliminate the symptoms of CAD (38, 50). Approximately one million coronary artery bypass graft (CABG) surgeries are performed in the world every year, making it one of the most commonly performed major open heart operations. This operation used to only be done in the western developed countries but today it is a very common phenomenon, even in the third world countries. Coronary artery bypass surgery is the most frequently performed surgery for coronary heart disease in the United States, with the majority (54%) of operations, performed on patients the under age 65 (51). Every year, 28,000 CABGs are performed in the UK (United Kingdom). Nearly 80% of those who need to have the operation are men over 60 years old (52). In Iran, about 106 patients suffering cardiovascular disease received angiographic treatment and 17,400 patients underwent open heart surgery in 2008 years. The average age for the patients who have undergone open heart surgery and angiographic treatment is 58 while this is 68 for other countries indicating that the age of acquiring the disease is 7–10 years lower. Each year 35–50 thousand heart surgeries are performed in Iran while this number is the same for China which has a population of 1.3 billion (53).

Advances in coronary surgery (e.g., off-pump CABG, smaller incisions, enhanced myocardial preservation, use of arterial conduits, improved postoperative care, as well as widely published surgical outcomes) have reduced morbidity, mortality, and graft occlusion rates. The rate of mortality at the global level is less than 2% and in most recent studies it is less than 1.3%, including emergency and complex cases (14). In addition, clinical care of CVD is costly and prolonged. These conditions put heavy financial costs on family and societal medical care resources. CVD affects individuals at the peak of their mid-life years, disrupting the future of

the families who are dependent on them, and undermining the development of nations by depriving them of valuable human resources in their most productive years (54). The cost of surgery for patients who needed surgical treatments due to rheumatic and congenital heart disease and were to undergo coronary artery bypass or open heart surgery was approximately US$8,000. Comparing the costs in different countries it can be noted that a heart surgery costs US$1,583 in India while US$106,385 in the USA (54-56). Regarding heart bypass surgeries it is worth mentioning that the costs start at US$27,000 in the USA and US$9,500 abroad. Based on the above mentioned costs we can conclude that the average cost in the US is US$80,000 and higher (56). In addition, the Iranian Ministry of Health (56) and Khber online (57), reported that the most expensive surgeries in Iran were coronary artery bypass and graft surgeries (cost US$3,000) which could have a negative effect on the economy of the family. This is due to the fact that only a small percentage of operation costs are covered by insurance companies and the patients are forced to pay for the rest. Since the average monthly wage for each person was 4,870,000 Rial (US$162.33) in 2013, families face financial problems even in paying their proportion.

2.3. Problems after Coronary Artery Bypass Graft Surgery

Coronary artery bypass graft surgery is a major surgery, and patients may experience any of the complications associated with this surgery. The risk of death during coronary artery bypass graft surgery is about 2-3%. Possible complications include graft closure and development of blockages in other arteries, long-term development of atherosclerotic disease of saphenous vein grafts, abnormal heart rhythms, high or low blood pressure, blood clots that can lead to a stroke or heart attack, infections, and depression. Use of the heart-lung machine also can cause complications. Memory loss and other changes, such as difficulty concentrating or thinking clearly, may occur in some people. It increases the risk of clots forming in blood vessels, which can cause stroke or other problems. These complications are more likely to occur in people who are older, who have high blood pressure or lung disease, a history of smoking, or who drink excessive amounts of alcohol. They are also more likely to occur in those who have conditions such as diabetes, kidney

disease, lung disease, or peripheral vascular disease who have a reduced supply of blood to the brain. It is probable that being poor is associated with a greater degree of stress, social isolation, and inadequate access to quick or preventive treatment (58). Knowing about the multiple system changes caused by surgery will help patients and the rest of the care team anticipate postoperative problems and intervene quickly and appropriately so that the patient can have the best possible outcome (59, 60). In addition, some patients can develop a fever associated with chest pain, irritability, and decreased appetite. This is due to inflammation involving the lung and heart sac, and is sometimes seen one to six weeks after surgeries that involve cutting through the pericardium (the outer covering of the heart). This reaction is usually a mild, self-limited illness, but some patients may develop fluid build-up around the heart that requires treatment (61).

Most of the problems that patients may encounter during the first month after their discharge include problems related to the respiratory system (pneumonia, dyspnea, sputum production), circulation (edema, hypotension, hypertension), pain control, the operation area (wound infection etc.), drug use (adverse effects, lack of knowledge on the part of the user), nutrition (anorexia, nausea), excretion (constipation, urinary tract infection), exercises (not knowing how to do exercises), self-care (inability to care for oneself, not knowing how to wash oneself, not being able to get dressed on one's own), pain controls (not understanding the correct times for pain control); shoulder, back chest or leg pain; insomnia, nightmares; emotional changes; palpitation; weakness, fatigue (tiredness), mood swings, or depression, loss of appetite (22,62- 64).

In the study by Cebeci and Celik (32), it was determined that patients undergoing a heart operation experienced some physical and psychological problems such as poor nutrition, decrease in appetite, nausea and vomiting, changes in bowel habits, sleep disturbances, fatigue and activity intolerance, pain, anxiety, and depression within six months of being discharged (32). About 20% of patients get depressed after a major cardiac event such as CABG surgery. Reassurance is needed that having temporary feelings of sadness are normal for a patient and that they should go away within a few weeks as the patient gets back to normal routines and activities (60,61). Elitoğ and Erkuş (62), Mistiaen and Poot (63), in their study into

follow-up telephone and face to face contact with CABG surgery patients after their discharge, reached the following results. In the telephone contact with patients, the mostly observed requests were for medical treatments (20%), for pain control (12.6%) and to find out the suture removal date (11.3%). In the face to face counseling from the same study population, the most widely experienced problems in first week after discharge were revealed as insomnia (61.3%), backache (54%), and anorexia (42%). After three weeks the survey was repeated with the same patients and it was found that in fourth week the most widely experienced problems were fatigue (57.4%), and wound problems (56%).

Full recovery from traditional CABG may take 6–12 weeks or more. The patient will feel weak because of the extended bed rest in the hospital. However, within a few weeks, the patient should begin to feel stronger. Less recovery time is needed for nontraditional CABG, (65, 64).

2.4. Discharge Education, Counseling Services, and Follow-Up at CABG Surgery

Discharge is a short-term plan to get patients out of the hospital or institution and an attempt to ease the transition, not a blueprint for the future. As discharge approaches, patients and families may be anxious about how they will manage at home. Grafting coronary arteries and postoperative recovery have many challenges, which can be ameliorated through continuous care and an appropriate discharge plan (66). Patients must understand the risk of surgery as well as the potential harm of not doing the surgery. Heart surgeons normally discuss the risks and benefits in detail with patients prior to surgery**.** People undergoing CABG surgery, and those who care for them after discharge, will encounter many issues and changes to their usual daily routine. Before leaving the hospital, it is important for the patient and family to participate in and understand the discharge plan (20, 67, 68). They may have unmet needs and health services may not be sufficiently seamless or adequate to anticipate and address these needs, especially those to support family care givers in what may be one of the most stressful times of their lives (15). A comprehensive, well-executed, discharge plan can prevent unnecessary delays in discharge and ensure the availability of adequate support post discharge. The discharge period has been

identified as an opportunity to have a positive impact on patient outcomes and it needs to be a priority for the health-care team (69). A compassionate, knowledgeable, and skilled nurse caring for the patient after open heart surgery is an asset in the achievement of positive outcomes for the patient and his/her other relatives (13).

Appropriate discharge planning should involve the patient, caregivers, nurses, physicians, and nutritionists because a team approach is the best way to treat factors that contribute to heart disease (60). At the very outset of discharge planning, health care professionals, family caregivers, and the patient (if appropriate) should discuss issues including the patient’s condition, and any changes that may have occurred as a result of treatment at the facility; any likely symptoms, problems, or changes that may occur when the patient is at home; the patient’s care plan, the caregiver’s needs, and any adjustments that must be made to meet these needs; the potential impact of care giving on the caregiver; warning signs of stress; techniques for reducing stress (70,71).

2.4.1. Discharge Education

Education is a primary focus of such programs and helps patients and families make informed decisions regarding care. Patient education is a planned learning experience using a combination of methods such as teaching, counseling, and behavior modification techniques which influence patients' knowledge, health and illness behavior (72). in order to ensure that the patient is able to co-operate effectively in deciding on the care which he receives, to make the best possible contribution to that care, and carry out effective self-management and monitoring that is required with many acute and chronic conditions. An education plan that meets the patient's individual needs is developed with the patient and family. Providing discharge education following a surgery is one of the most common nursing approaches. Discharge education increases the quality of care in patients who have undergone heart operations, accelerating the recovery process, and it has many favorable effects on the patient and his or her family. In various studies, it has been reported that planned and systematic patient training enhances the information level of the patients, eliminates or reduces physical and emotional problems, increases

levels of self-care and satisfaction, and helps the patients resume their normal activities after discharge (4, 30). Lack of adequate discharge education given to the patient and the family gives rise to problems in carrying out activities such as movement, nutrition, excretion, respiration, sexual function, sleep, and rest, as they do not know how to cope with these problems and experience difficulties in self-care. Therefore, patients refer back to the hospitals with complaints such as lack of compliance with diet and drug regimens (especially for complications which may develop in association with anticoagulant treatment), anxiety, depression, and inadequacy in self-care (4).

In a research which studied the effect of education on patients undergoing CABG, Cebeci and Çelik (1) and Bessampor (37), confirmed the positive effect of education on reducing anxiety and depression and showed that the related scores of anxiety and depression in the intervention group were lower than in the control group at the time of discharge, one week later and one month after discharge.

2.4.1.1. Education for Adult Patients

Learning occurs within each individual as a continual process throughout life. People learn at different speeds, so it is natural for them to be anxious or nervous when faced with a learning situation. Positive reinforcement by the instructor can enhance learning, as can proper timing of the instruction. Focus on adult learning theory carries the potential for greater success and requires a greater responsibility on the part of the teacher (74).

The patients undergoing CABG surgery are mostly adults. Adult learners have many characteristics and the caregiver must notice those. Therefore, the characteristics that effect on training process are as follows (75-80):

1. Adult patients are mature people and prefer to be treated appropriately, as they should be. They learn best in a democratic, participatory, and collaborative environment. They need to be actively involved in determining how and what they learn, and they need active rather than passive learning experiences. They are self-reliant learners and prefer to work at their own pace.

2. Adults have needs which are concrete and immediate responsibility for their own learning. They tend to be impatient unless they see that information can be applied to practical problems. They are task or problem-centered rather than subject centered. This does not mean they are not interested in subject area, but their learning is not complete until it is expressed in an appropriate action. Adults are autonomous and self-directed. They are self-reliant learners and prefer to work at their own pace
3. Adults are more impatient in the pursuit of learning objectives. They are less tolerant of "busy work" that does not have immediate and direct application to their objectives. If it is not relevant to their needs, then they are probably not very interested. Optimal pacing challenges the learner. The ideal pacing for adult learners challenges people just beyond their present level of ability. If they are pushed too far beyond that level, people will give up. If they are challenged too little, they will become bored and learn little.
4. Adults are more pragmatic in learning. Adults have established opinions, values and beliefs which have been built up over time and have been arrived at following the experience of families, relationships, work, community, and politics, and so on.
5. Adults have accumulated life experiences. They are more realistic and have insights about what is likely to work and what is not. They are more readily able to relate new facts to past experiences.
6. Adults enjoy having their talents and information used in a teaching situation. They bring their own experiences and knowledge into the classroom. They like the type of learning that gives them practical activities that are built based on their prior skills and knowledge. Regular feedback mechanisms are useful.
7. Adults are intrinsically motivated in learning situations (adults stand to be more motivated). They are motivated by internal incentives and curiosity, rather than external rewards. They are also motivated by the usefulness of the material to be learned and learn better when material is

related to their own needs and interests. Factors and barriers to motivation and learning are: denial, anger, depression, anxiety and so on. Adults are intrinsically motivated.

8. Adults are sometimes fatigued when they attend classes. They appreciate any teaching devices that add interest and a sense of liveliness, a variety of methods, audio-visual aids, a change of pace and sense of humor - anything that makes the learning process easier.
9. Adults learn at various rates and in different ways according to their intellectual ability, educational level, personality and cognitive learning styles.
10. Adults generally desire more control over their learning.
11. The learner role is secondary for adults (adults fulfill multiple roles and these multiple roles inevitably create conflicting and competing demands on the adult learner; multiple roles will cause most adults to have far less time and energy to read, study, or learn).
12. Adults must fit their learning into life's “margins” (adult learners must learn to carve out some margin in their lives to allow learning to occur, a process of priority setting; if the existing demands on an adult require all the energy they possess, then the learning will be compromised).
13. Many adults suffer from lack of confidence in their learning.
14. Adults are more resistant to change. They need to be free to direct themselves.
15. Adults must compensate for aging in learning. They have aging concerns.
16. Adults are goal/relevancy oriented. Adults need to know why they are learning something.

Education of the patient after CABG surgery, in addition to monitoring all the vital organ functions of the body, and follow-up programs are very important. Therefore, patient education may contribute to facilitating home recovery, success of treatment and reduction of cost. Several researchers have shown that patients with cardiac surgery need a lot of information about what they can expect during their recovery period at home. The need to provide information to patients before and after

cardiac surgery is commonly accepted in clinical practice, while the lack of information during hospitalization and after discharge may delay recovery during this period (81).

When teaching the patient and family, the nurse should focus on the factors that influence patient education including (28, 79):

1. Patient's diagnosis and state of health,
2. Patient’s knowledge and experience,
3. The priorities of the patient's learning
4. The patient's motivation for learning and reducing the risk factors (denial, anger, depression, anxiety).
5. Types of learning (written, oral).
6. Socio-economic status of the patient.
7. Providing patient education materials and dealing with the method of presentation.
8. Cultural and religious preferences of the patient.
9. The patient's language and education level.
10. Pertaining to the patient's visual hearing and other senses deficiencies.
11. Duration of the patient's learning.
12. The patient's functional ability.
13. Age and/or developmental factors.

Intervention in nursing is a planned, organized, progressive, and logical process of teaching and learning provided to patients and clients in all clinical settings. Patient education is a significant part of regular nursing care and is an essential nursing standard practice that significantly impacts a patient’s health and quality of life (82). As Azzizadeh Forouzi (83) asserts, patients generally need information about their own illness, the treatment they undergo, side effects, complications, and about health-related problems. It is also important for patients to know about future treatments. In addition, some information is needed on daily activities, practical solutions, and on financial issues. Finally, the patient and his/her family should be fully informed about the available options and the associated procedural risks and benefits (14).

Patient education should include (82):

1. The patient's learning needs, abilities, preferences, and readiness to learn are assessed.
   a. The assessment considers and evaluates cultural and religious practices, emotional barriers, desire and motivation to learn, physical and cognitive limitations, language barriers, and financial implications of care choice.
   b. When called for by the patient's age and length of stay, the hospital assesses and provides patients' academic education needs.
   c. Patients are educated about the safe and effective use of medication, according to law and their needs.
   d. Patients are educated about the safe and effective use of medical equipment.
   e. Patients are educated about potential food–drug interactions, and provided counseling on nutrition and modified diets.
   f. Patients are educated about rehab techniques to help them adapt or function more independently in their environment.
   g. Patients are taught that pain management is a part of treatment.
   h. Patients are informed about access to additional resources in the community.
   i. Patients are informed about when and how to obtain any further treatment or follow-up care they may need.
   j. The hospital clarifies what the responsibilities of patients and their families are regarding the patient's ongoing health care needs and gives them the knowledge and skills they need to carry out their responsibilities.
   k. With respect to privacy, hospital teaches and helps patients maintain good standards for personal hygiene and grooming, including bathing, brushing teeth, caring for hair and nails, and using the toilet.

2. Patient education is interactive.
3. When the hospital gives discharge instructions to the patient or family, it also provides these instructions to the organization or an individual responsible for the patient's continuing care.
4. The hospital plans, supports, and coordinates activities and resources for patient and family education.
a. The hospital identifies and provides the educational resources required to achieve its educational objectives.
b. The patient and family's educational process is collaborative and interdisciplinary, as appropriate to the plan of care.
5. Medication instructions are given, including when to take each medication and why, the dose, the route, precautions, and possible adverse reactions, and when and how to get prescriptions refilled.

Nowadays, patients have a shorter hospital stay, and are discharged in the minimum possible time. They also have limited knowledge about how to take care of themselves after going home so when they are given adequate training, the effective communication between the patient and the nurse increases which leads to enhancement of patient satisfaction, obviation of confusion and promotion of healthy conditions after discharge (82, 84). Therefore, discharge education must take into account the characteristics of the adult and the factors that influence patient education. In 2008, the Ministry of Health in Iran constructed a combined model which was an abstract of Simmons models to promote health. A part of this model puts an emphasis on face to face relations and education by the nurse or care giver. In 2000, patient education becoming a law in nursing care was sent to health centers (85).

To achieve better results, after patient education, nurses must carry out follow-up care, counseling services, which continue during patients' home care to achieve lower incidences of problems after surgery.

2.4.2. Consultancy

After a major cardiovascular event, patients experience many problems regarding the outcome of the disease or rehabilitation. Recovering from a cardiac

event is a complex procedure that presents psychological and physical needs that continue even after discharge from hospital (86).

Counseling involves talking with a person in a way that helps him/her to solve a problem or helps to create conditions which will cause the person to understand and/or improve his behavior, character, life values, and circumstances (87). Sometimes, the term “counseling” is used to refer to talking therapies in general, but counseling is also a specific type of therapy in its own right (88). Although helping patients to change behaviors is difficult, certain counseling interventions are effective (89). Other researchers asserted that the main components of planned discharge training and counseling intervention are to help them develop self-care behavior to deal with the problems caused by the disease more comfortably and reduce the number of problems they may encounter (32, 90- 92).

Counseling is the application of mental health, psychological or human development principles, through cognitive, affective, behavioral or systemic intervention strategies, that address wellness, personal growth, or career development, as well as pathology. Thus, counseling focuses on helping people make changes, unlike guidance which focuses on helping individuals choose what they value most. Therefore, a counselor is a person who gives counsel or advice. The primary purpose of counseling is to empower the client to deal with his/her current conditions adequately, reduce stress, experience personal growth, and make well-informed, rational decision (93).

The role of the consultant nurse is to work in conjunction with consultant medical colleagues to develop and deliver a comprehensive service which is thoroughly reflective of patients’ needs. Focus is on those aspects of the service that meet national targets, shaping service delivery and maximizing the knowledge and skills of existing practitioners. This will require complex knowledge and expert skills with a strong emphasis on multi-professional collaborations. The consultant nurse on the one hand would support modernization strategies through service development and on the other hand would be engaged in the education and professional development of cardiac nurses both in terms of their existing role and that of highly specialized roles. The consultant nurse is expected to work in close collaboration with other key nursing post holders such as lead nurses, clinical educators and the

reader/professor. The nurse is also expected to hold an honorary academic contract with local higher education institutions. It is recognized that the consultant nurse role, based on its four domains (expert practice; professional leadership and consultancy; education, training and professional development; practice and service development, research and evaluation) will contribute towards establishing care standards and shaping future strategies (94). The patient consultants in CABG must include the following issues in their consultation policy:

1. Acquiring a proper understanding of the patient's status, active listening with empathy,
2. Paying sufficient attention to patient,
3. Behaving according to the discussion,
4. Making the patient feel comfortable and relaxed,
5. Interviewing/asking pointed questions (open-ended and probing questions),
6. Reflecting feelings (praise appropriate practices, providing useful information and negotiating changes, taking advantage of local language),
7. Being consistent in giving advice, summarizing and paraphrasing (important skills to perform effective counseling).

In addition, physical barriers, differences in social and cultural background, non-verbal communication and barriers caused by the patient or client are among those obstacles which block the way to achieve fruitful and effective counseling (95). Also, in Iran, there is not a consultant nurse, but nurses working in clinics provide counseling services according patients' needs.

2.4.3. Follow-Up

Generally, most patients can leave the hospital 4–5 days after surgery. It is important for home care to have family members or friends available to assist clients in the first week at home. Patients also need to make an appointment with their cardiac surgeon four to six weeks after discharge. Therefore, the cardiac surgeon determines the time for the next visit. After the patient's discharge from the hospital, a nurse from the cardiac surgery office calls the patient at home to check on how patients are progressing. The nurse asks about their incisions, activity level, and

follow-up appointments. If they are transferred to an extended care facility, the nurse contacts the facility for progress reports. Follow-up care is of great importance since people who have had bypass surgery have a significantly increased risk of more cardiac events, including recurrent chest pain, heart attack, heart failure, and an increased risk of death. The risk of these problems is greatly reduced by closely following a clinician's recommendations for rehabilitation, follow-up visits, and treatments. Over time, the treatment plan may change as heart health improves or other medical problems develop (95, 96).

2.5. Coronary Artery Bypass Graft Surgery and Quality of Life

The rapid development of technology and growing scientific knowledge in the field of cardiovascular issues has led to the use of therapies, interventions, and multiple treatments aimed at treating cardiovascular diseases. In parallel, as life span has extended in recent years, the purpose of health care becomes not only to prolong the life of patients but also at the same time to deal with individual problems in order to improve the quality of life by encouraging self-care. Recently, observing patients' rights and making them aware of their rights which allow them to comment on the treatments they have undergone at health services, is one of the factors affecting quality of life. Other factors affecting quality of life in patients with CABG are physical wellbeing, social support presence, social relationships, personal development, self-realization, self-confidence, self-esteem, independence, entertainment, recreation, and economic conditions (27, 97, 119). The World Health Organization (98) defines quality of life as an individual's perception of their position in life in the context of the culture and value systems in which they live and in relation to their goals, expectations, standards and concerns (98). It is a broad ranging concept affected in a complex way by the person's physical health, psychological state, level of independence, social relationships, personal beliefs and their relationship to salient features of their environment. The Constitution of the WHO, defines health as “A state of complete physical, mental, and social well-being not merely the absence of disease” (99). It follows that the measurement of health and the effects of health care must include not only an indication of changes in the frequency and severity of diseases but also an estimation of wellbeing and this can be

assessed by measuring the improvement in the quality of life related to health care (100).

The success of cardiac surgery is measured by low mortality, relief of symptoms and improvement in the quality of life. However, most of the patients do experience relief of symptoms after surgery as they become more active and independent**.** The disability can be reduced through helping the patient and the family to understand the recovery process. This understanding can be enhanced by focusing on some of the predictable problems that the patient may encounter during home recovery period. The CABG operation is indicated both for the relief of symptoms and for the prolongation of life (59).

Manie (38) claims that CABG surgery is aimed at improving not only survival but also quality of life. For several decades, quality of life has been the key end-point of adult cardiac surgery. Quality of life is an objective measurement to assess a patient's outcome after CABG surgery. It encompasses aspects of a patient's life such as family, education, sport/hobbies, social responsibilities, and financial and health status. All these areas affect a patient's perception of his or her quality of life (97-100). Compared to earlier studies, current studies have shifted their focus to more functional end-points and to the resumption of patients' daily activities which are defined as health related quality of life outcomes (101).

Patients discharged to the community need to adopt self-care behaviors in order to cope with disease conditions. A counseling service for lifestyle changes can affect subsequent quality of life (102). Lifestyle changes may include quitting smoking, making changes in your diet, getting regular exercise, and lowering and managing stress. Taking medicines as prescribed is also an important part of care after surgery. Medicines may be prescribed to manage pain during recovery; to lower cholesterol, blood pressure, and the chance of developing blood clots; to manage diabetes; or to treat depression (103).

Cardiac rehabilitation (CR) programs are interventions aimed to reduce mortality and morbidity of patients with ischemic heart diseases through promoting a healthier lifestyle among patients and restoring, maintaining, or improving both physiologic and psychosocial outcomes, and, finally, improving the quality of life in patients through a combination of exercise, education and psychological support

(104). Although functional capacity and the physical component of quality of life are improved, factors that influence them still remain unclear. It seems that mental health status and personality profile, as well as the alternative modalities of rehabilitation, might play an important role in the long-lasting effects of improvement (105). Aging, low socioeconomic status, gender, chronic illness, dependence on daily life activities, marital status, sleep programs, environment in which people live, fatigue, the presence of co-morbid disease, patient participation in treatment, changing lifestyle behaviors, continuation of complex medical treatments, physical and emotional symptoms (pain, depression, anxiety, anger, etc.), physical well-being, social support, personal development, self-realization, self-confidence, self-esteem, leisure have effects on quality of life after CABG surgery. These factors are measured in the evaluation of the quality of life (97,106).

For increasing quality of life in patients with CABG surgery, the caregiver and client must work together on complexities. The complexities of care in patients with advanced heart failure, ischemic coronary artery disease, and dysrhythmias span a wide spectrum of physiologic, psychological, emotional, functional, social, and financial factors. In addition, families may be troubled by care needs associated with the cardiovascular disease itself or its complexities (4, 26).

3. MATERIALS AND METHODS

3.1. Type of Study

This semi-experimentally study was planned to investigate the effects of planned discharge training and counseling on the quality of life and post-discharge problems of the patients undergoing CABG surgeries.

3.2. Characteristics and Setting of the Study

This study was carried out in the surgery department of Seyed-al-Shohada Cardiology Subspecialty Hospital affiliated with Urmia University Medical Sciences in Urmia, Iran. The aforementioned hospital including a polyclinic, a clinic, and an intensive care unit, accommodates 155 patients. There are three patient examination rooms in the polyclinic. Thirteen nurses give care preoperatively and postoperatively in the clinic with 23 beds. Fourteen nurses work in the intensive care unit which contains ten beds. The nurse's work in three different shifts (7.30–14.30; 14.00–20.30; 20.00–08.00). Five nurses work in the morning shift while three nurses each work in the evening and night shifts.

The hospital performs coronary artery bypass graft surgery, heart valve replacement, heart transplant, and surgical interventions for congenital heart diseases. The patients who will undergo surgery are admitted to the clinic a day before their surgery and are discharged approximately four days after their surgery. There is no planned discharge training, counseling or follow-up counseling service at this hospital. However, educational brochures related to CABG surgeries and heart valve replacements are delivered to the patients undergoing these surgeries at discharge. These two-page brochures contain information about wound care, compression sock usage, the potential problems that they will encounter, walking, exercising, and taking medications, driving, check-up time, smoking and alcohol usage. The patients are invited to the polyclinic for check up by the doctor related to their case, a week and a month after their discharge.

3.3. Population of the Study

The study population consists of patients who have undergone CABG surgeries at the surgery department of Seyed-al-Shohada Heart Hospital in Urmia. In this hospital, 340 patients had undergone CABG surgeries between March 21, 2011 and March 20, 2012.

3.4. Sample of the Study

The sample size calculation was done using the NCSS (Number Cruncher Statistical System) – PASS (Power Analysis and Sample Size) 2006 software. Based on the results of a study, a sample size of approximately 100 patients would be sufficient to give 80% power to detect an increase of 20% in the mean score in any subscale of the SF-36 at 5% significance level (107). The sample of this study consisted of 100 patients having CABG surgeries. Of 100 patients, 50 were placed in the intervention group while the remaining 50 were in the control group. The criteria based on which the patients were selected are as follows:

Those who

1. Had undergone their first and elective CABG surgery,
2. Had experienced no other surgical intervention during CABG surgery,
3. Had no prior psychiatric diagnosis or treatment last six months,
4. Had the heart-lung machine during CABG surgery,
5. Were literate,
6. Had no hearing, comprehension or speech problems.

Research criteria for removal from the sample:

1. Not wanting to continue the study,
2. Not inhabitant in the region,
3. Dying during the study time.

3.5. Data Collection

3.5.1. Data Collection Tools

Three data collection tools entitled “Personal information form” (Appendix I), “The home follow-up form after discharge” (Appendix II), and “Iranian Version SF-36 Health Survey” (Appendix III) were used in the study.

3.5.1.1. Personal Information Form

The personal information form was developed by the researcher and consisted of 16 (section A) and 7 (section B) sub-categories (Appendix I). The total items on this form were questions about height, weight, gender, age, educational status, marital status, work status, place of residence, economic status, whether living alone or not, length of CAD, history of CABG surgery in close relatives, suffering from chronic (long term) disease, the duration of suffering from chronic disease, history of surgeries, presence of CAD-inducing factors (smoking, excessive alcohol consumption, hypertension, diabetes, obesity, family history of CAD) and New York Heart Association (NYHA) -based effort capacity, which is a subjective estimate of a patient's true functional ability. In addition, there were information about the number of replaced veins, length of cross-clamping, total duration of pumping, status of complication development during the patient`s surgery, and duration of stay in the intensive care unit and hospital.

3.5.1.2. The Home Follow-up Form after Disch

The researcher developed this form by using a wide variety of resources and consulting experts (Appendix II). The total items of this form were questions regarding any physical, psychosocial and communication problems or difficulties experienced, by the patients after discharge such as respiratory difficulty, fatigue, chest pain, palpitation, edema of the legs, loss of appetite, nausea, constipation, drainage from or redness at the surgical wound, introversion, unwillingness to make social contact, fear, attention deficit problem, refusal to see visitors, insomnia, and back pain. In addition, it included three questions about with whom the patient would live during the six weeks after discharge, the educational level of the person helping

to care after discharge, and the information resource most widely used after discharge.

3.5.1.3. Iranian Version SF-36 Health Surv

SF-36 Health Survey has 36 items and was developed by Rand Corporation in 1992 (107). When the scale was adapted for use in Iran by Montazeri et al (108), Cronbach's alpha was found ranging from 0.65 to 0.90 in the validity and reliability study. The SF-36 includes one multi-item scale that assesses eight health concepts: (1) Limitation in physical functions because of health problems (PF-10 items); (2) Limitation in social activities because of physical or emotional problems (SF-2 items); (3) Limitation in usual role activities because of physical health problems (RP-4 items); (4) bodily pain (BP-2 items); (5) general mental health (MH-5 items); (6) limitation in usual role activities because of emotional problems (RE-3 items); (7) vitality (VT-4 items) and (8) general health perceptions (GH-5 items). Each scale consists of two to ten items, and each item is rated 2–6 points on the Likert scale (Appendix III). The scale score is calculated by summation of all the scores of items belonging to the same scale from 0 to 100 with higher scores indicating higher levels of function and/or better health (107, 108).

3.5.2. Discharge Training Booklet

The researcher developed the training booklet by using a wide variety of resources and consulting experts (Appendix VIII). The training booklet included the following headings:

1. CAD, CABG surgery and its purpose.
2. How to get CABG surgery and how to prevent recurrence of CAD to avoid a new blockage of the arteries.
3. Things you should do or avoid after returning home.
4. When to call the physician, what medications to take, advices to follow.
5. Signs and symptoms of complications.
6. What to do for feeling better emotionally after the surgery.
7. Lists of foods recommended and not recommended for a healthy heart, treatment and follow-up tables.
8. Wound care.

9. Walking, exercise, and slow movements.
10. When to resume sex and when to come for follow-up.
11. How to measure and record body temperature, pulse and artery blood pressure.
12. Using varicose compression stockings.

3.6. Pilot Study

Data collection tools and the discharge training booklet were tested for structure and clarity in the pilot study. Therefore, 10 patients consisting of 10% of the sample participated in the pilot study. The results of this pilot study entailed modifications which have done on incomprehensible statements in the training booklet and questions on the visit form.

3.7. Study Implementation

Study implementation was done between January 1 and August 15, 2013 (Figure 1). The intervention group had consisted of those patients who received both planned discharge training and counseling services during the time of their hospitalization and provided home visit or given counseling by phone after discharge while the control group had routine nursing care that included applying medicines and measuring vital signs with no planned training services. Discharge training and counseling services were applied according to patients' individual needs and through a training booklet which was developed for this purpose.

In the present study, in order to avoid the samples' influence on each other, the research started from the control sample. After sampling the control group, the intervention group was sampled. Patients in the intervention group were given discharge training according to the "Discharge Training Booklet" by the researcher.

3.7.1. Control Group

1. The researcher filled in "Personal information form" (Appendix I) and the "Iranian Version SF-36 Health Survey" (Appendix III) for control group patients in the first 24 hours after admission to the surgical unit by using the face to face interview method.
2. The nurses gave routine nursing care to the patients in the control group.

3. The day that the patients in the control group were discharged, the researcher filled in “Personal information form (Appendix I) regarding patients’ surgery and postoperative period according to file and observation form for the patients.
4. The researcher filled “The home follow-up form” (Appendix II) by calling them at 48 hours and ten days following discharge.
5. The researcher filled “The home follow-up form” (Appendix II) and "Iranian Version SF - 36 Health Survey” (Appendix III) by calling them at six weeks after their discharge.

3.7.2. Intervention Group

1. After finishing the control group, the researcher filled in “Personnel information form” (Appendix I) and the “Iranian Version SF-36 Health Survey” (Appendix III) for the intervention group patients in the first 24 hours after admission to the surgical unit by using the face to face interview method.
2. Twenty four hours after the intervention group patients with CABG surgeries were admitted to the surgical unit from the intensive care unit, the researcher determined the interview time that was most appropriate for the patients and the hospital ward procedures. At the interview, the researcher delivered copies of the booklet to the patients in the intervention group on the day of their hospitalization, explaining that reading the information provided inside the booklet helped them, and encouraged them to ask questions when they did not understand a topic and to express their problems clearly in order to explore possible solutions during training.
3. The researcher determined the teaching time that was most appropriate for the patients and the hospital ward procedures. The researcher gave discharge training according to the educational booklet to the intervention group patients in the educational room or in their own room, with individual training between 9.00–12.00 and 15.00–22.00. Counseling sessions aimed at answering the questions of patients and relatives and

correcting inappropriate practices which had not been covered in the teaching sessions. Discharge training was given in the appropriate room on the same floor equipped with sufficient light, proper ventilation and silence, with windows and enough chairs for ten patients to sit. Along with patients' training, the training booklet, educational tools such as slides, power point presentation, educational posters, educational models, thermometer, stethoscope and sphygmomanometer were used. In addition, the researcher used different methods of teaching (questions and answers, demonstration, giving feed-back, emphasis on reinforcement points, and summary of important training points) according to the training given to patients and family members, and gave attention to patient's non-verbal behaviors.

4. The day that the patients in the intervention group was discharged, the researcher filled in "Personal information form" about patients' surgery and postoperative period according to the patient files and observation forms.
5. The researcher filled "The home follow-up form" (Appendix II) by visiting at their home or calling them at 48 hours and ten days following discharge. Also, counseling services according to patients' needs, and the booklet were provided by the researcher to meet the patient's and their family's needs.
6. The researcher filled "The home follow-up form" (Appendix II) and the "Iranian Version SF-36 Health Survey" (Appendix III), calling them at six weeks after their discharge, and counseling services were continued.

Every patient training time was an average of 60–220 minutes (mean: 140 minutes). For better training, at least one family member was with the patient and instructed the patient in order to help the patient. In all individual training, patients' characteristics (interests, ability, learning needs) were taken into account.

3.8. Evaluation of Data

The data were be analyzed using the Statistical Package for the Social Sciences (SPSS Inc., Chicago, Illinois, USA) version 23.0 software package. Frequency and percentage were be used to describe the data, and the paired sample t-test, Variance analysis ANOVA test and chi-squared test were be used for analyzing data. For examining the equality of variance, Levene's test is used.

Dependent variables of the study included quality of life and post discharge problems while independent variables were age, sex, profession, job status, marital status, place of residence, who lives with the patient, educational level, health insurance, income status, number of the people in the family, care givers of the patient, CAD process, existence of coronary heart disease in the family, history of coronary artery bypass graft surgery in the family, the presence of additional diseases, CABG factors, NYHA Class (New York Heart Association Class), number of replaced vessels, cross clamp time, duration of surgery, and length of hospital stay.

3.9. Ethical Considerations

Permission for the study was granted by the Hacettepe University Ethics Committee (Appendix IV). The necessary written approval was obtained from the administration department of the hospital prior to this study (Appendix V). Patients were informed about the study and written informed consents were obtained (Appendix VI).

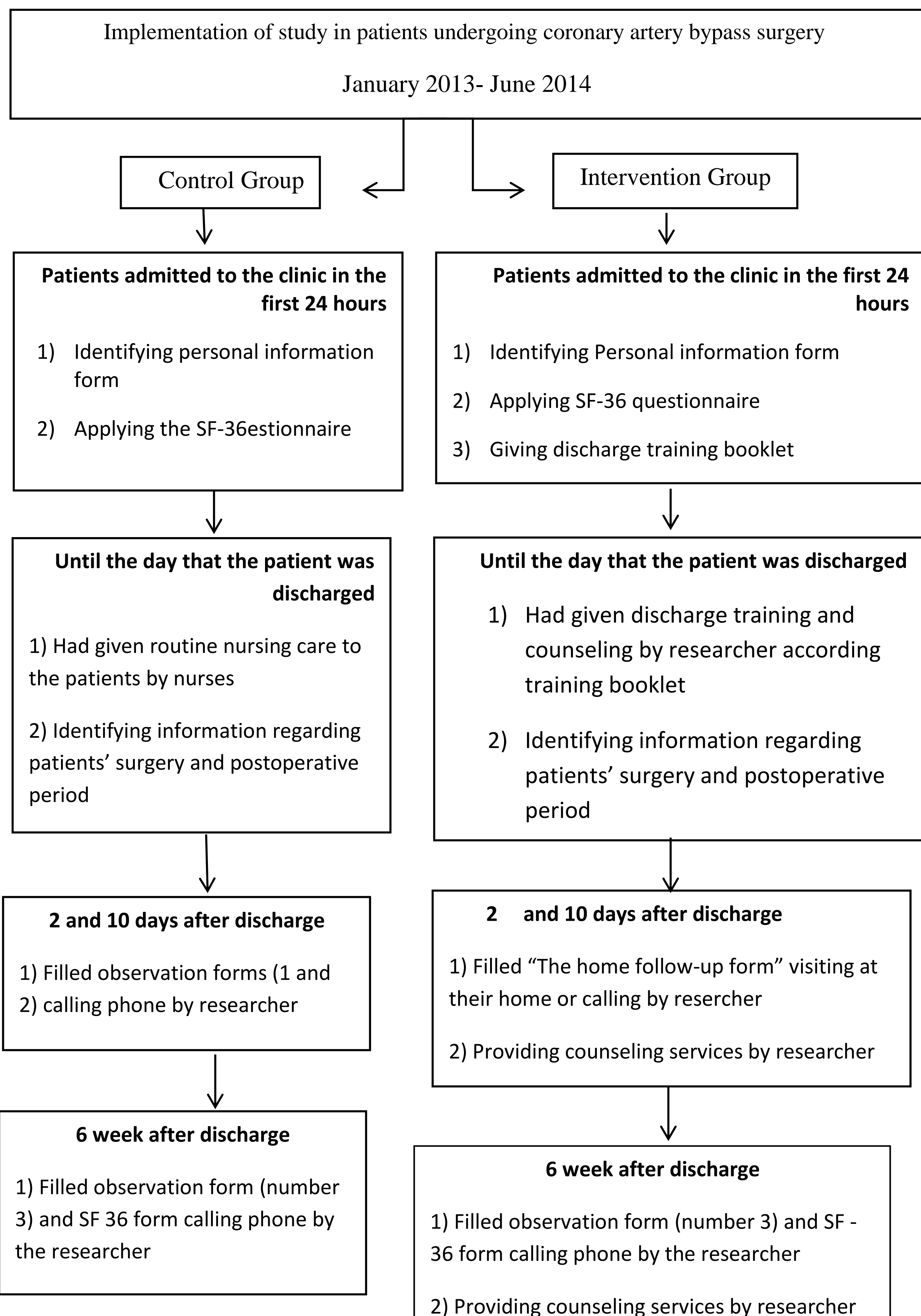

Figure 1. Flow Chart about Study Implementation

4. FINDINGS

The findings of this study included patients' descriptive characteristics, health status and habits before surgery, distribution of disease, current hospital and operation experiences, distribution and comparative information in follow-up, problems experienced after discharge and the comparison of life quality before surgery and six weeks after discharge.

Table 4.1. Characteristics of Control and Intervention Group Patients

Characteristics	Control Group (n=50)		Intervention Group (n=50)		Statitical Evaluation
	F	%	F	%	
Live in					
City	40	80.0	33	66.0	X^2= 2.48
Village	10	20.0	17	34.0	P=0.08
Gender					
Male	40	80.0	38	76.0	χ^2= 0.23
Female	10	20.0	12	24.0	P=0.62
Marital Status					
Married	46	92.0	49	98.0	Fisher
Divorced	4	2.0	1	2.0	P=0.16
Education Level					
Literacy	21	42.0	16	32.0	χ^2=8. 0
Primary	9	18.0	16	32.0	P=0.09
Elementary	5	10.0	10	20.0	
High school and upper	15	30.0	8	16.0	
Job Status					
Employed	36	72.0	27	54.0	Fisher
Unemployed	14	28.0	23	46.0	**P=0.03**
Income Status					
Income lower than expenses	8	16.0	7	14.0	χ^2=1.10
Income higher than expenses	15	30.0	11	22.0	P=0.57
Balance between income and expenses	27	54.0	32	64.0	
Life Status					
Living alone	1	2.0	5	10.0	Fisher
Not living alone[a]	49	98.0	45	90.0	P=0.09
Body Mass Index ($\bar{x}$:26.94, SD:3.74)	26.75±3.25[b] (19.71-33.80)		27.12 ±4.19 (19.0-38.16)		t=0.49 P= 0.16
Age ($\bar{x}$:59.94, SD:9.28)	61.06±9.24 (35-77)		58.82±9.26 (34-79)		t=0.23 P=0.65

[a] With spouse, Spouse and my child/ children, my child/ children, Brother, [b] Mean ± standard deviation (min-max)
[*]The significance level of p <0.05 was accepted.

Statistical analyses showed that the control and intervention groups did not differ significantly in terms of descriptive characteristics (Table 4.1).

Table 4.2. Habits and Health Status of Control and Intervention Group Patients before Surgery

Health Status and Habits	Control Group (n=50)		Intervention Group (n=50)		Statitical Evaluation	
	F	%	F	%		
Smoking	20	40.0	22	44.0	χ^2=0. 16	P=0.68
Alcohol Abuse	2	4.0	1	2.0	χ^2=0.34	P=0.55
Had Chronic Illness [a]	11	22.0	21	42.0	χ^2=4.59	**P=0.03**
Had CAD in Family	13	26.0	17	34.0	χ^2=0.76	P=0.38
Had CABG Surgery in Family	6	12.0	8	16.0	χ^2=0.33	P=0.56
Previously had Surgery [b]	19	38.0	22	44.0	χ^2=0.37	P=0.54

[a] Chronic diseases included hypertension, diabetes mellitus, asthma, dyspnea, arthritis
[b] Previously had surgeries included head and neck surgery, hands and feet surgery, gynecological surgery, eye surgery
* The significance level of p <0.05 was accepted.

According to Table 4.2, statistical analyses showed that the control and intervention groups did not differ significantly in terms of health status and habit characteristics. However, it was found to differ significantly in terms of chronic illness between intervention and control group ($p<0.05$). Statistical analyses showed that this factor at six weeks after their discharge had no effect on the Quality of Life score of patients of both groups ($p >0.05$) (Additional Table 4).

Table 4.3. Current Hospital and Operation Experiences of Control and Intervention Group Patient

Current Hospital and Operation Experiences	Control Group (n=50)		Intervention Group (n=50)		Statitical Evaluation
	$\bar{x}$± SD (min-max)		$\bar{x}$± SD (min-max)		
Duration of Surgery (Hours)	7.46 ± 1.21 (7.14-7.77)		7.38 ± 0.99 (7.05 - 7.66)		t=0.73 P=0.29
Length of Stay in ICU (Hours)	79.68 ± 17.10 (75.60-83.87)		79.68 ± 21.37 (75.18-86.81)		t=1.00 P=0.84
Length of in Hospital Stay (Days)	10.62 ± 3.80 (9.79-11.88)		10.38 ± 4.31 (9.28-11.76)		t=0.76 P=0.74
Cross Clamp Time (Minutes)	79.26±29.99 (71.29-86.90)		72.58± 22.57 (65.23-80.36)		t=0.21 P=0.22
Number of Saphenous Veins Used	3± 0.80 (2.71-3.25)		2.86 ± 0.88 (2.64-3.11)		t=0.41 P=0.30
Hospital Readmission	n=10	f: 20%	n=6	f:12%	χ^2=1.19 p=0.20

*The significance level of p <0.05 was accepted.

Statistical analyses showed that the control and intervention groups did not differ significantly in terms of having diseases, hospital and operation experiences (Table 4.3).

Table 4.4. Infırmation about the Care Givers of Control and Intervention Group Patients after Discharge

Information about Care Givers after Discharge	Control Group (n=50)		Intervention Group (n=50)		Statitical Evaluation
	F	%	F	%	
Caregivers during six weeks after discharge (n:48)					
Wife	11	22	5	10	χ^2=3.45 P=0.178
Wife and Children	28	56	36	72	
Children	11	22	9	18	
Educational level of caregivers					
Illiterate+Literacy	6	12.0	4	8.0	χ^2= 6.694 P=0.153
Primary	5	10.0	14	28.0	
Elementary	12	24.0	7	14.0	
High school	17	34.0	13	26.0	
University	10	20.0	12	24.0	

*The significance level of p <0.05 was accepted.

According to Table 4.4, statistical analyses showed that the control and intervention groups did not differ significantly in terms of information about their care givers.

Table 4.5.a. The Problems Experienced by Control and Intervention Group Ptaients after Discharge

Problems	Control group (n=50)		Intervention group (n=50)	
	F[a]	%	F[a]	%
Respiratory System				
Respiratory Diffuculty	27	54.0	15	30.0
Cardiovascular System				
Blood Pressure Problems	10	20.0	3	6.0
Palpitation	20	40.0	7	14.0
Gastrointestinal System				
Loss of Appetite	29	58.0	23	46.0
Nausea	2	4.0	3	6.0
Vomiting	0	0	1	2.0
Constipation	17	34.0	11	22.0
Diarrhea	2	4.0	3	6.0
Wound Healing				
Wound Edema				
Leg	26	52.0	12	24.0
Chest	6	12.0	1	2.0
Leg & Chest	14	28.0	1	2.0
Wound Pain				
Leg	13	26.0	7	14.0
Chest	11	22.0	1	2.0
Leg & Chest	19	38.0	1	2.0
Wound Drainage				
Leg	5	10.0	5	10.0
Chest	3	6.0	3	6.0
Leg & Chest	1	2.0	0	0
Wound Redness				
Leg	11	22.0	3	6.0
Chest	3	6.0	4	8.0
Leg & Chest	16	32.0	1	2.0
Problems in Social Life				
A Refusal to See Visitors	15	30.0	4	8.0
Unwillingness to make Social Contacts	20	40.0	6	12.0
Neurological Problems				
Dizziness	13	26.0	9	18.0
Fatigue	33	66.0	21	42.0
Psychological Problems				
Pessimism	4	8.0	5	10.0
Attention Deficit Problem	21	42.0	3	6.0
Weakness	27	54.0	14	28.0
Introversion	28	56.0	10	20.0
Fear	9	18.0	3	6.0
Sleep Problems				
Difficulty in Falling Asleep	36	72.0	14	28.0
Insomnia	36	72.0	8	16.0

Table 4.5.b. The Problems Experienced by Control and Intervention Group Ptaients after Discharge

Problems	Control group (n=50)		Intervention group (n=50)	
	F[a]	%	F[a]	%
Pain				
Chest Pain	40	80.0	34	68.0
Back Pain	34	68.0	23	46.0
Shoulder Pain	36	72.0	16	32.0
Other Problems [b]	49	98.0	10	20.0

[a]: If patient has experienced problem once after discharge, there are considered as "problem".
[b]: Other problems included fever, abdominal distention, headache, numbness, more sputum, cold feet, throat, chill swathing, sensitivity to odors, sexuality.

Table 4.5[a, b] shows the frequency and percentage of problems in both groups. Most of the problems (>50%) were defined in the control group, namely respiratory problems, loss of appetite, fatigue, weakness, introversion, difficulty in falling asleep, insomnia, chest pain, back pain, shoulder pain; in the intervention group only chest pain (> 68%) was found.

Respiratory difficulty, blood pressure, palpitation, wound edema in leg, chest and both, wound pain in leg and chest, wound redness in leg and leg and chest, a refusal to see visitors, unwillingness to make social contacts, fatigue, attention deficit problem, weakness, introversion, difficulty in falling asleep, insomnia, back pain, shoulder pain and other problems (abdominal distention, headache, numbness, more sputum, cold feet, throat, chill swathing, sensitivity to odors, sexuality), differences have been found statistically significant between the control and intervention group, ($p<0.05$) (Additional Table 1).

Table 4.6.a. The Problems Experienced by Control and Intervention Group Patients during Follow-Ups after Discharge

Problems	Follow-up1				Follow-up2				Follow-up3			
	Control group (n=50)		Intervention group (n=50)		Control group (n=50)		Intervention group (n=50)		Control group (n=50)		Intervention group (n=50)	
	F	%	F	%	F	%	F	%	F	%	F	%
Respiratory System												
Respiratory Difficulty	23	46.0	11	22.0	24	48.0	2	4.0	16	32.0	2	4.0
Cardiovascular System												
Blood Pressure Problem	9	18.0	1	2.0	9	18.0	2	4.0	8	16.0	-	0.0
Palpitation	15	30.0	5	10.0	14	28.0	1	2.0	13	26.0	2	4.0
Gastrointestinal System												
Loss of Appetite	27	54.0	19	38.0	30	60.0	4	8.0	17	34.0	-	0.0
Nausea	2	4.0	2	4.0	2	4.0	-	0.0	-	0.0	-	0.0
Vomiting	1	2.0	-	0.0	1	2.0	-	0.0	-	0.0	-	0.0
Constipation	16	32.0	8	16.0	18	36.0	1	2.0	12	24	1	2.0
Diarrhea	1	2.0	2	4.0	2	4.0	2	4.0	-	0.0	-	0.0
Wound Healing												
Wound edema												
Leg	21	42.0	9	18	21	42.0	3	6	19	38.0	1	2.0
Chest	5	10.0	-	0.0	5	10.0	-	0.0	2	4.0	-	0.0
Leg & Chest	13	26.0	-	0.0	11	22.0	-	0.0	8	16.0	-	0.0
Wound pain												
Leg	6	18.0	6	12.0	5	10.0	1	2.0	8	16.0	-	0.0
Chest	7	14.0	-	0.0	10	20.0	-	0.0	6	12.0	-	0.0
Leg & Chest	19	38.0	-	0.0	13	26.0	-	0.0	8	16.0	-	0.0
Wound drainage												
Leg	5	10.0	4	8	4	8.0	3	6	3	6.0	-	0.0
Chest	4	8.0	1	2	5	10.0	-	0.0	4	8.0	-	0.0
Leg & Chest	1	2.0	-	0.0	1	2.0	-	0.0	-	0.0	-	0.0
Wound redness												
Leg	7	14.0	3	6.0	8	16.0	1	2.0	4	8.0	-	0.0
Chest	3	6.0	1	2.0	4	8.0	1	2.0	1	2.0	-	0.0
Leg & Chest	16	32.0	-	0.0	7	14.0	-	0.0	1	2.0	-	0.0
Problems in Social Life												
A refusal to See Visitors	10	20.0	4	8.0	12	24.0	1	2.0	9	18.0	-	0.0
Unwillingness to Make Social Contacts	17	34.0	5	10.0	18	36.0	2	4.0	9	18.0	-	0.0
Neurological Problems												
Dizziness	10	20.0	5	10.0	8	16.0	-	0.0	9	18.0	3	6.0
Fatigue	34	68.0	20	40.0	27	54.0	10	20.0	23	46.0	-	0.0
Psychological Problems												
Pessimism	4	8.0	3	6.0	4	8.0	3	6.0	2	4.0	1	2.0
Attention deficit problem	17	34.0	2	4.0	20	40.0	-	0.0	14	28.0	-	0.0

Table 4.6.b. The Problems Experienced by Control and Intervention Group Patients during Follow-Ups after Discharge

Problems	Follow-up1				Follow-up2				Follow-up3			
	Control group (n=50)		Intervention group (n=50)		Control group (n=50)		Intervention group (n=50)		Control group (n=50)		Intervention group (n=50)	
	F	%	F	%	F	%	F	%	F	%	F	%
Weakness	26	52.0	10	20.0	24	48.0	7	14.0	19	38.0	-	0.0
Introversion	25	50.0	9	18.0	25	50.0	3	6.0	18	36.0	-	0.0
Fear	7	14.0	3	6.0	6	12.0	1	2.0	5	10.0	-	0.0
Sleep Problems												
Difficulty in Falling Asleep	37	74.0	11	22.0	35	70.0	1	2.0	30	60.0	-	0.0
Insomnia	38	76.0	5	10.0	35	70.0	-	0.0	29	58.0	-	0.0
Pain												
Chest Pain	37	74.0	29	58.0	42	84.0	12	24.0	40	80.0	-	0.0
Back Pain	31	62.0	21	42.0	31	62.0	4	8.0	25	50.0	-	0.0
Shoulder Pain	33	66.0	13	26.0	34	68.0	5	10.0	24	48.0	-	0.0

As the above tables reveal, the extent of the reported problems in all cases was higher in the control group than the intervention group (Table 6a, Table 6b). The third conducted follow-up showed that of the reported problems in the control group, only nausea, vomiting, diarrhea and wound drainage in legs and chest, which account for 12% of the problems, were solved and 88% were unsolved, whereas a steep slope of solving problems is observed in the intervention group. The observations showed that in the intervention group only 11.4% of the problems were unsolved at the third follow-up.

According to additional table 2, it is found that most of the interventions for solving problems in patient and family visits and counseling were: physicians calling patients, giving recommendations, doing massage on back and left shoulder, giving advice on nutrition and social life, psychological consultation to make interventions have a suitable effect. The most implemented initiatives in the intervention groups were giving information, consultation, and implemented initiatives were as follows: in the case of problems arising the instructions were to consult with physician, recommend exactly what the instructional booklet included, do nutritional regulation according to the education booklet, sleep, don't do Valsalva's maneuver and prevent constipation. The implemented initiatives were: encouraging patients to express their feelings, recommend doing exactly what is included in the instructional booklet (Additional Table 2). Of all the obtained problem reports from the patients in the

control group after third follow-up only wound red, sleep problems and pain were solved. The most reported problems were in the respiratory system, cardiovascular system, wound edema, wound and healing in all parts were observed (Additional Table 3).

Table4.7. Quality of Life mean score in Control and Intervention Group Patients

Score On Quality Of Life Scale	Before Surgery (Baseline score)	Six Weeks after their Discharge (Follow-up score)	Statitical Evaluation (p)
	x□± SD	x□± SD	
Physical Functioning			
Control	44.70± 28.86	46.30± 21.91	0.735
Intervention	42.5± 32.73	93.5± 6.24	0.00
Statistical Evaluation (p)	0.666	0.00	
Physical Role			
Control	24.0± 37.44	27.5± 43. 81	0.614
Intervention	19.0±36.96	99.98± 0.14	0.00
Statistical Evaluation(p)	0.511	0.00	
Bodily Pain			
Control	40.44± 34.68	38.66± 30.38	0.768
Intervention	40.22± 38.41	91.11± 14.89	0.00
Statistical Evaluation(p)	0.976	0.00	
General Health Perception			
Control	53.20± 26.62	59.40± 24.98	0.090
Intervention	65.0± 23.71	94.40± 9.23	0.00
Statistical Evaluation(p)	0.015	0.00	
Vitality			
Control	55.10± 27.11	54.70± 27.61	0.923
Intervention	57.20± 29.93	86.10± 17.82	0.00
Statistical Evaluation(p)	0.724	0.00	
Social Function			
Control	54.0± 27.59	56.75± 28.70	0.459
Intervention	53.50± 38.63	95.50± 6.56	0.00
Statistical Evaluation(p)	0.936	0.00	
Emotional Role			
Control	34.66±44.65	29.33± 43.45	0.522
Intervention	29.33± 43.45	98.66±6.59	0.00
Statistical Evaluation(p)	0.533	0.00	
Mental Health			
Control	62.24± 25.40	61.44± 24.33	0.813
Intervention	58.96± 29.75	87.76±13.50	0.00
Statistical Evaluation(p)	0.574	0.00	

*The significance level of $p < 0.05$ was accepted.

According to table 7, follow-ups have significant effects on life quality before surgery in the hospital and six weeks after discharge., In the general health perception parameter baseline score between control and intervention group, and all

parameters between baseline score and follow-up score in intervention group patients, a significant difference has been observed ($p<0.05$). In all parameters between control and intervention groups six weeks after discharge, a significant difference has been defined ($p<0.05$).

There was not a statistically significant difference mean scores of Quality of Life score both in control and intervention groups regarding gender, job, economic status, life status, smoking and habitat ($p>0.05$). But regarding sex and education level at baseline in the intervention group and marriage status in the intervention group at follow up and chronic illness in baseline control and intervention groups, a significant difference between mean scores of life quality was found ($p<0.05$) (Additional Table 4).

5. DISCUSSION

In this section, CABG patients in control and intervention groups, personal information, surgery process, patients' care givers in both groups after discharge, problems experienced during the follow-ups until six weeks after discharge, the interventions implemented to address these issues, receiving education and counseling services and findings related to quality of life scores were discussed.

5.1. Discussion about Patients Who Have Undergone CABG, Personal Information, Health Status and Habits, Hospital and Operation Experiences, Information about Patients' Care Givers in Control and Intervention Group after Discharge

The success of cardiac surgery is measured by low mortality rate, relief of symptoms and improvement in the quality of life. Although most patients experience problems after surgery, they become more active and independent. The experienced problems can be reduced through helping the patient and his/her family to understand the recovery process better. This understanding can be enhanced through focusing on some of the predictable problems that the patient may encounter during the home recovery period. Research findings indicated that the rate of recovery is related to the patient's lack of information about the processes before and after surgery, therefore patient education may contribute to facilitation of home recovery, success of treatment and reduction of costs (81,109-111).

Considering the patients in the intervention and control groups, CAD risk factors were found to be similar (Tables 4.1, 2, 3, 4). Only regarding the chronic illness in patients' health status background in control and intervention groups, was a significant difference observed ($p<0.05$), (Table 4.2). According to the findings, the majority of patients were urban residents, male and overweight in intervention and control groups (Table 4.1). CAD risk factors such as obesity, stress, urban life, sedentary lifestyle, and gender also have been found to be an important factor affecting recovery symptoms of CABG patients. The majority of CAD risk factors such as stress and obesity need to be counseled in lifestyle modification (111-114).

Considering other demographics, it was revealed that most participants in both groups were married (Table 4.1). Being married, especially being in a highly satisfying marriage, offered a significant benefit to long-term survival after CABG. Why marital status and marital satisfaction have this effect on survival is surely multifactorial, most likely a combination of spousal support and survivor motivation to adopt a healthy lifestyle, along with the provision of emotional support to the survivor, which all could have the effect of modulating the physiological mechanisms responsible for slowing the advancement of CVD (115). Mehri and Cebeci and celik (28), in their research found the same result. In addition, nearly all participants in both groups were living with their families, but there was a higher percentage in the intervention group (Table 4.1). It was also found that married patients who live with their spouse and children had higher self-care ability scores ($p<0.05$), (20,115). Living with their families caused the families of patients who have undergone coronary artery bypass surgery to understand the demands better and this understanding can have a positive effect on the healing process (13, 53).

Comparing the two groups based on education level, it was observed that the highest levels of received education were primary school and literacy in the intervention group and literacy in the control group (Table 4.1). Cebeci and celik 2004 (28), in their research reported that most of the participants in both groups had primary school education. The findings of the present study are similar and agree with the findings of the above mentioned study. It should be taken into consideration that participants in both the control and intervention group were employed (Table 4.1). Many researchers have shown an increase in "coronary heart disease" resulting from job stress. Work characteristics were simultaneously adjusted and controlled for employment grade level, negative affectivity, and coronary risk factors (116-118).

Comparing the average body mass index (BMI), it was revealed that all participants were overweight, with a higher rate in the intervention group, but there was no significant difference between the two groups ($p>0.05$), (Table 4.1). In many studies, it was found that the more patients undergoing CABG surgery were overweight, the more problems were observed (12,119-121). Perrotta and other (122), and Wagner (123), and Bagheri (124), in their studies results suggested that BMI is an independent predictor of post-CABG complications and longer

hospitalization but not with an increased, early or long-term mortality (122-124). The heart is a vital organ and its performance is mostly affected and disturbed by the weight gain (125).

The control group had a higher age average compared to the intervention group, but there was no significant difference between the two groups ($p>0.05$), (Table 4.1). Many studies have reported relationships between age and various recovery measures following CABG surgery. Being a younger age was inversely associated with patients' levels of depression (28,126). Horneffer and et al (128), in their research entitled "The effects of age on outcome after coronary bypass surgery" found that patients suffered more complications, including stroke, wound infection, reoperation for bleeding, need for inotropic drug support, and prolonged ventilation, and had longer mean postoperative hospital stays. After discharge, there were incidents of symptoms recurrence and degree of rehabilitation. In addition, late follow-up failed to demonstrate any significant differences based on age alone in survival or functional status among patients undergoing CABG.

Patients in control and intervention groups before surgery were found to be similar in terms of health status and habits ($p>0.05$) (Table 4.2). Direk and Celik (20), in their studies found similar results about smoking and drinking alcohol status. Smoking is associated with significant pulmonary complications after CABG (129). Domburg and et al (130), Saxena and et al (131), found that patients who continued to smoke after CABG had a greater risk of death than patients who stopped smoking. They also underwent repeated revascularization procedures more frequently. Cessation of smoking is therefore strongly recommended after CABG. Al-Sarraf, and et al (132), also found that smoking cessation before CABG reduced the risk of serious pulmonary complications. The present findings indicate that embarking on a smoking cessation program should not be deferred until after surgery.Comparing the patients based on their health status revealed only that most cases of chronic diseases were among patients in the intervention group rather than control group as a significant difference was observed ($p<0.05$), (Table 4.2). Statistical analyses showed that this factor at six weeks after their discharge had no effect on the quality of life score of patients of both groups ($p>0.05$). Patients who had chronic illness such as diabetes mellitus, chronic pulmonary disease, heart dysfunction and those with

chronic kidney disease (CKD), were more likely to have complications. It is due to the fact that cardiovascular diseases are associated with poor perceived heart related quality of life after CABG. Not only physical but also psychosocial factors have an influence on these patients' perceived heart related quality of life. Emotional distress has a statistically significant negative association with quality of life (47,133-136). It is worthy of mention that factors which play a role in the development of CVD in patients indicate that they carry risks (20). Despite the fact that the intervention group participants had more incidences of CAD in family, CABG surgery in family, previously had surgery and the duration after surgery was under 10 years, no significant difference was observed ($p>0.05$), (Table 2). In Cebeci and Celik (12), Aydin (137) and Naylor, et al (90) studies, CAD risk factors were found to be similar ($p>0.05$). In our study, patients in control and intervention groups before surgery were found to be similar in terms of mean operation time, length of hospital stay, cross clamp time, used number of saphenous veins, average length of stay in ICU and hospital readmission ($p>0.05$), (Table 4.3). Findings of studies were found to be similar to those of the present study. Patients with any of the numerous risk factors for readmission should be closely monitored (138).

There was no significant difference ($p>0.05$) between the two groups regarding the people who took care of the patients at home after discharge (Table 4.4). In patients after CABG surgery, for better rehabilitation most do promote the participation of family members in the process of rehabilitation (81, 133,139). Degree of education can increase awareness of patient care after surgery, and in this research cases had similar education levels (Table 4.1).

5.2. Discussion about the Experienced Problems of Control and Intervention Group Patients after Discharge

After CABG surgery, patients experience many problems such as pain around the leg and chest incisions, weight loss, respiratory distress, sleep disturbances, fatigue, weakness, loss of appetite, constipation, difficulty taking a bath, limited body movements, unhappiness, and an inability to cope with stressors. They also experience role confusion in the family as well as problems concerning their

lifestyle, level of engagement with social activities, relationships with their spouses and other family members and friends, and their sex life (12, 15, 20, 137, 140-142).

In this study, all patients experienced at least one problem after discharge. Control group patients reported more problems after discharge than intervention group patients. According to findings of the present study, the most frequently reported problem in the intervention group was chest pain (68%), (Table 4.5), and at first follow-up more than 10% of reported problems were: chest, back and shoulder pain, difficulty in falling asleep, introversion, weakness, fatigue, respiratory difficulty, wound edema and wound pain in leg, constipation, loss of appetite, and respiratory difficulties. All of these problems were resolved until second follow-up, except for two cases of respiratory difficulties and one case of wound edema in leg and constipation, which remained until third follow-up (Table 4.6). The findings of the current study are in complete agreement with the study done by Direk and Celik (20), and Tuna and Celik (119), on elderly patients who had undergone open heart surgery. Some problems that patients experienced during the post-surgery period and the way patients managed this period were: weakness and fatigue, anemia, change in appetite, sleep disturbance, change in amount and odor of perspiration, incision discomfort or pain, incision drainage, neck and shoulder or back discomfort, and muscle aches (119,126,143)**.** Breathing complications after CABG surgery increase hospital stay and are associated with high healthcare costs (144). Having poor sleep quality is common among patients following cardiopulmonary artery bypass graft surgery. Pain, stress, anxiety and poor sleep quality may be improved by massage therapy. Massage therapy is an effective technique for improving patients' recovery from cardiopulmonary artery bypass graft surgery because it reduces fatigue and improves sleep (145,146). Nuboko and et al (147), did patient participation in exercise capacity by reducing post-coronary artery bypass grafting pain, relieving anxiety and tension, and improving ADL. Hassani and et al (148), in their research investigating 518 patients after surgery for three years found that more than 56% of patients were suffering neurological problems after coronary artery bypass surgery. The researcher for intervention group patients gave all the required education according to the booklet developed by the researcher. In addition, the researcher tried to solve patients’ problems by creating a 24-hour possibility of connection to patients

emphasizing education given in the booklet with the aim of solving problems by timely advice and follow-up. The observed differences between problems experienced by control and intervention groups could be due to the education and counseling given to the patients in intervention before surgery and at follow-ups after discharge. However, in control group patients more observed problems were unsolved until third follow-up. According to counseling for patients in the intervention group who have back or shoulder pain at follow-ups, doing shoulder and arm massage and exercises on back and left shoulder and for sleep problems are recommended in the booklet (Additional Table 3).

According to the findings of the study, it was shown that the patients who have undergone heart surgery, have psychological problems which could have a negative effect on them. Despite the difference between pre and postoperative scores in the experimental group these were not significant. Education, especially face to face educational programs and giving information, was a very effective method in reducing their psychological problems. This teaching method encourages better interaction with patients and its simplicity is useful for nurses (1, 73, 149-155). In this study, discharge education programs with an interdisciplinary perspective, between patient, family and researcher, with consultancy services in conjunction with home care and follow-up, should be implemented with an improvement in quality to reduce and eliminate the problems patients face. Reasons of poor education given by hospital nurses, no follow-up in the control group, and problems observed in the control group were greater than in the intervention group, such that statistically significant differences were found.

When the results of follow-ups in control and intervention groups were observed, it was reported that the control group had more problems after discharge than the intervention group in all three follow-ups. The reported problems for both groups had a descending pattern during the three follow-ups. However this pattern had a greater slope in the intervention group (Table 4.6), (Additional Table 3). As a result of this education and counseling service, patients' problems were fewer in the intervention group than the control group.

Elitoğ and Erkuş (62), in their research, found that until 1 to 4 weeks after surgery in the intervention group patients' range of observed problems reduced to

50%, and the most telephone calls for counseling were 20% for drug use, 12.6% for pain control, and 11.3% asking about removal of sutures.

Cardiovascular surgery education has been demonstrated to improve patients' post-discharge outcomes. Self-management skills are rarely innate and patients and their families require education to acquire the knowledge and skill to manage their post-CV surgery home care (156). In particular, there is an amount of evidence that a nurse- led educational program is closely associated with a high reduction rate of complications and anxiety following cardiac events and readmissions to hospital. Moreover, the intervention of therapeutic lifestyle-change in a nursing program modified cardiac risk factors effectively and may improve prognosis. The benefits of nursing support for cardiac rehabilitation patients can improve health outcomes and reduce the risk of a new cardiac event. It is of most importance for nurses to meet the rehabilitative care needs of patients through education, support, supervision and reinforcement (86,157- 160).

5.3. Assessment of Quality of Life Mean Score of Control and Intervention Group Patients

Numerous studies agree that patients need assistance to accomplish self-care and quality of life and that proper training and counseling can play a key role in helping them succeed. Providing training, counseling and support services to patients who have undergone CABG surgery and with the help of their close relatives, individuals develop self-care behavior, increase quality of life, and ensure continuity of care at home while away from the hospital environment. Thus, potential problems and rehospitalizations can be significantly averted (12, 20, 157, 161).

In table 4.7 results of Quality of Life (QoL) mean scores are presented between patients in the control and intervention group before surgery and six weeks after operation. However, in all subcategories like physical functioning, physical role, bodily pain, general health perception, vitality, social function role, emotional role, mental health before surgery, no significant difference between groups was observed ($p>0.05$), except in terms of the general health perception where a significant difference between life quality scores of patients in the two groups before surgery was observed ($p<0.05$). In all subcategories of the QoL scores in patients of

both groups six weeks after surgery, no significant difference was observed (p>0.05). In all subcategories of QoL, the obtained average of life quality scores in the control group before and six weeks after surgery were not significantly different (p>0.05), but in the intervention group obtained life quality scores in all cases before and six weeks after surgery were significantly different (p<0.05), (Table 4.7). In a study of Kurcer and Ozby (162), effect of patient education and counseling on QoL, similar results were found to those of the current study. However, a study of Gois and et al (163), found that the differences were only statistically significant for general health and bodily pain. Other research found that QoL scores for physical functioning, role limitation due to physical health, and pain decreased from pre-CABG surgery compared to 2 weeks post-CABG surgery and returned to baseline values at 2 months post-CABG surgery (164). Dantas and et al, (165), Motzer and Stewart, (166), Improvement in vitality, general health, and mental health by introducing interventions and focusing on those factors may improve QoL for those individuals. In terms of clinical practice, this would be translated into focusing on the patient's psychological conditions after surgery. In the present study due to the training and counseling given to the patients in the intervention group, the life quality scores regarding all categories were higher than those in the control group and a statistically significant difference between the two groups regarding QoL score and prevention of problems after surgery was observed (p<0.05).

In additional table 4, there was not a statistically significant difference mean scores of Quality of Life score both in control and intervention groups regarding gender, job, economic status, life status, smoking and habitat. But regarding sex and education level at baseline in the intervention group and marriage status in the intervention group at follow up and chronic illness in baseline control and intervention groups, a significant difference between mean scores of life quality was observed. The presence of co-morbid illness affects QoL in those with CAD. As highlighted by Dantas and et al., (165), Motzer & Stewart, (166), there can be a fourfold increase in functional limitation in those with chronic conditions and it seems important that healthcare professionals recognize the negative effect of chronic illness on QoL. Kendel and et al (167) and Gray (136), reported that women who have undergone coronary bypass surgery, without any training, generally report

a poorer Health Related Quality of Life than men. The care provider should frequently assess the individual’s moods for depression and help to boost his or her self-esteem (133). Gois and et al (163), in their studies found no association between health-related Quality of Life, schooling and marital status. In conclusion, the CABG improved participants' health-related Quality of Life.

According to the research findings, the male participants had higher QoL than the females. Age, educational status, marital status, place of residence, and additional chronic illness were found to affect QoL. By taking the findings of the research into consideration, nurses should look after patients with CAD within the frame of a cardiac rehabilitation program considering the individual factors affecting QoL (sex, age, education, marital status, place of residence, additional chronic illnesses, etc.) and should organize educational programs (49). In our study, six weeks after patients’ discharge in both groups, patients’ Quality of Life mean score was higher among females than males (Additional Table 4). In a study by of Peric and et al (168), investigating the effect of patients' personal characteristics on life quality, no significant difference was observed regarding age, job status, economic status, lifestyle, being a smoker/nonsmoker, and living place. In both groups considering gender, QoL score before surgery, the higher score was in males but six weeks after surgery the higher score belonged to females. Bak and Marcisz (169), reported that QoL following CABG, in the energy, sleep, and physical mobility domains improved in different ways according to gender and were more favorable in men than in women. The Babaee and et al (170), Ahmadzadeh (171) and Ebadi and et al (172), showed the positive effect of health education on knowledge and attitude, reducing anxiety in bypass surgery patients. According to these studies, it was demonstrated that health education results in improved quality of life for patients with CABG in all cases using the SF-36 Quality of Life score, as significant differences were shown before and after the education program ($p<0.05$). Home care and post-discharge educational and consultancy services provided to the patients after CABG surgery could play an important role in reducing the problems experienced after discharge. The educational intervention should be individualized, addressing patients’ learning needs and be more intensive and comprehensive. Nurses may consider incorporating individualized patient education into their plan of care (1, 2, 20).

The greatest number (>50%) of interventions for solving problems in control patients used medication in accordance with physicians' recommendations, calling for a doctor and giving necessary recommendations, doing massage on back and left shoulder, giving advice on nutrition and social life, giving a psychological consultation to make interventions have better effects. The programs mostly applied to patients in the intervention group involved giving information and if problems arose, counseling with their physician and observing what was recommended in the instructional booklet, including: nutritional regulation according to the education booklet, having enough rest and sleep (drinking fluid and listening to light music, having a dark room, a comfortable bed, a few walks before sleep, elevated feet at bedtime, taking a warm shower, reading books, watching TV, according to the booklet), not doing Valsalva's maneuver and preventing constipation. The activities which contributed to solving these problems were encouraging patients to express their feelings and doing exactly what the instructional booklet said, enhancing the quality of life of patients (Appendix VII), (Additional Table 2[ab]).

Finally, the impact of training and counseling before and after surgery in patients who have undergone coronary artery bypass surgery is proved. However, groups were found to be similar in terms of characteristics such as health status, habits, surgery-related characteristics, and information about their care giver, except in the case of chronic diseases. Regarding postoperative problems and using interventions for solving problems by patients and family, giving information to patients during follow-up, in house and implemented initiatives experienced, statistically significant differences between Quality of Life mean scores and Quality of Life mean score dependent on patients' characteristics were observed. Because there were fewer problems and higher QoL after surgery than before it due to the training and follow-ups, therefore the first and second hypotheses stating that discharge training and counseling increase intervention group patients' life quality after discharge and also reduce problems experienced by them are accepted.

6. RESULTS AND RECOMMENDATION

6.1. Results

The aim of the present study was to investigate the effects of discharge training and counseling for patients who have undergone CABG surgery, with the use of a training booklet that included programs for solving patients' physical, psychological and social needs to remove the problems experienced after their surgeries and to increase QoL score after discharge. The following results were obtained.

6.1.1 Within the scope of the research, characteristics of patients in the control and intervention group were found to be similar, and no statistically differences were observed between patients of the two groups ($p>0.05$), (Table 4.1).

6.1.2 Habits and health status of control and intervention group patients before surgery were found to be similar. No statistically significant differences between patients of the two groups were observed ($p>0.05$) but statistically significant differences were observed in terms of having chronic illness in both groups ($p<0.05$). The results show that having chronic illness is seen more in the intervention group (Table 4.2).

6.1.3 No statistically significant differences were observed between the patients of control and intervention groups in terms of operation time, length of stay in ICU, length of stay in hospital, cross clamp time, number of saphenous veins used, hospital and operation experiences ($p>0.05$), (Table 4.3).

6.1.4 Patients' care givers of control and intervention group patients after discharge did not differ statistically significantly about their information ($p>0.05$), (Table 4.4).

6.1.5 Investigating the problems experienced by patients of control and intervention groups after discharge showed that the most common problems reported by patients of both groups were chest pain, (>50%) difficulty in falling asleep, insomnia, shoulder pain (72%), back pain (68%), fatigue (66%), loss of appetite (58%), introversion (56%), weakness, respiratory problems (54%), wound edema in leg (52%). The least reported problems by patients in the control group were wound drainage in leg and chest (2%), and in the intervention group were vomiting, wound

and healing, wound redness and wound pain in leg and chest (1%), (Table 4.5[ab], Additional Table 1[a)]. As a result of training and counseling and giving information to patients during follow-up, in house consultation, implemented initiatives in the intervention group (Additional Table 2[b]), applied respectively from the first to the third consultative advice, the number of patients whose problems were solved was sequentially (7,12,28), and in the control group was (4,0,4), (Table 4.6[ab], Additional Table 3).

6.1.6 Quality of Life mean scores of patients in control and intervention groups showed that all categories of the SF-36 scale before surgery in baseline score respectively, were physical functioning (44.70, 42.5), physical role (24.0, 19.0), bodily pain (40.44, 40.22), general health perception (53.20, 65.0), vitality (55.10, 57.20), social function (54.0, 53.50), emotional role (34.66, 29.33), and mental health (62.24, 58.96). All the scores in all 8 scales between patients in control and intervention groups were similar and no significant difference was observed ($p>0.05$). But at six weeks after their discharge, inclusive follow-up scores between the patients in control and intervention groups respectively were, physical functioning (46.30, 93.5), physical role (27.5, 99.98), bodily pain (38.66, 91.11), general health perception (59.40, 94.40), vitality (54.70, 86.10), social function (56.75, 95.50), emotional role (29.33, 98.66), and mental health (61.44, 87.76). As the results showed, statistically significant differences between control and intervention groups were observed ($p<0.05$) (Table 4.7).

6.2 Recommendations

In this study, training and counseling services were performed, taking patients' characteristics and needs into consideration. The effects of this training and counseling on reduction of patients' problems and increase in their Quality of Life were measured. The following suggestions and recommendations are stated based on the findings:

6.2.1 The positive results of the resent study can be used in patients' care practically.

6.2.2 Training and follow-ups should be continued after discharge.

6.2.3 An easy opportunity to contact counselors should be provided for patients through a specific phone line.

6.2.4 Prospective and intervention studies are needed to support findings.

6.2.5 The findings can be used to develop interventions to improve health and QoL in specific domains with respect to specific groups.

6.2.6 Follow-up centers in cardiovascular surgery hospitals should be established.

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APPENDIX

APPENDIX (I): PERSONAL INFORMATION FORM

Name and surname: Date of admitting in hospital:

Phone number: Address:

1. Age: 2.Height: 3. Weight:

(Circle One Number on Each Line)

4. What's your Gender?

a) Male b) Female

5. What is your marital status ?

a) Married
b) Single
c) Divorced

6. What's your educational status?

a) Literacy b) Illiterate c) Primary d) Elementary

e) High school

f) University g) other (Please explain)…

7. What is your job status?

a) Free business b) Retired c) Unemployed d) Housewife

e) Others (Please explain)…

8. How is your economic status?

a) Income lower than expenses b) Income higher than expenses

c) Balance between income and expenses

9. Who you are living with / who are they?

a) Alone b) Spouse c) Spouse and my child/ my children

d) My child/ my children e) Others (Please explain):…

10. Is there a person who has got coronary heart disease in your family?

a) Yes (Explain):…

b) No:

11. Is there a person who had undergone coronary artery bypass graft surgery in your family?

a) Yes (Explain):…

b) No:

12. Are you suffering from chronic (Long term) disease?

a) Yes (Explain):…

b) No (Please explain 14th question)

13. How long are you suffering from chronic disease?

a) Year: b) Month: c) Day:

14. Have you undergone operation before?

a) Yes (Type and date of operation)…

b) No:

15. Do you use cigarette?

a) Yes Day.............. Number…

b) No:

16. Do you use alcohol?

a) Yes Frequency / quantity: …

b) No:

17. Euro SCORE (European System for Cardiac Operative Risk Evaluation):

18. Type of operation:

19. Number of replaced vessels:

20. Cross clamp time:

21. Duration of surgery:

22. Status of development complication during patient` surgery.

a) Not Develop: Developed (Please define):…

b)

23. Duration of stay of intensive care unit/day…

فرم شناسایی اطلاعات بیمار

نام و نام خانوادگی: تاریخ بستری در بیمارستان:
شماره تلفن: آدرس منزل:

الف) اطلاعات مربوط به ویژگی های فردی و اجتماعی

***از بیمار سوال خواهد شد.**

1.سن: **2. قد:** **3. وزن:**

4. جنس: مرد: زن: **5. وضعیت تاهل:** متاهل:
مجرد: مطلقه:

6. وضعیت تحصیل خود را مشخص کنید؟

باسواد: بی سواد: ابتدایی: راهنمایی:
دبیرستان,دانشگاه: غیره(روشن کنید):

7. وضعیت شغل خود را مشخص کنید؟

شغل آزاد: بازنشسته: بی کار: خانه دار:
غیره(روشن کنید):

8. وضعیت اقتصادی شما چطور است؟ درآمد کمتر از خارج:
درآمد بیشتر از خارج:

تعادل بین درآمد و خارج:

9. با چه کسانی باهم زندگی می کنید؟ تنها: همسر:
همسر وبچه ها: بچه ها:

غیره(روشن کنید):

10. در خانواده تان بیماریهای قلبی و عروقی وجود دارد؟ خیر:
بله(شرح دهید): .....

11. در خانواده شما کسی که عمل جراحی بای پس عروق کرونر قلب انجام داده وجود دارد؟ خیر:

بله(شرح دهید): .....

ب):اطلاعاتی در مورد عواملی که سطح عملکرد مستقل بیمار را تحت تاثیر قرار می دهند:

***از بیمار سوال خواهد شد.**

1. مبتلا به بیماری مزمن (طولانی مدت) هستید یا نه؟ نخیر(به سوال 3 جواب دهید): بله(شرح دهید):
2. طول مدت ابتلا به بیماری مزمن شما چقدر است؟ سال: ماه: روز:
3. برای درمان دارو مصرف می کنید؟ خیر(به سوال 6 جواب دهید): بله(شرح دهید):
4. هر روز چند تا دارو مصرف می کنید؟
5. هر روز چند داروی مختلف مصرف می کنید؟
6. آیا قبلا تحت عمل جراحی قرار گرفته اید؟ نخیر: بله(نوع و تاریخ عمل جراحی):
7. آیا سیگار مصرف می کنید؟ نخیر: بله: چند تا در روز:
8. آیا الکل مصرف می کنید؟بله: چند دفعه: جه مقدار:
9. آیا بطور منظم ورزش می کنید؟نخیر: بله(شرح دهید):
10. آیا رژیم خاصی را استفاده می کنید؟ نخیر: بله(شرح دهید):
11. آیا حد اقل سه وعده در روز غذا مصرف می کنید؟ بله: نخیر:
12. بطور متوسط در طول روز مقدار مصرف مایعات شما چقدر است؟............. لیتر
13. آیا پروتز خارجی دارید؟ نخیر: بله(شرح دهید):
14. روزانه بطور متوسط چند ساعت را در رختخواب می گذرانید؟................ ساعت
15. شبها بطور متوسط چند ساعت را در رختخواب می گذرانید؟................ ساعت
16. آیا ساعات مداومی را در اتاقتان می گذرانید؟بله: خیر:
17. آیا در اتاقی که بطور مداوم در آن به سرمیبرید تقویم وجود دارد؟ بله: خیر:
18. فعالیت های اجتماعی (کتاب ها، روزنامه ها، خواندن، حل معما، برای دیدار با دوستان، رفتن به فیلم، و غیره) انجام میدهید؟ نخیر: بله(شرح دهید):
19. آیا سابقه افتادن داشته اید؟بله: نخیر(پرسشنامه را تمام کنید):
20. آیا افتادن منجر به شکستگی شد یا نه؟ بله(شرح دهید): نخیر:

21. آیا بخاطر ترس از افتادن دوباره از گردش در داخل و خارج خانه نگران هستید؟ بله: خیر:

فرم جمع آوری اطلاعات در مورد روند عمل جراحی

الف) اطلاعات مربوط به عمل جراحی پیوند عروق کرونر *از پرونده بیمار بدست خواهد آمد

تاریخ عمل جراحی:

2. نوع عمل: 3. تعداد رگهای عوض شده: 4. زمان گیره صلیبی: 5.مدت زمان عمل جراحی:

6. وضعیت عوارض ایجادی حین عمل: ایجاد شد(مشخص شد): ایجاد نشد:

ب) اطلاعات در مورد فرایند مراقبت های ویژه

*از پرونده بیمار بدست خواهد آمد

1. مدت زمان ماندن در بخش ویژه:................
2. مدت زمان ماندن در رسپیراتور:..................
3. در زمان بستری بودن در بخش ویژه محدودیتهای فیزیکی و پزشکی داده شد؟ نخیر:
4. بله(شرح دهید): ...
5. وضعیت ایجاد عوارض بعد از عمل در بخش ویژه: ایجاد نشد: ایجاد شد(مشخص کنید):

ج) اطلاعات در مورد فرایند مراقبت بعد از عمل جراحی در بخش بستری: * از بیمار سوال خواهد شد.

1. بعد از عمل جراحی در بخش بستری در ارتباط با عمل جراحی وضعیتی ناخواسته ایجاد شد یا نه؟

ایجاد نشد: ایجاد شد(مشخص کنید):

2.در طول روز به غیر از رفتن به توالت چند با از رختخواب بلند شدید؟.............. دفعه

3.در بخش بستری در طول روز چند دفعه پیاده روی انجام دادید؟................ دفعه

4. در بخش یستری در طول روز چند بارورزش نفس عمیق و سرفه انجام دادید؟.............. دفعه

5.در بخش بستری تمام غذایی که به شما داده می شد را می خوردید؟ بله: خیر:

6.در بخش بستری شبها بطور متوسط چند ساعت می خوابیدید؟................ ساعت

7. در بخش بستری روزها ا بطور متوسط چند ساعت می خوابیدید؟................... ساعت

8.در بخش بستری اصلا افتاده بودید؟خیر: بله:

9.در نتیجه افتادن دچار شکستگی شدید یا نه؟ نخیر: بله(شرح دهید):

APPENDIX (II): THE HOME FOLLOW-UP FORM AFTER DISCHARGE (CONTROL GROUP)

Patient name and surname: Date of discharge:

(Circle One Number on Each Line)

1. Who will live with you during six weeks after discharge?

a) Alone b) My wife c) My wife and my child/my children

d) My children e) other (Please explain).......

2. What is the educational level of the person helping your care after discharge?

a) Literacy e) High school

b) Illiterate f) University

c) Primary g) There is nobody to help

d) Elementary h) Other (Please explain)..............

3. What is the most widely informatio n resource that you used after your discharge (you can sircle more than one answer)

a) Nothing

b) Training Booklet

c) Video

d) Information given by nurse

e) Information given by doctor

f) Information given by dietitian

g) Other (Please explain)..............

INFORMATION ABOUT PROBLEMS FACING CONTROL GROUP PATIENTS

Problems	**Problems Occurrence Status**			Problem-Solving Interventions of Patients and Patients' Relatives (Explain)	Solution Status of Problems	
	Follow-up	Yes	No		Yes	No
Respiratory difficulty	1st follow-up					
	2nd follow-up					
	3rd follow-up					
Fatigue	1st follow-up					
	2nd follow-up					
	3rd follow-up					
Chest pain	1st follow-up					
	2nd follow-up					
	3rd follow-up					
Palpitation	1st follow-up					
	2nd follow-up					
	3rd follow-up					
Edema of the legs	1st follow-up					
	2nd follow-up					
	3rd follow-up					
Leg Pain	1st follow-up					
	2nd follow-up					
	3rd follow-up					
Do not use surgical stocking	1st follow-up					
	2nd follow-up					
	3rd follow-up					
Loss of apetite	1st follow-up					
	2nd follow-up					
	3rd follow-up					
Nausea	1st follow-up					
	2nd follow-up					
	3rd follow-up					
Vomiting	1st follow-up					
	2nd follow-up					
	3rd follow-up					
Constipation	1st follow-up					
	2nd follow-up					
	3rd follow-up					
Diarrhea	1st follow-up					
	2nd follow-up					
	3rd follow-up					
Drainage from the surgical wound (Please explain leg and chest or other surgical	1st follow-up					

wound)						
	2nd follow-up					
	3rd follow-up					
Redness at the surgical wound (Please explain leg and chest or other surgical wound)	1st follow-up					
	2nd follow-up					
	3rd follow-up					
Swelling at the surgical wound (Please explain leg and chest or other surgical wound)	1st follow-up					
	2nd follow-up					
	3rd follow-up					
Pain at the surgical wound (Please explain leg and chest or other surgical wound)	1st follow-up					
	2nd follow-up					
	3rd follow-up					
Introversion	1st follow-up					
	2nd follow-up					
	3rd follow-up					
Unwillingness to social contacts	1st follow-up					
	2nd follow-up					
	3rd follow-up					
Fear	1st follow-up					
	2nd follow-up					
	3rd follow-up					
Attention deficit problem	1st follow-up					
	2nd follow-up					
	3rd follow-up					
Pessimism	1st follow-up					
	2nd follow-up					
	3rd follow-up					
A refusal to see visitors	1st follow-up					
	2nd follow-up					
	3rd follow-up					
Difficulty in falling asleep	1st follow-up					
	2nd follow-up					
	3rd follow-up					
Insomnia	1st follow-up					
	2nd follow-up					
	3rd follow-up					

Dizziness	1st follow-up					
	2nd follow-up					
	3rd follow-up					
Fever	1st follow-up					
	2nd follow-up					
	3rd follow-up					
Back pain	1st follow-up					
	2nd follow-up					
	3rd follow-up					
Shoulder pain	1st follow-up					
	2nd follow-up					
	3rd follow-up					
Not sleep in Supine position	1st follow-up					
	2nd follow-up					
	3rd follow-up					
Weakness	1st follow-up					
	2nd follow-up					
	3rd follow-up					
Weight Gain	1st follow-up					
	2nd follow-up					
	3rd follow-up					
Other problem (Please explain)	1st follow-up					
	2nd follow-up					
	3rd follow-up					
Other problem (Please explain)	1st follow-up					
	2nd follow-up					
	3rd follow-up					
Other problem (Please explain)	1st follow-up					
	2nd follow-up					

APPENDIX (II): THE HOME FOLLOW-UP FORM AFTER DISCHARGE (INTERVENTION GROUP)

Patient name and surname: Date of discharge:

1. Who will live with you during six weeks after discharge?

a) Alone b) My wife c) My wife and my child/my children

d) My children e) other (Please explain)....

2. What is the educational level of the person helping your care after discharge?

a) Literacy e) High school

b) Illiterate f) University

c) Primary g) There is nobody to help

d) Elementary h) Other (Please explain)......

3. What is the most widely information resource that you used after your discharge (you can sircle more than one answer)

e) Nothing

f) Training Booklet

g) Video

h) Information given by nurse

i) Information given by doctor

j) Information given by dietitian

k) Other (Please explain)..............

INFORMATION ABOUT PROBLEMS FACING INTERVENTION GROUP PATIENTS

Problems	**Problems Occurrence Status**			Problem-Solving Interventions of Patients and Ppatient's' Relatives (Explain)	ling Services Give Consent by Researcher about Problems	Solution Status of Problems	
	Follow-up	Yes	No			Yes	No
Respiratory difficulty	1st follow-up						
	2nd follow-up						
	3rd follow-up						
Fatigue	1st follow-up						
	2nd follow-up						
	3rd follow-up						
Chest pain	1st follow-up						
	2nd follow-up						
	3rd follow-up						
Palpitation	1st follow-up						
	2nd follow-up						
	3rd follow-up						
Edema of the legs	1st follow-up						
	2nd follow-up						
	3rd follow-up						
Leg Pain	1st follow-up						
	2nd follow-up						
	3rd follow-up						
Do not use surgical stocking	1st follow-up						
	2nd follow-up						
	3rd follow-up						
Loss of apetite	1st follow-up						
	2nd follow-up						
	3rd follow-up						
Nausea	1st follow-up						
	2nd follow-up						
	3rd follow-up						
Vomiting	1st follow-up						
	2nd follow-up						
	3rd follow-up						
Constipation	1st follow-up						
	2nd follow-up						
	3rd follow-up						
Diarrhea	1st follow-up						
	2nd follow-up						
	3rd follow-up						
Drainage at from the surgical wound (Please explain leg and	1st follow-up						

chest or other surgical wound)							
	2nd follow-up						
	3rd follow-up						
Redness at the surgical wound (Please explain leg and chest or other surgical wound)	1st follow-up						
	2nd follow-up						
	3rd follow-up						
Swelling at the surgical wound (Please explain leg and chest or other surgical wound)	1st follow-up						
	2nd follow-up						
	3rd follow-up						
Pain at the surgical wound (Please explain leg and chest or other surgical wound)	1st follow-up						
	2nd follow-up						
	3rd follow-up						
Introversion	1st follow-up						
	2nd follow-up						
	3rd follow-up						
Unwillingness to social contacts	1st follow-up						
	2nd follow-up						
	3rd follow-up						
Fear	1st follow-up						
	2nd follow-up						
	3rd follow-up						
Attention deficit problem	1st follow-up						
	2nd follow-up						
	3rd follow-up						
Pessimism	1st follow-up						
	2nd follow-up						
	3rd follow-up						
A refusal to see visitors	1st follow-up						
	2nd follow-up						
	3rd follow-up						
Difficulty in falling asleep	1st follow-up						
	2nd follow-up						
	3rd follow-up						
Insomnia	1st follow-up						

	2nd follow-up						
	3rd follow-up						
Dizziness	1st follow-up						
	2nd follow-up						
	3rd follow-up						
Fever	1st follow-up						
	2nd follow-up						
	3rd follow-up						
Back pain	1st follow-up						
	2nd follow-up						
	3rd follow-up						
Shoulder pain	1st follow-up						
	2nd follow-up						
	3rd follow-up						
Not sleep in Supine position	1st follow-up						
	2nd follow-up						
	3rd follow-up						
Weakness	1st follow-up						
	2nd follow-up						
	3rd follow-up						
Weight Gain	1st follow-up						
	2nd follow-up						
	3rd follow-up						
Other problem (Please explain)	1st follow-up						
	2nd follow-up						
	3rd follow-up						
Other problem (Please explain)	1st follow-up						
	2nd follow-up						
	3rd follow-up						
Other problem (Please explain)	1st follow-up						
	2nd follow-up						
	3rd follow-up						

فرم پیگیری در منزل بعد از ترخیص
(گروه کنترل)

نام و نام خانوادگی بیمار:
تاریخ ترخیص:
1.تا شش هفته بعد از ترخیص شما با چه کسی زندگی خواهید کرد؟
الف) تنها ب) همسرم
ج) با همسر و فرزند/ فرزندانم
د) با همسر و فرزند/ فرزندانم ر) دیگر(لطفا شرح دهید)............................
2.سطح تحصیلات کسی که بعد از ترخیص به مراقبت از شما کمک خواهد کرد چقدر است؟
الف) خواندن و نوشتن ب) بی سواد ج) ابتدایی د) راهنمایی
ر) دبیرستان دانشگاه ش) هیچ کس برای کمک نیست
ص) دیگر(لطفا شرح دهید)...........
3. گسترده ترین منبع اطلاعاتی که شما بعد از ترخیص استفاده کردید (شما می توانید بیش از یک جواب را علامت بزنید)
الف) هیچ چیز ب) مطالعه کتابچه ج) ویدئو د) اطلاعات داده شده به وسیله پرستار
ر) اطلاعات داده شده به وسیله پزشک س) اطلاعات داده شده به وسیله متخصص تغذیه
ش) دیگر(لطفا شرح دهید)..........

اطلاعات در مورد مشکلاتی که بیماران گروه کنترل با آن مواجه می شوند:

مشکلات	وضعیت مشکلات ایجادی			مداخله برای حل مشکل بیمار و بستگانش	وضعیت حل شدن مشکل	
	نه	بله	پیگیری		نه	بله
مشکلات سیستم تنفسی و گردش خون						
مشکلات تنفسی	پیگیری اول					
	پیگیری دوم					
	پیگیری سوم					
خستگی	پیگیری اول					
	پیگیری دوم					
	پیگیری سوم					
درد سینه	پیگیری اول					
	پیگیری دوم					
	پیگیری سوم					
تپش قلب	پیگیری اول					
	پیگیری دوم					
	پیگیری سوم					
سرگیجه	پیگیری اول					
	پیگیری دوم					
	پیگیری سوم					
قشار خون بالا	پیگیری اول					
	پیگیری دوم					
	پیگیری سوم					
مشکلا ت سیستم گوارشی						
از دست دادن اشتها	پیگیری اول					
	پیگیری دوم					
	پیگیری سوم					
تهوع	پیگیری اول					
	دوم پیگیری					
	سوم پیگیری					
استفراغ	پیگیری اول					
	پیگیری دوم					

	پیگیری سوم					
یبوست	پیگیری اول					
	پیگیری دوم					
	پیگیری سوم					
اسهال	پیگیری اول					
	پیگیری دوم					
	پیگیری سوم					
مشکلات در ارتباط با زخم						
ادم در پاها(تورم)	پیگیری اول					
	پیگیری دوم					
	پیگیری سوم					
درد پا	پیگیری اول					
	پیگیری دوم					
	پیگیری سوم					
استفاده نکردن ازجوراب واریس	پیگیری اول					
	پیگیری دوم					
	پیگیری سوم					
تخلیه ترشحات از زخم جراحی (از پا و سینه یا دیگر زخم های جراحی توضیح دهید)	پیگیری اول					
	پیگیری دوم					
	پیگیری سوم					
قرمزی در زخم جراحی (از پا و سینه یا دیگر زخم های جراحی توضیح دهید)	پیگیری اول					
	پیگیری دوم					
	پیگیری سوم					
تورم در زخم جراحی (لطفا توضیح دهید	پیگیری اول					

ساق پا و قفسه سینه و یا دیگر زخم های جراحی)						
	پیگیری دوم					
	پیگیری سوم					
درد در زخم جراحی (لطفا توضیح دهید ساق پا و قفسه دیگر زخم های جراحی)	پیگیری اول					
	پیگیری دوم					
	پیگیری سوم					
درد شانه سینه و یا	پیگیری اول					
	پیگیری دوم					
	پیگیری سوم					
ضعف	پیگیری اول					
	پیگیری دوم					
	پیگیری سوم					
افزایش وزن	پیگیری اول					
	پیگیری دوم					
	پیگیری سوم					
تب	پیگیری اول					
	پیگیری دوم					
	پیگیری سوم					
مشکلات دیگر(لطفا شرح دهید)	پیگیری اول					
	پیگیری دوم					
	پیگیری سوم					
مشکلات دیگر (لطفا شرح دهید)	پیگیری اول					
	پیگیری دوم					
	پیگیری سوم					
مشکلات روانی و اجتماعی						
توجه به درون	اول پیگیری					

	دوم پیگیری					
	سوم پیگیری					
عدم تمایل به ارتباطات اجتماعی	پیگیری اول					
	پیگیری دوم					
	پیگیری سوم					
ترس	پیگیری اول					
	پیگیری دوم					
	پیگیری سوم					
توجه به مشکل کمبود	پیگیری اول					
	پیگیری دوم					
	پیگیری سوم					
بد بینی	پیگیری اول					
	پیگیری دوم					
	پیگیری سوم					
امتناع از دیدن ملاقات کنندگان	پیگیری اول					
	پیگیری دوم					
	پیگیری سوم					
سخت به خواب رفتن	پیگیری اول					
	پیگیری دوم					
	پیگیری سوم					
بی خوابی	پیگیری اول					
	پیگیری دوم					
	پیگیری سوم					
خوابیدن به روی شکم	پیگیری اول					
	پیگیری دوم					
	پیگیری سوم					
مشکلات عضلانی اسکلتی						
درد پشت	پیگیری اول					
	پیگیری دوم					
	پیگیری سوم					
درد شانه	پیگیری اول					
	پیگیری دوم					

	پیگیری سوم					
ضعف	پیگیری اول					
	پیگیری دوم					
	پیگیری سوم					
افزایش وزن	پیگیری اول					
	پیگیری دوم					
	پیگیری سوم					
مشکلات دیگر						
تب	پیگیری اول					
	پیگیری دوم					
	پیگیری سوم					
مشکلات دیگر(لطفا شرح دهید)	پیگیری اول					
	پیگیری دوم					
	پیگیری سوم					
مشکلات دیگر(لطفا شرح دهید)	پیگیری اول					
	پیگیری دوم					
	پیگیری سوم					
مشکلات دیگر(لطفا شرح دهید)	پیگیری اول					
	پیگیری دوم					
	پیگیری سوم					

فرم پیگیری در منزل بعد از ترخیص
(گروه مداخله)

نام و نام خانوادگی بیمار:

تاریخ ترخیص:

1. تا شش هفته بعد از ترخیص شما با چه کسی زندگی خواهید کرد؟

الف) تنها　　　　ب) همسرم

ج) با همسر

د) فرزندانم ر) دیگر(لطفاشرح دهید).............................

2.سطح تحصیلات کسی که بعد از ترخیص به مراقبت از شما کمک خواهد کرد چقدر است؟

الف) خواندن و نوشتن ب) بی سواد ج) ابتدایی
د) راهنمایی ر) دبیرستان دانشگاه
ش) هیچ کس برای کمک نیست ص) دیگر(لطفا شرح دهید)...........

3. گسترده ترین منبع اطلاعاتی که شما بعد از ترخیص استفاده کردید (شما می توانید بیش از یک جواب را علامت بزنید)

الف) هیچ چیز ب) مطالعه کتابچه ج) ویدئو د) اطلاعات داده شده به وسیله پرستار
ر) اطلاعات داده شده به وسیله پزشک س) اطلاعات داده شده به وسیله متخصص تغذیه
ش) دیگر(لطفا شرح دهید)........

اطلاعات در مورد مشکلاتی که بیماران گروه مداخله با آن مواجه می شوند

وضعیت حل مشکلات		خدمات مشاوره ای محقق برای رفع مشکل بیمار	مداخله برای حل مشکل بیمار و بستگانش (شرح دهید)	وضعیت مشکلات ایجادی			مشکلات
بله	پیگیری			خیر	بله	پیگیری	
مشکلات سیستم تنفسی و گردش خون							
						اول پیگیری	مشکلات تنفسی
						دوم پیگیری	
						سوم پیگیری	
						اول پیگیری	خستگی
						دوم پیگیری	
						سوم پیگیری	
						اول پیگیری	درد سینه

	دوم پیگیری						
	سوم پیگیری						
تپش قلب	اول پیگیری						
	دوم پیگیری						
	سوم پیگیری						
سرگیجه	اول پیگیری						
	دوم پیگیری						
	سوم پیگیری						
قشار خون بالا	اول پیگیری						
	دوم پیگیری						
	سوم پیگیری						
							مشکلات سیستم گوارشی
از دست دادن اشتها	اول پیگیری						
	دوم پیگیری						
	سوم پیگیری						
تهوع	اول پیگیری						
	دوم پیگیری						
	سوم پیگیری						
استفراغ	اول پیگیری						
	دوم						

	پیگیری						
	سوم پیگیری						
یبوست	اول پیگیری						
	دوم پیگیری						
	سوم پیگیری						
اسهال	اول پیگیری						
	دوم پیگیری						
	سوم پیگیری						
مشکلات در ارتباط با زخم							
ادم در پاها(تورم)	اول پیگیری						
	دوم پیگیری						
	سوم پیگیری						
درد پا	اول پیگیری						
	دوم پیگیری						
	سوم پیگیری						
استفاده نکردن از جوراب واریس	اول پیگیری						
	دوم پیگیری						
	سوم پیگیری						
تخلیه ترشحات از زخم جراحی (از پا و سینه یا دیگر زخم	اول پیگیری						

های جراحی توضیح دهید)							
	دوم پیگیری						
	سوم پیگیری						
قرمزی در زخم جراحی (از پا و سینه یا دیگر زخم های جراحی توضیح دهید)	اول پیگیری						
	دوم پیگیری						
	سوم پیگیری						
تورم در زخم جراحی (لطفا توضیح دهید ساق پا و قفسه سینه و یا دیگر زخم های جراحی)	اول پیگیری						
	دوم پیگیری						
	سوم پیگیری						
درد در زخم جراحی تورم در زخم جراحی (لطفا توضیح دهید ساق پا و قفسه سینه و یا دیگر زخم های جراحی)	اول پیگیری						
	دوم پیگیری						
	سوم پیگیری						
مشکلات روانی و اجتماعی							

توجه به درون	اول پیگیری						
	دوم پیگیری						
	سوم پیگیری						
عدم تمایل به ارتباطات اجتماعی	اول پیگیری						
	دوم پیگیری						
	سوم پیگیری						
ترس	اول پیگیری						
	دوم پیگیری						
	سوم پیگیری						
توجه به مشکل کمبود	اول پیگیری						
	دوم پیگیری						
	سوم پیگیری						
بد بینی	اول پیگیری						
	دوم پیگیری						
	سوم پیگیری						
امتناع از دیدن ملاقات کنندگان	اول پیگیری						
	دوم پیگیری						
	سوم پیگیری						
سخت به خواب رفتن	اول پیگیری						

						دوم پیگیری	
						سوم پیگیری	
						اول پیگیری	بی خوابی
						دوم پیگیری	
						سوم پیگیری	
						اول پیگیری	نخوابیدن به روی شکم
						دوم پیگیری	
						سوم پیگیری	
مشکلات عضلانی اسکلتی							
						اول پیگیری	درد پشت
						دوم پیگیری	
						سوم پیگیری	
						اول پیگیری	درد شانه
						دوم پیگیری	
						سوم پیگیری	
						اول پیگیری	ضعف
						دوم پیگیری	
						سوم پیگیری	
						اول پیگیری	افزایش وزن
						دوم	

	پیگیری						
	سوم پیگیری						
							مشکلات دیگر
تب	اول پیگیری						
	دوم پیگیری						
	سوم پیگیری						
مشکلات دیگر (لطفا شرح دهید)	اول پیگیری						
	دوم پیگیری						
	سوم پیگیری						
مشکلات دیگر (لطفا شرح دهید)	اول پیگیری						
	دوم پیگیری						
	سوم پیگیری						
مشکلات دیگر (لطفا شرح دهید)	اول پیگیری						
	دوم پیگیری						
	سوم پیگیری						

APPENDİX (III): 36-Item Short Form Survey Instrument

1. In general, would you say your health is:	
Excellent	1
Very good	2
Good	3
Fair	4
Poor	5

2. **Compared to one year ago**, how would your rate your health in general **now**?	
Much better now than one year ago	1
Somewhat better now than one year ago	2
About the same	3
Somewhat worse now than one year ago	4
Much worse now than one year ago	5

The following items are about activities you might do during a typical day. Does **your health now limit you** in these activities? If so, how much?

(Circle One Number on Each Line)

	Yes, Limited a Lot	Yes, Limited a Little	No, Not limited at All
3. **Vigorous activities**, such as running, lifting heavy objects, participating in strenuous sports	[1]	[2]	[3]
4. **Moderate activities**, such as moving a table, pushing a vacuum cleaner, bowling, or playing golf	[1]	[2]	[3]
5. Lifting or carrying groceries	[1]	[2]	[3]
6. Climbing **several** flights of stairs	[1]	[2]	[3]
7. Climbing **one** flight of stairs	[1]	[2]	[3]
8. Bending, kneeling, or stooping	[1]	[2]	[3]

9. Walking **more than a mile**	[1]	[2]	[3]
10. Walking **several blocks**	[1]	[2]	[3]
11. Walking **one block**	[1]	[2]	[3]
12. Bathing or dressing yourself	[1]	[2]	[3]

During the **past 4 weeks**, have you had any of the following problems with your work or other regular daily activities **as a result of your physical health**?

(Circle One Number on Each Line)

	Yes	No
13. Cut down the amount of time you spent on work or other activities	1	2
14. **Accomplished less** than you would like	1	2
15. Were limited in the **kind** of work or other activities	1	2
16. Had **difficulty** performing the work or other activities (for example, it took extra effort)	1	2

During the **past 4 weeks,** have you had any of the following problems with your work or other regular daily activities **as a result of any emotional problems** (such as feeling depressed or anxious)?

(Circle One Number on Each Line)

	Yes	No
17. Cut down the **amount of time** you spent on work or other activities	1	2
18. **Accomplished less** than you would like	1	2
19. Didn't do work or other activities as **carefully** as usual	1	2

20. During the **past 4 weeks,** to what extent has your physical health or emotional problems interfered with your normal social activities with family, friends, neighbors, or groups?

(Circle One Number)

Not at all 1

Slightly 2

Moderately 3

Quite a bit 4

Extremely 5

21. How much **bodily** pain have you had during the **past 4 weeks**?

(Circle One Number)

None 1

Very mild 2

Mild 3

Moderate 4

Severe 5

Very severe 6

22. During the **past 4 weeks,** how much did **pain** interfere with your normal work (including both work outside the home and housework)?

(Circle One Number)

Not at all 1

A little bit 2

Moderately 3

Quite a bit 4

Extremely 5

These questions are about how you feel and how things have been with you **during the past 4 weeks**. For each question, please give the one answer that comes closest to the way you have been feeling.

How much of the time during the **past 4 weeks**...

(Circle One Number on Each Line)

	All of the Time	Most of the Time	A Good Bit of the Time	Some of the Time	A Little of the Time	None of the Time
23. Did you feel full of pep?	1	2	3	4	5	6
24. Have you been a very nervous person?	1	2	3	4	5	6

25. Have you felt so down in the dumps that nothing could cheer you up?	1	2	3	4	5	6
26. Have you felt calm and peaceful?	1	2	3	4	5	6
27. Did you have a lot of energy?	1	2	3	4	5	6
28. Have you felt downhearted and blue?	1	2	3	4	5	6
29. Did you feel worn out?	1	2	3	4	5	6
30. Have you been a happy person?	1	2	3	4	5	6
31. Did you feel tired?	1	2	3	4	5	6

32. During the **past 4 weeks,** how much of the time has your **physical health or emotional problems** interfered with your social activities (like visiting with friends, relatives, etc.)?

(Circle One Number)

All of the time 1

Most of the time 2

Some of the time 3

A little of the time 4

None of the time 5

How TRUE or FALSE is each of the following statements for you.

(Circle One Number on Each Line)

	Definitely True	Mostly True	Don't Know	Mostly False	Definitely False
33. I seem to get sick a little easier than other people	1	2	3	4	5
34. I am as healthy as anybody I know	1	2	3	4	5

35. I expect my health to get worse	1	2	3	4	5
36. My health is excellent	1	2	3	4	5

Iranian Version

SF - 36 HEALTH SURVEY

دستورالعمل: این پرسشنامه شما را در مورد سلامتی خودتان بررسی می‌کند. این اطلاعات کمک می‌کند تا بتوان به ثبت احساسات شما و اینکه شما تا چه حدی توانایی انجام کارهای روزانه خود را دارید، اقدام کرد.
به هر سؤال به همان شکلی که توضیح داده شده است، پاسخ دهید. اگر مطمئن نیستید که چگونه به یک سؤال پاسخ دهید، لطفاً بهترین پاسخ ممکن را انتخاب نمایید.

۱ـ بطور کلی، سلامتی خود را چگونه توصیف می‌نمایید. **(یکی را مشخص نمایید)**

عالی ۱
بسیار خوب ۲
خوب ۳
متوسط ٤
بد ۵

۲ـ در مقایسه با سال گذشته بطور کلی سلامت خود را در حال حاضر چگونه ارزیابی می‌کنید. **(یکی را مشخص نمایید)**

بسیار بهتر از سال گذشته است ۱
کمی بهتر از سال گذشته است ۲
تقریباً مشابه سال گذشته است ۳
کمی بدتر از سال گذشته است ٤
بسیار بدتر از سال گذشته است ۵

۳ـ موارد زیر شامل فعالیت‌هایی است که شما احتمالاً طی یک روز عادی انجام می‌دهید. آیا وضعیت سلامتی شما در حال حاضر این فعالیت‌ها را محدود کرده است؟ اگر چنین است به چه میزان؟ **(از هر ردیف یک عدد را مشخص نمایید)**

فعالیت‌ها	بله، بسیار محدود شده است	بله کمی محدود شده است	خیر، اصلاً محدود نشده است
الف ـ **فعالیتهای سنگین** مثل دویدن، بلندکردن اجسام سنگین، شرکت در ورزشهای قدرتی	۱	۲	۳
ب ـ **فعالیت‌های متوسط** مثل حرکت دادن یک میز، جابجایی جاروبرقی، انجام ورزشهای سبک	۱	۲	۳
ج ـ بلند کردن یا حمل خواربار منزل	۱	۲	۳
د ـ بالا رفتن از **چند** راه‌پله	۱	۲	۳
هـ بالا رفتن از **یک** راه‌پله	۱	۲	۳
و ـ دولا شدن، زانو زدن یا خم شدن	۱	۲	۳
ز ـ راه رفتن برای **بیش از یک کیلومتر**	۱	۲	۳
ح ـ راه رفتن برای **بیش از چند کوچه**	۱	۲	۳
ط ـ راه رفتن برای بیش **از یک کوچه**	۱	۲	۳
ی ـ حمام کردن یا پوشیدن لباس	۱	۲	۳

٤ـ آیا طی ٤ هفته گذشته در کار و یا سایر فعالیت‌های روزمره، به علت وضعیت سلامت جسمانی خود یکی از مشکلات زیر را داشته‌اید؟
(از هر ردیف یک عدد را مشخص نمایید)

	بله	**خیر**
الف ـ **کاهش مدت زمانی** که صرف کار یا سایر فعالیت‌ها نموده‌اید	**۱**	**۲**
ب ـ **به کمتر** از آنچه که تمایل داشته‌اید، دست یافته‌اید	**۱**	**۲**
ج ـ در انجام کارهایی **خاص** یا سایر فعالیت‌ها محدودیت داشته‌اید	**۱**	**۲**
د ـ در انجام کار یا سایر فعالیت‌ها دچار **مشکل** شده‌اید (مثلاً نیازمند تلاش بیشتری بوده‌اید)	**۱**	**۲**

به صفحه بعد مراجعه کنید

۵ـ آیا طی ٤ هفته گذشته در کار و یا سایر فعالیت‌های روزمره، به علت مشکلات روحی خود یکی از مشکلات زیر را داشته‌اید؟ **(از هر ردیف یک عدد را مشخص نمایید)**

	بله	خیر
الف ـ کاهش **مدت زمانی** که صرف کار یا سایر فعالیت‌ها نموده‌اید	۱	۲
ب ـ **به کمتر** از آنچه که تمایل داشته‌اید، دست یافته‌اید	۱	۲
ج ـ کار یا سایر فعالیتهای خود را با **دقت معمول** انجام نداده‌اید؟	۱	۲

٦ـ طی ٤ هفته گذشته سلامت جسمانی یا مشکلات روحی شما تا چه حدی فعالیت‌های معمول اجتماعی شما را در رابطه با خانواده، دوستان، همسایگان با مردم مختل کرده بود؟ **(یکی را مشخص نمایید)**

اصلاً ۱
کمی ۲
تا حدی ۳
زیاد ٤
خیلی زیاد ۵

۷ـ طی ٤ هفته گذشته چقدر درد داشته‌اید؟ **(یکی را مشخص نمایید)**

اصلاً ۱
بسیار کم ۲
کم ۳
تا حدی ٤
شدید ۵
بسیار شدید ٦

۸ـ طی ٤ هفته گذشته درد تا چه حد در کار معمولی و همیشگی شما اختلال ایجاد کرده بود (هم کار خارج از منزل و هم کار منزل)؟ **(یکی را مشخص نمایید)**

اصلاً ۱
کمی ۲
تا حدی ۳
زیاد ٤
بسیار زیاد ۵

۹ـ این پرسش‌ها مربوط به احساسات و وضعیت شما طی ٤ هفته گذشته است. لطفاً برای هر سؤال نزدیکترین پاسخ به احساس خود را انتخاب کنید، چه مدتی طی ٤ هفته گذشته: **(از هر ردیف یک عدد را مشخص نمایید)**

	تمام اوقات	اغلب اوقات	خیلی وقت‌ها	بعضی وقت‌ها	به ندرت	هیچ‌وقت
الف ـ فردی سرحال و سرزنده بوده‌اید؟	۱	۲	۳	٤	۵	٦
ب ـ فردی بسیار عصبی بوده‌اید؟	۱	۲	۳	٤	۵	٦
ج ـ به حدی غمگین بوده‌اید که هیچ‌چیزی شما را شاد نمی‌کرده است؟	۱	۲	۳	٤	۵	٦
د ـ احساس آرامش و امنیت داشته‌اید؟	۱	۲	۳	٤	۵	٦
هـ خود را پر از انرژی احساس می‌کرده‌اید؟	۱	۲	۳	٤	۵	٦
و ـ خود را غمگین و افسرده احساس می‌کرده‌اید؟	۱	۲	۳	٤	۵	٦
ز ـ احساس ضعف بیش از حد می‌کرده‌اید؟	۱	۲	۳	٤	۵	٦
ح ـ فردی شاد بوده‌اید؟	۱	۲	۳	٤	۵	٦
ط ـ احساس خستگی می‌کرده‌اید؟	۱	۲	۳	٤	۵	٦

به صفحه بعد مراجعه کنید

۱۰ـ طی ٤ هفته گذشته، وضعیت جسمانی یا مشکلات روحی چه مدتی فعالیت‌های اجتماعی شما را مختل کرده بود (مثل دیدار دوستان، بستگان و غیره)؟

(یکی را مشخص نمایید)

تمام اوقات ۱
بیشتر اوقات ۲
بعضی اوقات ۳
بندرت ٤
هیچ‌وقت ٥

۱۱ـ هر کدام از عبارات زیر تا چه حدی در مورد شما درست یا نادرست است؟ **(از هر ردیف یک عدد را مشخص نمایید)**

	کاملاً درست است	تا حدود زیادی درست است	نمی‌دانم	تا حدود زیادی نادرست است	کاملاً نادرست است
الف ـ به نظر می‌رسد که من نسبت به دیگر افراد راحت‌تر مبتلا به بیماری می‌شوم	۱	۲	۳	٤	٥
ب ـ سلامتی من مثل دیگر افرادی است که می‌شناسم	۱	۲	۳	٤	٥
ج ـ انتظار دارم که وضع سلامتی‌ام بدتر شود	۱	۲	۳	٤	٥
د ـ وضعیت سلامتی من عالی است	۱	۲	۳	٤	٥

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APPENDIX (IV): Hacettepe University Ethics Committe Form

HACETTEPE ÜNİVERSİTESİ
GİRİŞİMSEL OLMAYAN
KLİNİK ARAŞTIRMALAR ETİK KURULU

06100 Sıhhiye-Ankara
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E-posta: goetik@hacettepe.edu.tr

2 8 Şubat 2013

Sayı: B.30.2.HAC.0.05.07.00/210

ARAŞTIRMA PROJESİ DEĞERLENDİRME RAPORU

Toplantı Tarihi : 13.02.2013 ÇARŞAMBA
Toplantı No : 2013/03
Proje No : LUT 12/158 (Değerlendirme Tarihi 28.11.2012)
Karar No : LUT 12/158 - 13

Üniversitemiz Hemşirelik Fakültesi, öğretim üyelerinden Prof. Dr. Sevilay Şenol Çelik'in sorumlu araştırmacı olduğu Masoumeh Akbari'nin tezi olan LUT 12/158 kayıt numaralı ve ***"Koroner Arter Bypass Greft Ameliyatı Geçiren Hastalara Verilen Taburculuk Eğitiminin ve Danışmanlık Hizmetinin Yaşam Kalitesine ve Taburculuk Sonrası Yaşanan Sorunlara Etkisi"*** başlıklı proje önerisi Kurulumuzda değerlendirilmiş olup, etik açıdan uygun bulunmuştur.

1.Prof. Dr. Nurten Akarsu (Başkan)

2. Prof. Dr. Nüket Örnek Buken (Üye)

İZİNLİ
3. Prof. Dr. Hakan S. Orer (Üye)

4. Prof. Dr. Sevda F. Müftüoğlu (Üye)

Prof. Dr. Cenk Sökmensüer (Üye)

6. Prof. Dr. Kafiye Eroğlu (Üye)

İZİNLİ
7. Prof. Dr. Volga Bayrakçı Tunay (Üye)

İZİNLİ
8. Prof. Dr. Yılmaz Selim Erdal (Üye)

9 Prof. Dr. Songül Vaizoğlu (Üye)

10. Prof. Dr. Melahat Görduysus (Üye)

11. Doç. Dr. R. Köksal Özgül (Üye)

12. Prof. Dr. Cansın Saçkesen (Üye)

13 Doç. Dr. Ayşe Lale Doğan (Üye)

14. Doç. Dr. S. Kutay Demirkan (Üye)

15. Yrd. Doç. Dr. H. Hüsrev Turnagöl (Üye)

GÖREVLİ
16. Av. Meltem Onurlu (Üye)

APPENDIX (V): Written Approval Obtained from the Administration Department of the Hospital

1986

Urmia University of Medical Sciences
and Health Services

Kasım 11, 2012

HACETTEPE ÜNİVERSİTESİ SAĞLIK BİLİMLERİ FAKÜLTESİ HEMŞİRELİK BÖLÜMÜ'NE

Iran Uyruklu Masoumeh Akbari kendi Tezini Urmia Tıp Fakültesi Seyyed Ol Şohada Hastanesi Kardiyoloji Uzmanlık Merkezinde yapılması uygun görülmüştür .Gerekeni yapmanızı rica eder, çalışmalarınızda başarılar dilerim.

Mortaza Motazaker- M.D, Ph.D
Araştırma İşlerinden Sorumlu Rektör Yardımcısı

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(APENDİX VI): Written Informed Consents for Patients

فرم رضایتنامه برای تحقیق هدفمند
(گروه کنترل)

عنوان تحقیق: "تاثیر آموزش و خدمات مشاوره ای پس از ترخیص به بیمارانی که تحت عمل جرّاحی بای پس کرونر قرار گرفته اند در کیفیّت زندگی و مشکلات بعد از جراحی."
تحقیق کننده: معصومه اکبری,
خانم معصومه اکبری، مسئول آموزش (پرستار),این تحقیق دربخش قلب بیمارستان فوق تخصصی قلب سیّد ا لشهدا وابسته به دانشکده پزشکی دانشگاه ارومیّه از میان 100 بیماری که برای اولین بار و به صورت انتخابی تحت عمل جراحی پیوند عروق کرونر بای پس قلبی قرار گرفته اند برنامه ریزی شده است. بطور مشخص بیمارانی که عمل جرّاحی پیوند کرونر انجام میدهند بعد از ترخیص با مشکلات عدیده ای رو به رو میشوند. این مشکلات همانطور که مدّت بهبودی بیمار را طولانی میکند اثر منفی روی کیفیّت زندگی آنها می گذارند. روزی که بیماران دربیمارستان بستری میشوند و روزی که از بیمارستان مرخص می شوند در اولین و دومین کنترل آنها همراه با فرم مشخصات فردی پر سشنامه ها پر خواهد گردید. چنین تصّور میشود که در کاهش مشکلاتی که افراد با آنها مواجه می شوند این تحقیق در امر کمتر کردن مشکلات افراد مثمر ثمر واقع خواهد گردید. ولی در طول مدت این تحقیق بیماران و خانواده های آنان باید جهت پر کردن پرسشنامه ها وقت بگذارند.
در این تحقیق بی اینکه تحت هیچ اجباری قرار بگیرم با تایید و میل شخصی خود شرکت میکنم. از این فرم رضایتنامه یک عدد دریافت کردم.

تاریخ:

نام، نام خانوادگی و امضا شرکت کننده:
نام، نام خانوادگی و امضا شاهد:
نام، نام خانوادگی و امضا تحقیق کننده:: پروفسور دکتر سویلای شنول چلیک
موسّسه ای که در آن مشغول به کار است: دانشگاه حاجت تپه
گروه پرستاری جراحی
شماره تلفن:03123051580/122

فرم رضایتنامه برای تحقیق هدفمند(گروه بیمار)

عنوان تحقیق:: "تاثیر آموزش و خدمات مشاوره ای پس از ترخیص به بیمارانی که تحت عمل جرّاحی بای پس کرونر قرار گرفته اند در کیفیّت زندگی و مشکلات بعد از جراحی."

تحقیق کننده: معصومه اکبری.

خانم معصومه اکبری، مسئول آموزش (پرستار) ,این تحقیق دربخش قلب بیمارستان فوق تخصصی قلب سیّد ا لشهدا وابسته به دانشکده پزشکی دانشگاه ارومیّه از میان 100 بیماری که برای اولین بار و به صورت انتخابی تحت عمل جراحی پیوند عروق کرونر بای پس قلبی قرار گرفته اند برنامه ریزی شده است. ایشان دراین تحقیق تأثیرآموزش پس از ترخیص و مشاوره ی تلفنی را که به بیمارانی که عمل جراحی بای پس را گذرانده اند را بر کیفیت زندگی آنها بررسی می کند. محرز است که بیمارانی که عمل جراحی بای پس را گذرانده اند با مشکلات زیادی روبرو هستند. این مشکلات با طولانی تر شدن دوره بهبود بیماران، بر کیفیت زندگی آنان اثر منفی میگذارد. تصوّر می شود که آموزش های ترخیصی و مشاوره ی تلفنی با بیماران، در کاهش مشکلات افراد مفید باشد. اما در طی این مدت بیماران و خانواده های آنها باید برای دریافت اطلاعات و پر کردن نظرسنجی ها وقت بگذارند. در این تحقیق، روزی که بیماران در بیمارستان بستری می شوند، همراه با فرم مشخصات شخصی پر سشنامه ها استفاده شده و به آنها کتابچه داده خواهد شد. در طول مدتی که بیماران در بیمارستان بستری هستند، در مورد اطلاعات موجود در کتابچه و سؤالات شخصی، در زمانهایی که از طرف بیمار و محقق مشخص شده است آموزش داده می شود. پس از اینکه بیمار مرخص شد در راستای طلب و درخواست بیمار، آموزش بیمارو مشاوره از طریق تلفن ادامه خواهد یافت. به بیماران در روز اول بستری شدن، و روز ترخیص شدن,اولین و دومین کنترل پس ازترخیصشان، همراه فرم مشخصات فردی و پرسشنامه ها نیز داده شده و نظر سنجی اعمال خواهند شد.

به سؤالاتم مربوط به موضوع این تحقیق هم پاسخ داده شد و به اندازه ی کافی مطّلع و روشن گردیدم. می دانم که در صورت نخواستن همکاری در این تحقیق، هر زمان که بخواهم می توانم از آن کناره گیری کنم ودراین صورت نیزازعدم تأثیر منفی روند تداوی، مرا قبت و روابطم با پرسنل مرتبط با سلامتی ام اطمینان حاصل کردم. در این تحقیق بی اینکه تحت هیچ اجباری قرار بگیرم با تایید و میل شخصی خود شرکت میکنم. از این فرم رضایتنامه یک عدد دریافت کردم.

تاریخ:

نام، نام خانوادگی و امضا شرکت کننده:

نام، نام خانوادگی و امضا شاهد:

نام، نام خانوادگی و امضا تحقیق کننده: پروفسور دکتر سویلای شنول چلیک

موسّسه‌ای که در آن مشغول به کار است: دانشگاه حاجت تپه
گروه پرستاری جراحی شماره تلفن:03123051580/122

APPENDIX (VII): Appendix Tables

Additional Table 1[a]: The Problems of Patients after Discharge

Problems	Control Group (n:50)		Intervention Group (n:50)		Statistical Evaluation
	F[1]	%	F[1]	%	
Respiratory System					
Respiratory Difficulty	27	54.0	15	30.0	**P=0.01**
Cardiovascular System					
Blood Pressure	10	20.0	3	6.0	**P=0.03**
Palpitation	20	40.0	7	14.0	**P=0.00**
Gastrointestinal System					
Loss of Appetite	29	58.0	23	46.0	P=0.23
Nausea	2	4.0	3	6.0	P=0.64
Vomiting	0	0	1	2.0	P=0.31
Constipation	17	34.0	11	22.0	P=0.18
Diarrhea	2	4.0	3	6.0	P=0.64
Wound Healing					
Wound Edema					
Leg	26	52.0	12	24.0	**P=0.00**
Chest	6	12.0	1	2.0	**P=0.05**
Leg & Chest	14	28.0	1	2.0	**P=0.00**
Wound Pain					
Leg	13	26.0	7	14.0	P=0.13
Chest	11	22.0	1	2.0	P=0.13
Leg & Chest	19	38.0	1	2.0	**P=0.00**
Wound Drainage					
Leg	5	10.0	5	10.0	P=1.00
Chest	3	6.0	3	6.0	P=1.00
Leg & Chest	1	2.0	0	0.0	P=0.31
Wound Red					
Leg	11	22.0	3	6.0	P=0.02
Chest	3	6.0	4	8.0	P=0.69
Leg & Chest	16	32.0	1	2.0	**P=0.00**
Problems in Social Life					
A refusal to See Visitors	15	30.0	4	8.0	**P=0.00**
Unwillingness to Social Contacts	20	40.0	6	12.0	**P=0.00**
Neurological Problems					
Dizziness	13	26.0	9	18.0	P=0.33
Fatigue	33	66.0	21	42.0	**P=0.01**
Psychological Problems					
Pessimism	4	8.0	5	10.0	P=0.72
Attention Deficit Problem	21	42.0	3	6.0	**P=0.00**
Weakness	27	54.0	14	28.0	**P=0.00**
Introversion	28	56.0	10	20.0	**P=0.00**
Fear	9	18.0	3	6.0	P=0.06
Sleep Problems					
Difficulty in Falling Asleep	36	72.0	14	28.0	**P=0.00**
Insomnia	36	72.0	8	16.0	**P=0.00**
Pain					
Chest Pain	40	80.0	34	68.0	P=0.17
Back Pain	34	68.0	23	46.0	**P=0.02**
Shoulder Pain	36	72.0	16	32.0	**P=0.00**
Other problems [2]	49	98.0	10	20.0	**P=0.00**

* The significance level of $p < 0.05$ was accepted.

Additional Table 1[b]. Distribution of Patient's Answers to Problems after Discharge (Other Problems)

Problems	Control Group		Intervention Group	
	F	%	F	%
Fever	16	32	4	8
Abdominal Distention,	1	2	-	-
Headache	8	16	-	-
Numbness	3	6	2	4
More Sputum	4	8	2	4
Cold Feet	2	4	-	-
Throat	1	2	-	-
Chill Swathing	6	12	-	-
Sensitivity to odors	2	4	1	2
Sexuality	6	12	1	2
Total	49	98	10	20

*Patients after discharge, if are experiencing problems once "problem" has been assessed.

Additional Table 2[a]: Interventions for Solving Problems by Patients and Family in Control Group after Discharge

INTERVENTIONS FOR SOLVING PROBLEMS	Frequency
Use of medication in accordance with physicians recommendations	140
Call for doctor	139
Do massage on back and left shoulder	105
Making arrangements for Nutrition	96
Make appropriate arrangements for social life	93
Psychological consultancy	79
Intervention for have a suitable positions	63
Have initiatives for chronic diseases	35
Intervention for wound infection recovery	27

Additional Table 2[b]:Given Information to Patients During Follow-Up, in House, Consultants, Implemented Initiativesin the Intervention Group

GIVEN INFORMATION, CONSULTANTS AND IMPLEMENTED INITIATIVES	Frequency
Given Information, Consultants	
If problems arise, consult with physician	155
Recommend exactly what instructional booklet included	110
Nutritional regulation according to education booklet	98
Initiatives that will help to your sleep	96
Do not valsalva's maneuver and prevention of constipation	61
Breathing exercises according training booklet	47
Daily living activities put in to the day	45
Having enough rest	43
Take initiatives for chronic disease	38
Do Hiking	32
Respect to the incision site to control signs and symptoms related to wound infection	32
Intervention for having suitable positions	29
Information about drugs	21
Taking analgesics if require	20
Hold them tightly across the incision before coughing	16

Implemented Initiatives	
Encouraged to express their feelings	50
Recommend exactly do what instructional booklet included	50
Control wound healing in the incision site	47
Making back and shoulder massage	20
Do shoulder and arm exercises	18
What to do for feeling better emotionally in the house	16
Take a deep breath, coughing and extremity exercises	15
Selfcare control	14
Checking in terms of lower extremity Odem	13
Help to walk in the house	12

[a:] These initiatives included drinking fluid and listening a light music, have a dark room, a comfortable bed, a few walk befor sleep, and have a elevated under feet at bedtime, take a warm shower, reading books, watching TV, according to booklet.

Additional Table 3: Status of Problem Solving in Control Group Patients

STATUS OF PROBLEM SOLVING	Follow-up 1		Follow-up 2		Follow-up 3	
	F	%[b]	F	%[b]	F	%[b]
Respiratory system						
Respiratory Difficulty (n:28)[a]	3	13.0	10	42.0	6	38.0
Cardiovascular System						
Blood Pressure (n:11)[a]	1	11.0	2	22.0	7	88.0
Palpitation (n:20)[a]	3	20.0	5	36.0	7	54.0
Gastrointestinal System						
Loss of Appetite (n:32)[a]	2	7.0	14	47.0	2	12.0
Nausea (n:3)[a]	1	50.0	2	100	0	0.0
Vomiting (n:1)[a]	0	0.0	1	100	0	0.0
Constipation (n:19)[a]	1	6.0	6	33.0	9	75.0
	0	0.0	2	100	0	0.0
Wound Healing						
Wound Odem						
Leg (n:21)[a]	2	10.0	6	29.0	10	53.0
Chest (n:5)[a]	1	20.0	4	80.0	1	50.0
Leg & Chest (n:13)[a]	4	31.0	4	36.0	5	63.0
Wound Pain						
Leg (n:14)[a]	4	67.0	2	40.0	8	100
Chest (n:10)[a]	1	14.0	5	50.0	4	67.0
Leg & Chest (n:21)[a]	7	37.0	6	46.0	8	100
Wound Drainage						
Leg (n:6)[a]	1	20.0	4	100	1	33.0
Chest (n:5)[a]	0	0.0	1	20.0	4	100
Leg & Chest (n:1)[a]	0	0.0	1	100	0	0.0
Wound Red						
Leg (n:10)[a]	2	29.0	4	50.0	4	100
Chest (n:5)[a]	1	33.0	3	75.0	1	100
Leg & Chest (n:17)[a]	10	63.0	6	86.0	1	100
Problems in Social Life						
A refusal to See Visitors (n:15)[a]	1	10.0	6	50.0	8	89.0
Unwillingness to Social Contacts (n:21)[a]	3	18.0	9	50.0	9	100
Neurological Problems						
Dizziness (n:14)[a]	5	50.0	2	25.0	7	78.0
Fatigue (n:37)[a]	8	24.0	6	22.0	23	100
Psychological Problems						
Pessimism (n:5)[a]	1	25.0	2	50.0	2	100
Attention Deficit Problem (n:22)[a]	1	6.0	8	40.0	13	93.0
Weakness (n:28)[a]	2	8.0	7	29.0	19	100
Introversion (n:28)[a]	3	12.0	7	28.0	18	100
Fear (n:9)[a]	1	14.0	3	50.0	5	100
Sleep Problems						
Difficulty in Falling Asleep (n:39)[a]	3	8.0	6	17.0	30	100
Insomnia (n:39)[a]	5	13.0	5	14.0	29	100
Pain						
Chest Pain (n:44)[a]	2	5.0	2	5.0	40	100
Back Pain (n:34)[a]	2	6.0	7	23.0	25	100
Shoulder Pain (n:38)[a]	1	3.0	13	38.0	24	100

a:(n):Number of problems solved. * Patients have more than one answer was accepted.

b: Percentage of "n" is taken out.

Additional Table4: Quality of Life Mean Score Dependent to Patients Characteristics

DESCRIPTIVE CHARACTERISTICS		QUALITY OF LIFE MEAN SCORE							
		CONTROL GROUP				INTERVENTION GROUP			
		Before surgery in the hospital		Six weeks after their discharge		Before surgery in the hospital		Six weeks after their discharge	
		Mean±SD	**Evaluation**	**Mean±SD**	**Evaluation**	**Mean±SD**	**Evaluation**	**Mean±SD**	**Evaluation**
Age	30-45	40.13±21.16	ANOVA 0.593	41.79±21.38	ANOVA 0.407	38.09±18.23	ANOVA 0.659	86.94±5.51	ANOVA 0.270
	46-61	51.17±21.24		48.35±21.61		48.32±24.50		93.54±5.81	
	62<	44.21±18.41		45.09±26.66		43.04±24.12		93.05±7.30	
Sex	Male	46.94±20.91	t=0.41	40.76±20.92	t=0.232	51.37±23.18	**t=0.00**	92.82±7.35	t=0.864
	Female	31.77±18.12		49.31±19.74		26.62±13.65		93.20±3.66	
Marital status	Married	44.59±21.41	t=0.449	48.29±19.99	t=0.415	45.01±23.76	t=0.390	93.19±6.39	**t=0.037**
	Single or divorced	36.14±17.88		39.66±22.05		65.83±0		79.31±0	
Education level	Literacy	39.3±20.64	ANOVA 0.651	46.81±22.45	ANOVA 0.11	43.11±21.36	ANOVA **0.024**	91.51±7.79	ANOVA 0.067
	Primary	45.18±24.27		45.35±18.77		50.10±25.05		93.62±4.44	
	Elementary	54.52±24.89		39.52±12.80		33.34±18.49		90.09±8.06	
	High school	46.79±19.32		57.85±18.24		65.98±22.72		97.76±2.72	
	University	39.58±16.64		25.70±4.33		-		-	
Job status	Employed	43.51±19.02	t=0.835	49.0±18.12	t=0.501	45.82±23.78	t=0.901	92.38±7.52	t=0.546
	Un Employed	44.93±26.57		44.0±24.78		44.97±24.13		93.53±5.49	
Economic Status	Income lower than expenses	47.63±17.81	ANOVA 0.839	36.02±13.52	ANOVA 0.182	54.02±29.19	ANOVA 0.475	95.14±3.99	ANOVA 0.451
	Income higher than expenses	42.10±18		51.93±19.67		39.86±19.34		91.09±7.5	
	Balance between income and expenses	45±23.62		48.57±20.75		45.37±23.95		93.07±6.76	
Life Status	Alone	29.61±0	t=0.50	40.69±0	t=0.732	34.52±20.07	t=0.282	92.91±4.58	t=0.999
	Not alone	44.20±21.24		47.74±20.24		46.64±23.95		92.91±6.85	
Smoking	Yes	42.04±21.49	t=0.449	48.90±20.64	t=0.581	41.57±24.56	t=0.216	93.53±6.12	t=0.483
	No	46.71±20.78		45.65±19.52		49.96±22.32		92.19±7.23	
Live in	City	42.62±19.78	t= 0.395	47.5±20.79	t=0.978	44.57±24	t=0.726	92.34±6.61	t=0.401
	Vilage	49.05±26.39		47.76±17.82		47.09±23.72		94.02±6.69	
Had Chronic Illness	Yes	35.14±18.22	**t=0.046**	44.89±25.25	t=0.518	35.85±15.40	**t=0.026**	91.40±7.21	t=0.75
	No	49.74±21.50		49.33±22.72		49.68±18.20		92.10±7.92	

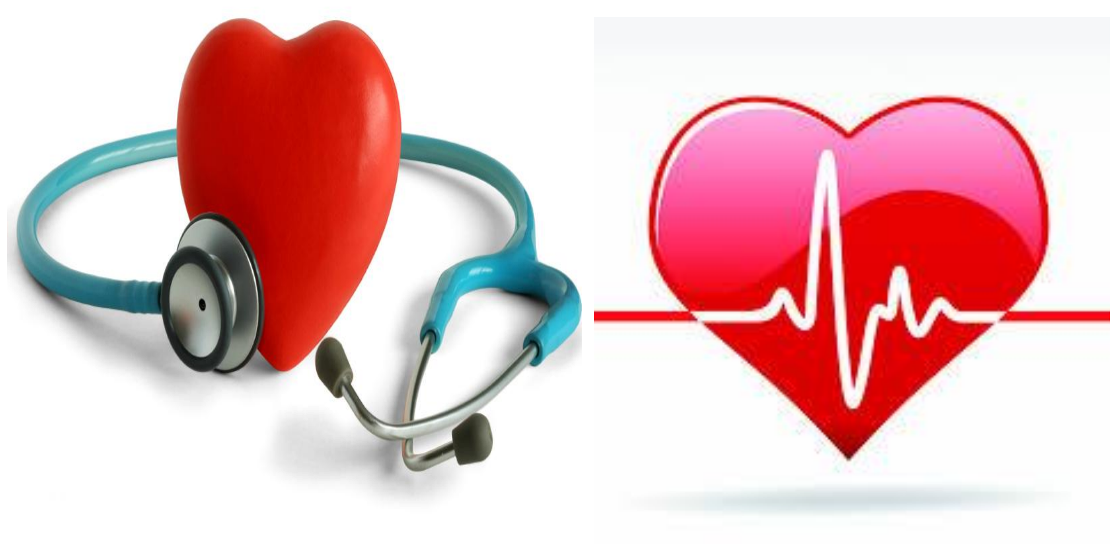
APENDİX (VIII): Discharge Training Booklet

Discharge Training Booklet

1: (An Educational Booklet for Patient and Families before and After CABG Surgery)
2013

My Heart,

Is My Life



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INTRODUCTION

This booklet is a training guide for patients undergoing coronary artery bypass graft surgery**.** This guide is prepared to help you have fewer problems in the postoperative period and return to daily activities as soon as possible.

Although there are differences in individuals in the normal healing process after coronary artery bypass graft surgery, this normal healing process lasts an average of 6 weeks. The healing process begins in the intensive care unit and continues at home**.** If you pay attention to the information in this booklet, the postoperative period will be more comfortable**.**

CORONARY ARTERY DISEASE

AND

CORONARY ARTERY BYPASS

GRAFT SURGERY

What Is Coronary Artery Disease?

Coronary Artery Disease (CAD) is a disease in which a waxy substance called plaque builds up inside the coronary arteries (Figures A, B, C). These arteries supply oxygen-rich blood to your heart muscle.

When plaque builds up in the arteries, the condition is called atherosclerosis. The buildup of plaque occurs over many years. Over time, plaque can harden or rupture (break open) and a blood clot can form on its surface. Hardened plaque and a large blood clot narrow the coronary arteries and reduce the flow of oxygen-rich blood to the heart (see Figure 1).

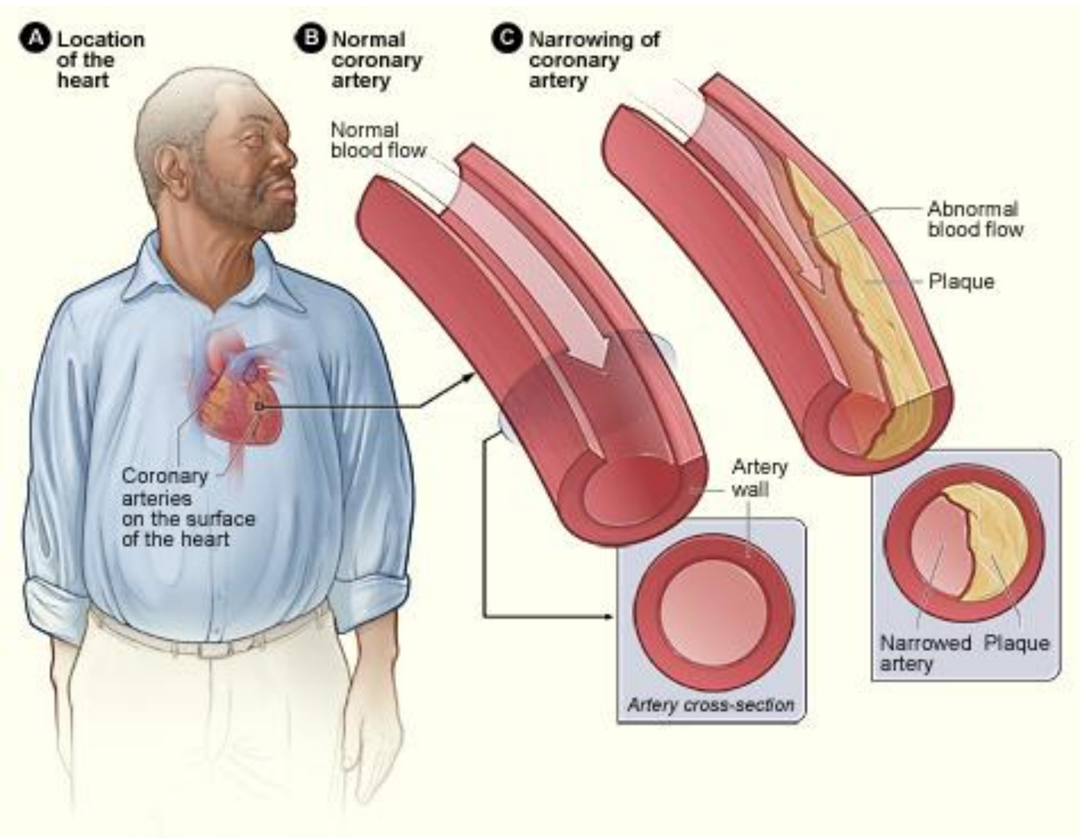


Figure 1: Atherosclerosis

What is Coronary Artery Bypass Graft Surgery?

The purpose of Coronary Artery Bypass Grafting (CABG) is to improve the flow of blood to the heart muscle. However, surgery does not stop the progression of atherosclerosis. For this surgery, a healthy vein or artery is used from the patient's own arm, leg or chest wall, to go beyond (bypass) the narrowed segments of coronary artery and restore normal blood flow to the heart.

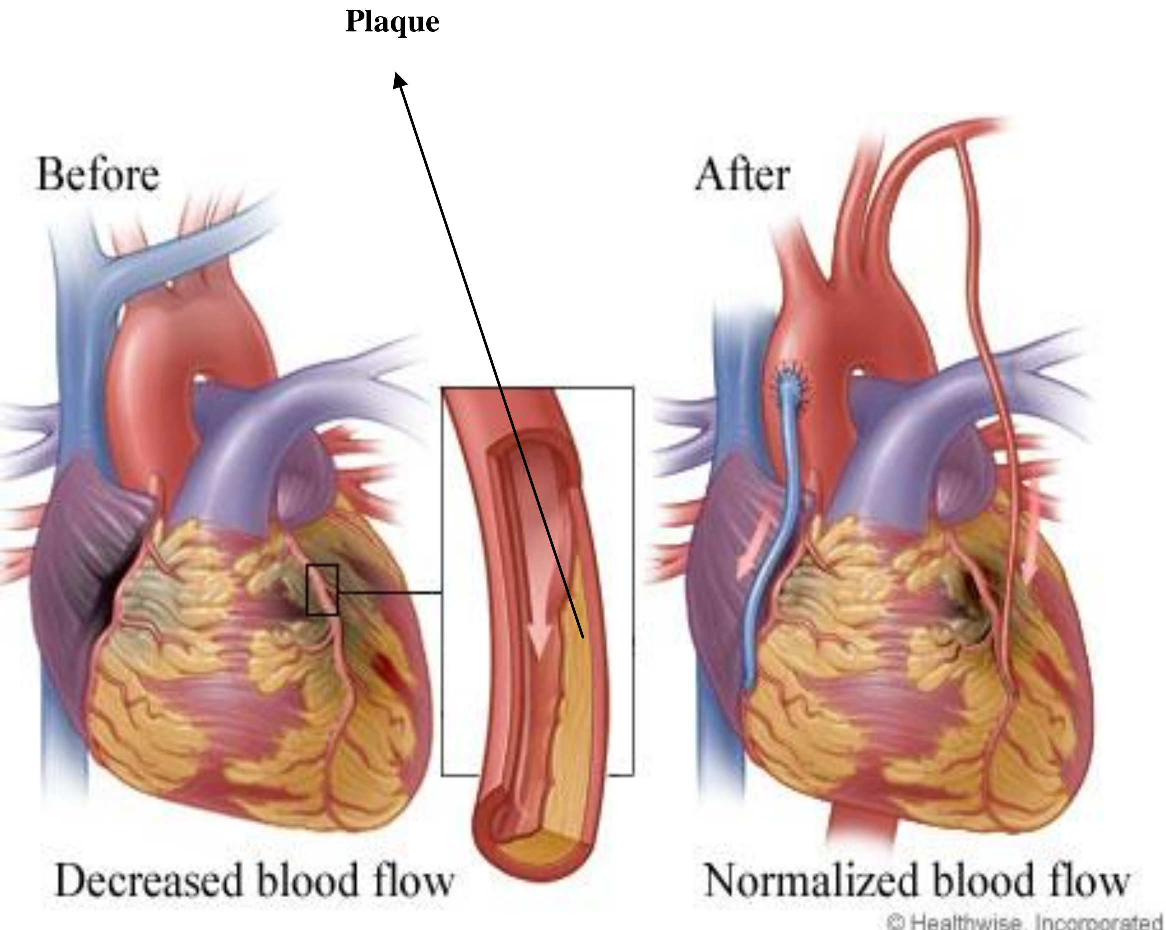


Figure 2: Before and After Coronary Artery Bypass Surgery

READY FOR SURGERY

Figure 3

What to Do Before Surgery

Your hospitalized preoperative preparation begins before surgery. If you pay attention to the things that need to be done in the preoperative period, your postoperative period will be comfortable and your healing process will be faster.

Things to Do Until the Day of Surgery

1. You will receive general anesthesia, and to hasten the postoperative period without any problem, you will also be given some tests (blood count, chest X-ray, etc.).
2. Medications you take before surgery will be stopped. In addition, your other medicines ordered by physician will be given by your nurse.
3. You must stop smoking (people who smoke have more mucous in their lungs, which is hard to remove after surgery).
4. You must not eat or drink anything after midnight the night before the surgery. You may take your normal pills with a small sip of water. If you are diabetic, check with your doctor about your diabetic medicines.
5. You will shower and scrub your abdomen and legs several times with a special soap to kill germs on the day before surgery, and your chest, groin and legs will be shaved on the morning of the surgery.
6. The night before surgery for better sleep, you will be given special medication.
7. You may meet other members of the heart team, such as the anesthesiologist.
8. You will have time to see loved ones before the surgery.

9. You will be asked to remove all dentures and non-permanent bridgework, hair clips, jewelry and nail extensions before going into surgery.
10. You will sign a consent form before surgery**.**
11. Before the surgery, you wear operation clothes and identification bracelets, take premedication and during the operation, you will go to sleep and you will not feel any pain. Surgery length depends on the number of veins changed and stay in hospital is between 3 and 5 days.
12. Training in deep breathing, coughing, and extremity exercises will be given to increase your lungs' capacity, to expectorate, to hasten the healing process, to reduce postoperative "gas pains" and to avoid circulatory problems in the postoperative period. Exercises should be repeated every two hours during the postoperative phase or as prescribed.

How To Do Deep Breathing Exercises

1. You may do deep breathing exercises during dorsal recumbent, semi Fowler or Fowler positions.
2. Put both your hands at the lower end of your chest on the abdominal area.
3. Please inhale slowly through the nose while distending the abdomen, with your mouth closed.
4. Hold your breath for a few seconds.
5. Then exhale slowly through pursed lips.
6. Repeat steps (1) through (5) ten times, as tolerated (see Figure 4).

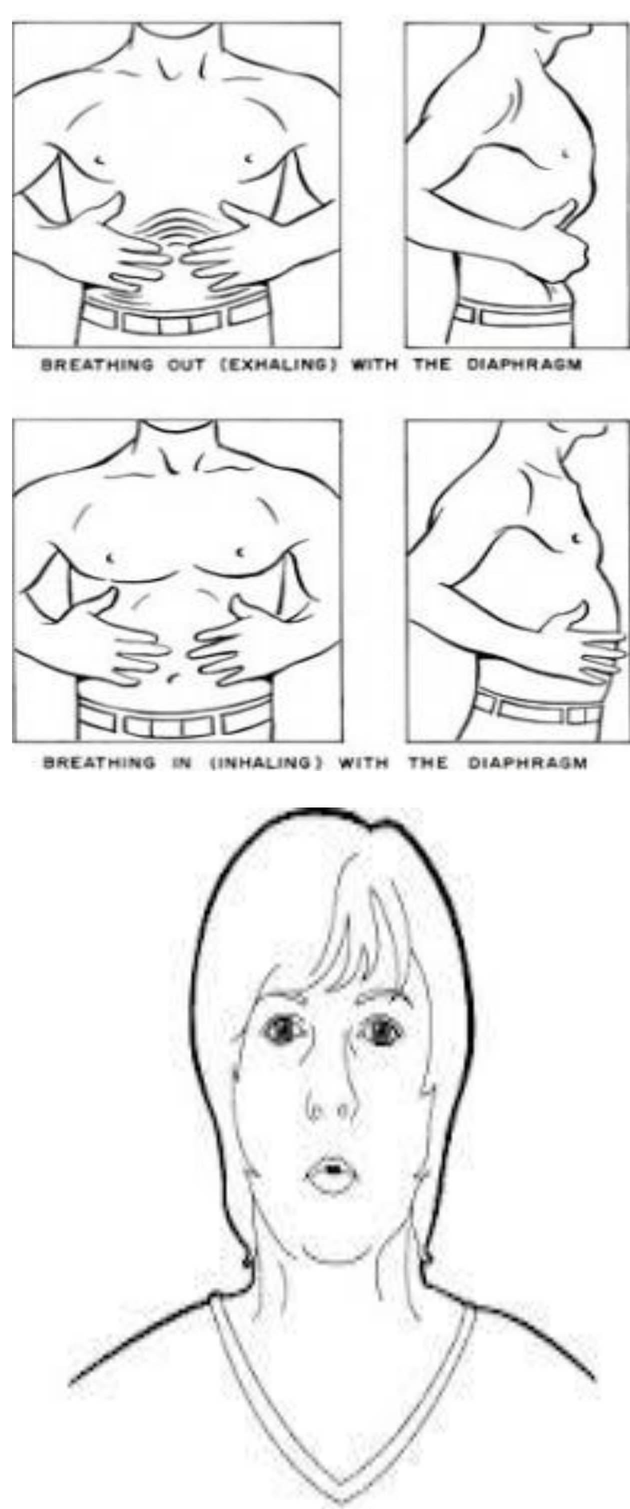


Figure 4: Deep Breathing exercises

How To Do Coughing Exercise

1. You may do deep breathing exercises during dorsal recumbent, semi Fowler or Fowler positions.

2. Put both your hands at the lower end of your chest on the abdominal area.

3. Please inhale slowly through the nose while distending the abdomen with your mouth closed.

4. Hold your breath for a few seconds.

5. Cough quickly after your mouth opens.

6. Repeat steps (1) through (5) ten times, as tolerated.

7. You may lace your fingers and hold them tightly across the incision before coughing. This is used as a splint to minimize pressure and helps to control pain when you cough. A small pillow or folded towel may be used in place of laced fingers (see Pictures 1-2).

NOTE: Perform deep breathing exercises before coughing. This stimulates the cough reflex.

8. If you have a cough that does not go away or you cough up blood or yellow or green mucus, call the doctor.

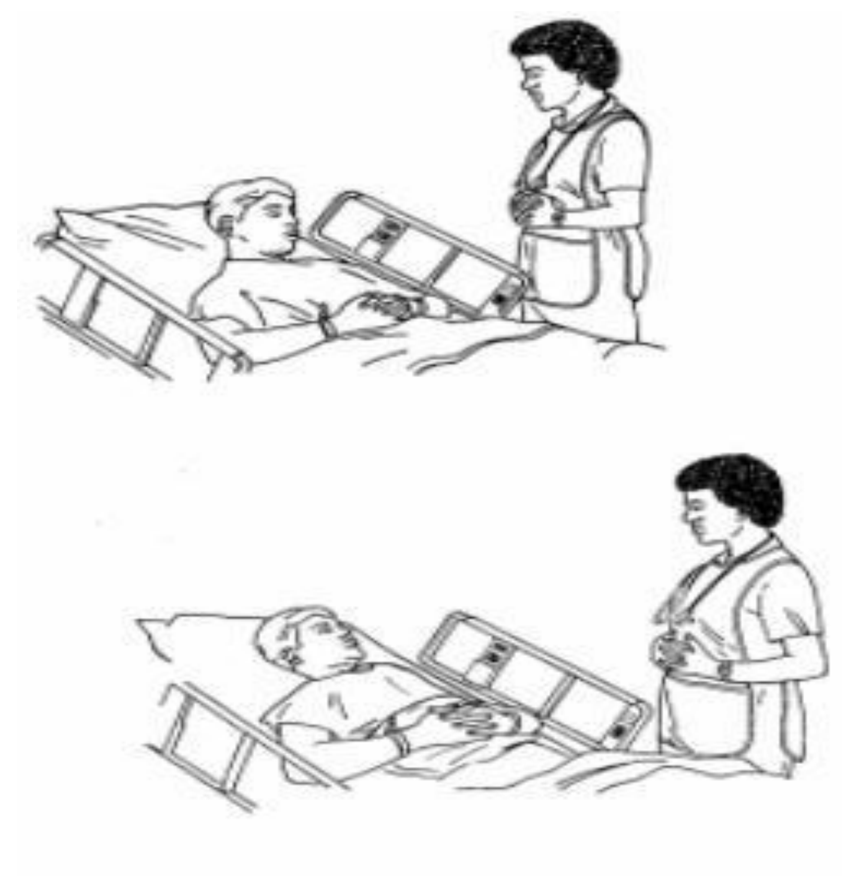


Figure 5: Coughing in dorsal position

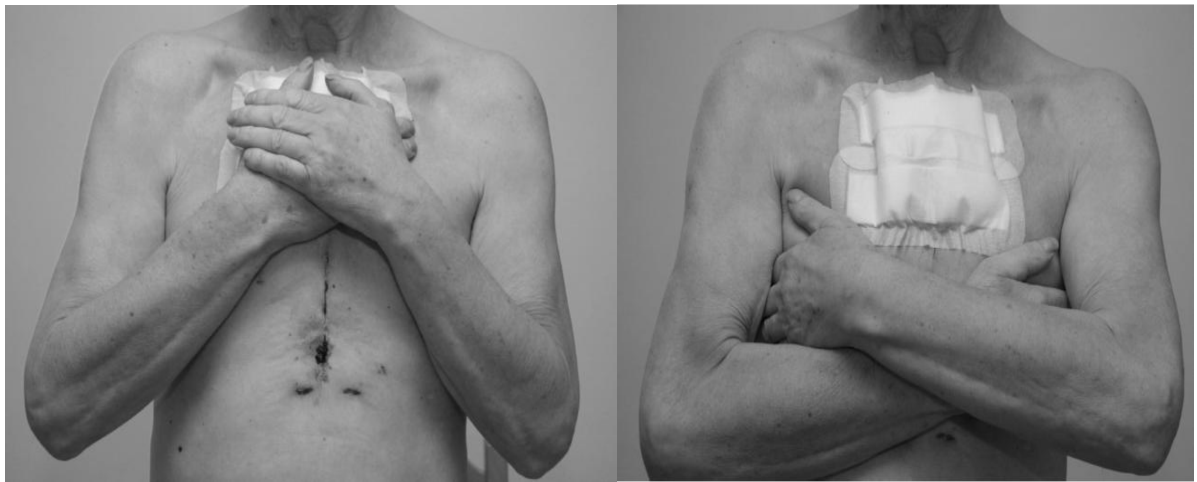


Figure 6: Protection of sternum during cough during cough

Figure 7: Protection of sternum

Figure 8: A belt stabilizing the chest, applied in persons after cardio-surgical operations

1. Flex and extend each joint, particularly the hip, knee, and ankle joints, keeping the lower back flat as the leg is lowered and straightened.
2. Move **intact foot** in a circular motion.

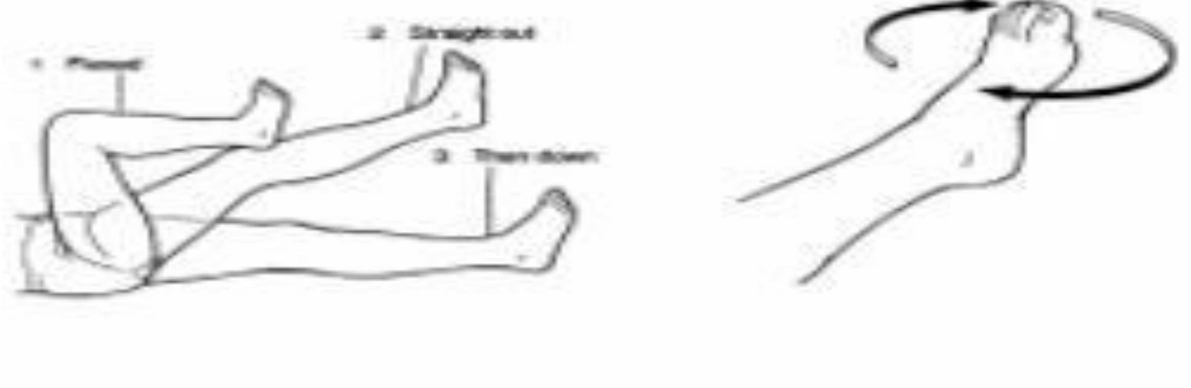


Figure 9: Extremity Exercises

Things to Do Before Surgery in Operating Room

1. You may also receive drugs to help you relax and you may have a face mask to breathe oxygen.
2. During and immediately after the surgery, you will have a small tube in your bladder to drain urine.
3. The operating room may be cool, but you may have a blanket if you wish.
4. You will receive drugs to put you to sleep and to block pain.
5. You will not be awake during the surgery.
6. The heart-lung machine will take over the work of your heart and lungs.
7. You may have two or more small pacing wires on your chest. If needed, these wires will be used to help control your heart beat. They will be removed before you go home.
8. You will have two or three tubes in your chest and will be hooked to a machine to drain extra air and blood. The tubes will be taken out in about a day.
9. After your surgery has finished, your chest and leg wounds will be covered by dressings, and every day these will be changed and a new dressing put on the wounds.

AFTER SURGERY

Figure 10

What to Do After Surgery

After surgery, you will transfer to an intensive care unit for close monitoring for about one to two days and then you will transfer to the heart surgery clinic and can be discharged home about five days later.

1. The monitoring during recovery includes frequent checks of vital signs and other parameters, such as heart sounds and blood work.
2. You will have a breathing tube. The nurse may use a small tube to remove mucous from your breathing tube.
3. As you wake up, you will be weaned from the machine that is helping you to breathe. After the breathing tube is removed, you will have a mask on your face to give you oxygen.
4. If you are in pain, please tell your nurse, who can give you drugs to ease the pain.
5. You must take deep breaths and cough 10 to 20 times an hour.
6. You will learn to use a small gauge, called an incentive spirometer, to see how deep your breaths are and to train yourself to breathe deeply (see figure on page 18).

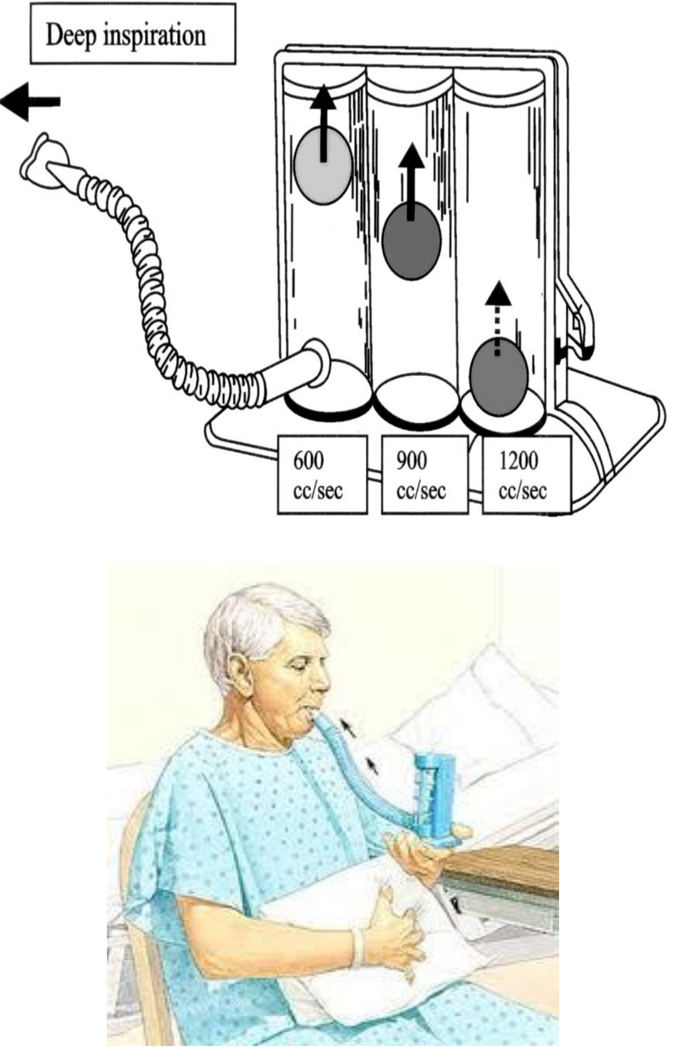


Figure 11: Incentive spirometer

7. You should get up as soon as you can and talk with family and friends.
8. You will walk after transferring to your clinic.
9. If the vessel for the bypass was taken from your leg, you may have some swelling in your legs. Raise your legs above your heart when sitting and do not cross your legs.
10. You may have a chest X-ray, blood work, or other tests, as needed.
11. After a day or two, the dressings over your chest and leg wounds will be taken off.

12. It is common after surgery to have a poor appetite. Your appetite should return within the first few weeks. In intensive care unit, you cannot eat anything for the first day and then you can eat a liquid diet slowly, then continue with a low salt and low fat normal diet.
13. You will have pain in chest and legs, but you can request pain killers.

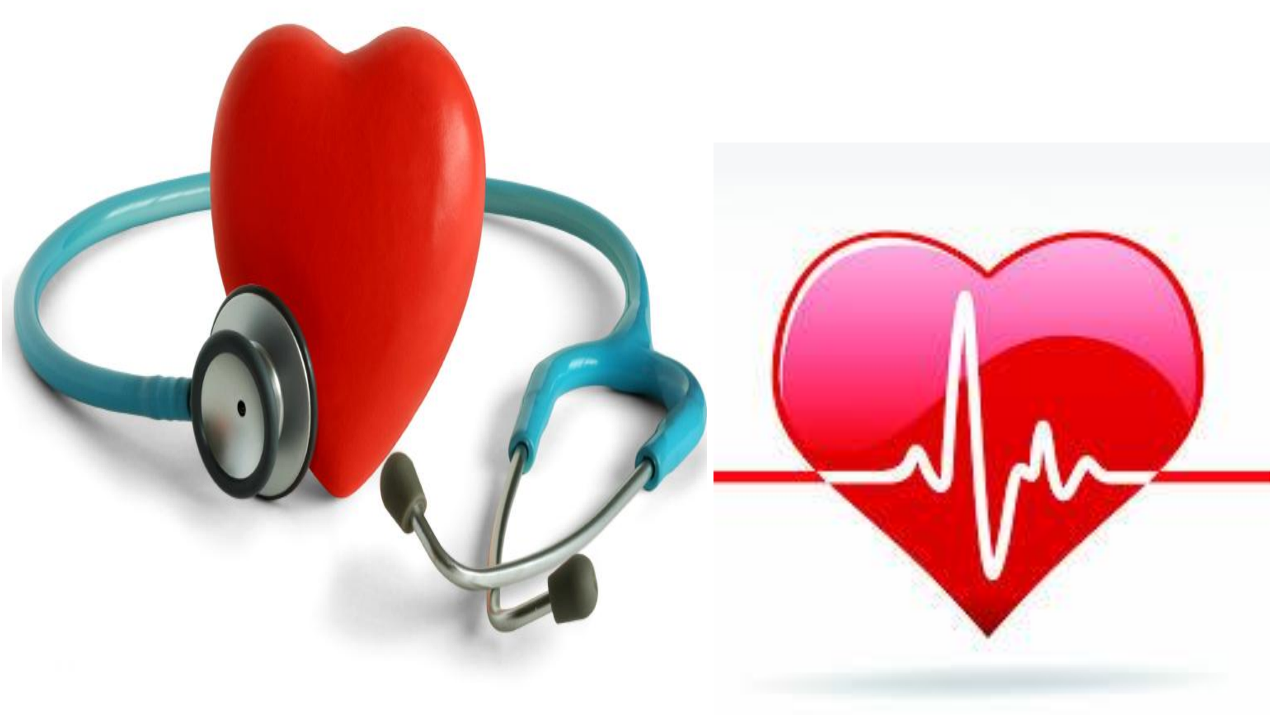
Discharge Training Booklet

2: (An Educational Booklet for Patient and Families before and after CABG Surgery)

2013

My Heart,

Is My Life



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AFTER DISCHARGE

Figure 1

What Are You Doing To Avoid Things After Returning Home?

Before leaving the hospital, it is important for the patient and family to participate in and understand the discharge plan. After returning home, you need a career to stay with you and provide special care for you, for a minimum of 1-2 weeks.

Recommendations for Your Diet

After you go home, there are no diet restrictions for the first month, unless you have diabetes. However, surgery does not stop the progression of atherosclerosis (coronary heart disease), which deposits fatty material into artery walls, narrowing them and eventually limiting blood flow. For this reason you must pay attention to diet.

Figure 2

1. If you have diabetes, always follow your diabetic diet.
2. After one month, follow the low cholesterol/low salt guidelines as directed. Too much salt can cause fluid gain and swelling.
3. 4 to 5 daily servings each of fruits and vegetables (raw and cooked vegetables).

4. 3-plus daily servings of whole grain cereals, legumes, unrefined grain products (for better digestion).
5. 2 to 3 daily servings of low- or non-fat dairy products.
6. 2 to 6 daily servings of vegetable oils for cooking.
7. 2 or more weekly servings of fish (for good healing wounds).
8. 4 to 5 weekly servings of nuts and seeds.
9. Every day you can drink 2 liters of water (8-10 glasses) and 1 liter of liquids (4-5 glasses). Unless you are on a fluid restriction.
10. Sleep 3-4 hours after eating dinner.
11. The eat-less-of list consists of processed meats, sugary beverages, sweets, and baked goods made with refined grains.
12. Do not drink carbonated drinks.
13. Do not over consume coffee, tea, and chocolate.
14. Try to eat smaller, more frequent meals.

Prevention of Constipation

1. Eat more food including fiber (fresh fruits and vegetables, whole grains).
2. Drink enough fluids; about 2 liters of water (8-10 glasses) per day.
3. Drink a glass of warm water half an hour before breakfast.
4. Do not stay immobile.
5. Have a regular bowel habit.
6. Talk with your doctor if you get constipated.

Recommendations for Your Showering and Bathing

1. You should shower with your back facing the showerhead. This prevents water from spraying directly on your incision.
2. Do not take long (maximum 10 minutes).
3. Avoid very hot or very cold water.
4. Do not bathe in a tub, hot tub, or sauna for 30 days or until your wounds are fully healed.
5. Use only plain soap without perfume.
6. Do not use any creams, lotions, or powders for your incision.
7. Arrange to have a family member or caregiver stand close by and assist you as needed.
8. A shower chair may be helpful to prevent you from getting too tired while standing in the shower.

Recommendations for Your Wounds Care

A major aspect of your recovery is caring for the incisions. You also need to take care of the skin around your arm, leg or chest (sternotomy) incisions. Itching, tightness and/or numbness along your incision are normal after surgery. All of your incisions need to be taken care of so that they can heal quickly and without infection.

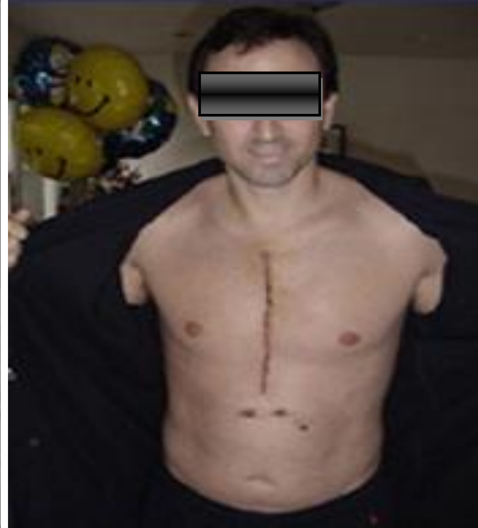


Figure 3

1. Inspect your incision(s) every day. Talk to your doctor if:
   a) You have swelling around the wound, any pus, redness, drainage or oozing coming from the wound (Increased around the incision or increased opening of the incision line).
   b) Your sternum feels like it moves, and it pops or cracks with movement.
   c) Your wounds cause severe pain, or if bleeding occurs.
2. Keep your incision(s) clean and dry.
3. Use only soap and water to cleanse the area. Place soapy water on your hand or washcloth and gently wash the incision up and down. Until the scabs are gone and the skin is completely healed, do not rub the incision with a washcloth.
4. Keep your incision areas protected from the sun to avoid sunburn.
5. Women should wear a supportive bra for 6-8 weeks.
6. Do not lift objects heavier than 5 kg, including small children, trash baskets; do not hug kids, open bottle lids, get up and lie down fast for 6-8 weeks.
7. Do not drive or bike for 6-8 weeks.

8. Avoid push-pull arm movements (i.e., vacuuming, raking, hoeing, lawn mowing).
9. Do not flex or extend your shoulders above 90°.
10. Avoid putting extra pressure on your arms when getting up from a chair or climbing stairs.
11. Keep your swollen arm or leg elevated.
12. Wear compression stockings (see page 33).
13. Place your feet up higher than your heart level when resting. One way to do this is to lie on your bed or couch and put several pillows under your legs. Or, you may lie on the floor and place your feet on the couch. Try this three times a day for one hour to relieve swelling.
14. Do not cross your legs at the ankles or knees.
15. Walk periodically.

Figure 4

Recommendations for Your Activities and Exercises

Exercise is important for healthy healing and will help you return to a more active lifestyle.

In addition, it helps your circulation, heart and lungs to work more efficiently.

1. Gradually increase your activity over the first 3 months.
2. Do not stand in one place longer than 15 minutes.
3. Walk daily:

   a) Take several walks each day. Spread the walks throughout your day.
   b) Don't overdo it: Stop and rest if you get tired.
   c) Gradually increase the distance and duration of your walks. Add one city block to your walk each week.
   d) Do not walk by yourself.
   e) Take stairs at a slow pace.
   f) Don't pull on the banisters with your arms to avoid straining the surgery site.
   g) Don't do too much at once.

4. Do not stand or sit in the same spot for too long. Move around a little bit.
5. Be careful climbing stairs. Balance may be a problem. Rest halfway up the stairs if you need to.
6. Light household chores, such as setting the table, folding clothes, walking, and climbing stairs, should be okay.
7. Do not exercise outside when it is too cold or too hot.

8. Stop if you feel short of breath, dizzy, or feel any pain in your chest.
9. Everyone recovers at a different rate. Please check with your doctor about when to return to work and resume your usual activities.

How to do Arm Exercises

These exercises help you to maintain range of motion and avoid losing muscle tone in your chest, shoulders, and arms.

1. Plan to do these exercises daily for 1 - 2 months after surgery.
2. Start by doing 5 of each daily.
3. Slowly progress to doing 15 of each per day. While you exercise, remember to breathe. Do **not** hold your breath.

How to Do Arm Circles

1. Place your hands on your shoulders.
2. Move your arms clockwise as if you are drawing circles with your elbows.
3. Start with little circles.
4. Make the circles bigger and bigger.
5. Repeat in the opposite direction.

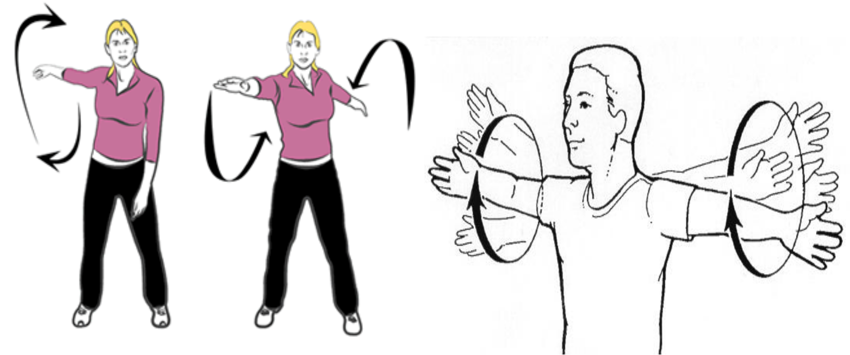


Figure 5

Recommendations for Your Travel

You can travel by air and car when you feel well enough.

1. Always wear a seat belt.
2. To help prevent blood clots, avoid sitting for long periods. Get up and walk at least every hour.
3. If you return home from the hospital by air, arrange to use a wheelchair at both ends of your flight.
4. Your sternal wires will not trigger airport security devices. You need to carry your medical records about surgery.

Recommendations for Your Medicines

Take a list of all the medicines you are prescribed before you leave the hospital. You need to know:

1. The names and doses of your medicines.
2. How much to take of each medicine.
3. When to take each medicine.

4. What side effects to watch for with each medicine.
5. If you forget to take a medicine, do not double your dose. Call your doctor's office or pharmacy for instructions.
6. Take your medications only with water.
7. Consult your doctor to prevent drug interactions, if you use herbal products with your drug.

Recommendations for Pain Relief

You may have pain in your chest area around your incision(s). You should not have pain in your chest similar to what you had before surgery.

1. Primarily take an appropriate position of the body to get rid of pain.
2. Move your arms and legs regularly.
3. Use distraction methods to ease your pain.
4. You will be given a prescription for a pain medication before you leave the hospital.

Recommendations for Sleep Problems

Sleep is vital to your well-being, as important as the air you breathe, the water you drink and the food you eat. Difficulty sleeping is common for a few days after surgery. You can sleep in any comfortable position without hurting your incision(s).

1. Establish a regular sleep schedule. Go to bed and get up at the same time every day.
2. Make sure your bed and surroundings are comfortable. Arrange the pillows so you can maintain a comfortable position.

3. Keep your bedroom dark and quiet.
4. Use your bedroom for sleeping only; don't work or watch TV in your bedroom.
5. Avoid napping too much during the day.
6. Listen to relaxing music.
7. Do not take sleeping pills; they can be harmful when taken with other medication. Talk to your doctor before taking any sleeping aid.
8. Take diuretics or "water pills" earlier, if possible, so you don't have to get up in the middle of the night to use the bathroom.
9. If you can't sleep, get up and do something relaxing until you feel tired. Don't stay in bed worrying about when you're going to fall asleep.
10. Avoid caffeine.
11. Massage therapy for your back, shoulders and legs.
12. Pain pills taken before bedtime may help you sleep.

What to Do for Feeling Better Emotionally After the Surgery

Recovery from major surgery has both physical and emotional aspects. For the first three-to-six weeks, you will probably feel tired, sad, anxious or blue. These feelings should go away after the first few weeks. If they do not, call your doctor**.**

1. Exercise regularly.
2. Take responsibility.
3. Reduce causes of stress.
4. Examine your values and live by them.
5. Set realistic goals and expectations.

6. When you are feeling overwhelmed, remind yourself of what you do well.
7. Get enough rest.
8. Have a Positive Attitude.
9. If you do not cope with your stress, take psychotherapy with a psychologist or psychiatrist.

When You Can Begin Sexual Activity

Most patients who have had under coronary artery bypass graft surgery are worried about returning to a normal sexual life. If your doctor doesn't have a suggestion, you feel ready, good and well rested, you can climb stairs without difficulty breathing and fatigue, or you can walk 500 meters rapidly, you can start sexual life. Approximately 6 weeks after the surgery is safer to begin sexual activity.

1. Talk openly with your partner.
2. Allow a gradual return of sexual activity.
3. Have sex when you are rested and physically comfortable and at least 2 hours after a meal.

When You Can Begin Your Work

Your doctor will tell you when you can return to work. If you have the flexibility at your job, ease back into your work schedule. If possible, start back part-time and gradually increase back to your normal routine.

What Should You Watch For?

1. Check your pulse and temperature every day (see this booklet page 34).
2. Check your arterial blood pressure. This should be done by a health care professional.
3. Tell your doctor at once if your temperature goes to **38** °C or higher.
4. Monitor your blood sugar regularly if you have diabetes.
5. Monitor your weight. It is important to watch your weight very closely after your surgery. A sudden increase in your weight is often a sign of fluid retention.
   - Weigh yourself at the same time every morning. Tell your surgeon if you gain more than **1.4-1.8 kilograms** in two or three days, or if you notice increased swelling in your legs, or feel short of breath.
   - Keep a record of your weight (see this booklet page 34). Bring your weight record with you when you visit your doctor.

Follow-up and Contact Information

1. Take a list of the names and phone numbers of your primary care physician, cardiologist, your nurse and cardiac surgeon, in case of an emergency.
2. You may also want to keep a calendar with the dates and times of scheduled follow-up appointments.

How to Measure and Record Body Temperature and Pulse

Body Temperature, Pulse Rate, Respiration Rate, and Blood Pressure signs are useful in detecting or monitoring medical problems. These signs can be measured in a medical setting, at home, at the site of a medical emergency, or elsewhere. You have to rest before measuring these signs.

What is Body Temperature?

Normal body temperature can range from 36.0°C to 37.5°C for a healthy adult.

How Do You Use a Digital Thermometer?

You mustn't drink or eat anything hot or cold for 10 minutes before taking your temperature.

1. Take the thermometer out of its holder.
2. Put the tip into a new throw-away plastic cover if one is available. If you do not have a cover, clean the pointed end (probe) with soap and warm water or rubbing alcohol. Rinse it with cool water.
3. With your mouth open, put the covered tip under your tongue.
4. Close your lips gently around the thermometer.
5. Keep the thermometer under your tongue until the digital thermometer beeps.

6. Remove the thermometer when numbers show up in the "window".

Figure 6: Digital thermometer with probe

Figure 7: Digital thermometer

7. Read the numbers in the window. These numbers are your temperature.

8. Write down the time and your temperature each time you take it.

9. Remove or eject the throw-away cover if you used one.

10. Place the thermometer back in its holder.

How Do You Use a Glass Thermometer?

You mustn’t drink or eat anything hot or cold for 10 minutes before taking your temperature.

1. Take the thermometer out of its holder.

2. Hold the thermometer by the end opposite the colored (red, blue, or silver) tip.

3. Clean the thermometer with soap and warm water or rubbing alcohol. Rinse with cool water.

Figure 8

4. Turn the thermometer in your hand until you see the red, blue, or silver line. The line should read less than 35.6° C. If the line reads more than 35.6° C, firmly shake the thermometer downward several times. Shake the thermometer over a couch or bed. This will keep it from breaking if it slips out of your hand.

5. Check the thermometer again to make sure it reads less than 35.6°C.

6. With your mouth open, put the end with the red, blue, or silver-colored tip under your tongue.

7. Close your lips gently around the thermometer. Do not bite the glass thermometer.

8. Keep the thermometer under your tongue for 3 minutes.

9. Remove the thermometer without touching the tip.

10. Gently wipe the thermometer with a tissue.

11. Hold the thermometer at eye level.

12. Slowly turn the thermometer until you see the red, blue, or silver-colored line. Each long mark on the thermometer is the same as 1 degree. Short marks are the same as 0.2 degrees.

13. Write down the time and your temperature each time you take it.

14. Wash the thermometer with soap and warm water. Do not use hot water because it may break the thermometer.

What is the Pulse Rate?

The pulse rate is a measurement of the heart rate, or the number of times the heart beats per minute. The normal pulse for healthy adults ranges from 60 to 100 beats per minute.

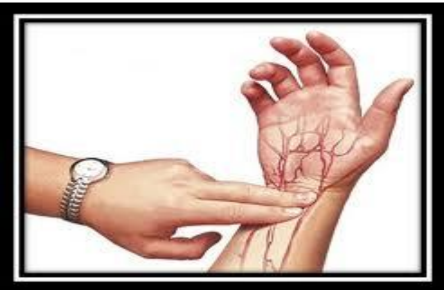


Figure 9

How to Check Your Pulse

1. Using the first and second fingertips, press firmly but gently on the elbow artery until you feel a pulse.
2. Begin counting the pulse when the clock's second hand is on the 12.

3. Count your pulse for 60 seconds (or for 15 seconds and then multiply by four to calculate beats per minute).
4. When counting, do not watch the clock continuously, but concentrate on the beats of the pulse.
5. If unsure about your results, ask another person to count for you.

How to Wear your Compress Stockings

The compress stockings should be worn daily as long as a patient is at increased risk of forming blood clots in the leg.

1. Raise your leg in the morning before you get out of bed.
2. Gather the socks in your hand.
3. Wear socks while your legs are elevated.
4. Wear socks by standing after reach your knee joint.
5. Keep your socks unwrinkled.
6. Remove your socks before night.
7. Wash your socks by hand with warm water and soap; do not squeeze your socks and dry them in the shade.
8. Wear compression stockings for 1 month or as directed by your doctor.

Figure 10

APPENDIX

Table 1: Weight Control

Date	Morning hours	Date	Morning hours	Date	Morning hours

Table 2: Vital Sign Control

Row	Date	Time	Temperature	Pulse	Blood pressure	Considerations

Table 3: When I can start activities (Before start for every activity please call for doctor)

First six weeks		Six weeks later		Three months later
*Light house work(dusting, dining table preparation, wash the dishes, folding clothes)		*Continue activities in the first six weeks (Could make you more comfortable)		*Continue to activities(Could make you more comfortable)
*Light gardening work (planting crops, flowers design)		*If you are working in a job that does not require lifting load, you can return to work by your doctor's suggestion		*Heavy housework (clean places and glasses, carrying a child in her/his arms)
*Sewing, reading a book		*Heavy housework (vacuum cleaner with broom, machine washing)		*Heavy gardening work (snow removal, break ground or dig spuds)
Cooking food		*Heavy gardening work (Mowing the grass, collection of leaves)		Doing sports *(football tennis swimming go shooting)
*Up and down stairs-climbing		*Ironing		*Cycling, heavy lifting, push-ups
*Doing small mechanical jobs		*To travel		*Motorcycle riding
*Shopping		*Fishing, boat riding		
*Go to restaurants, a cinema, tea houses		*Making light aerobic exercises (that does not require weight)		
*Travel as a passenger in		Small caravan		

the car		*riding		
*Hiking The walking belt Using stationary bikes				
*Shampooing your hair				

Table 4: Lists of nutrition after coronary artery bypass surgery

Reduced intake of saturated fatty acids (found in animal products and foods containing animal products)	Increased intake of omega-3 fatty acids	Many fresh fruits and vegetables	Plenty of whole grains
Avoid the following foods: Fried foods Ice cream Fatty meats Poultry with skin Regular deli meats Regular cheeses 2% or whole milk Cream Regular sour cream Butter	Salmon Herring Tuna Flaxseed Canola oil Olive oil Peanut oil Soy nuts Walnuts Butternuts (similar to walnuts)	If you have diabetes, talk to a registered dietitian about how many servings of these foods you should consume/day	Look for the following words on food labels: Whole (nam of grain), su as whole wh whole oats Wheat berri Brown rice, such as brow rice flour Stone-groun whole (name grain), such as stone-groun whole wheat Oats or oatm

Hard margarines (stick) High-fat snack foods High-fat baked goods Cream soups High-fat condiments, such as regular mayonnaise Trans fats are at least equally as detrimental to your heart health as saturated fatty acids You can avoid most trans fats by passing up foods that list “partially hydrogenated fatty acids” as an ingredient			

دانشگاه علوم پزشکی حاجت تپه آنکارا

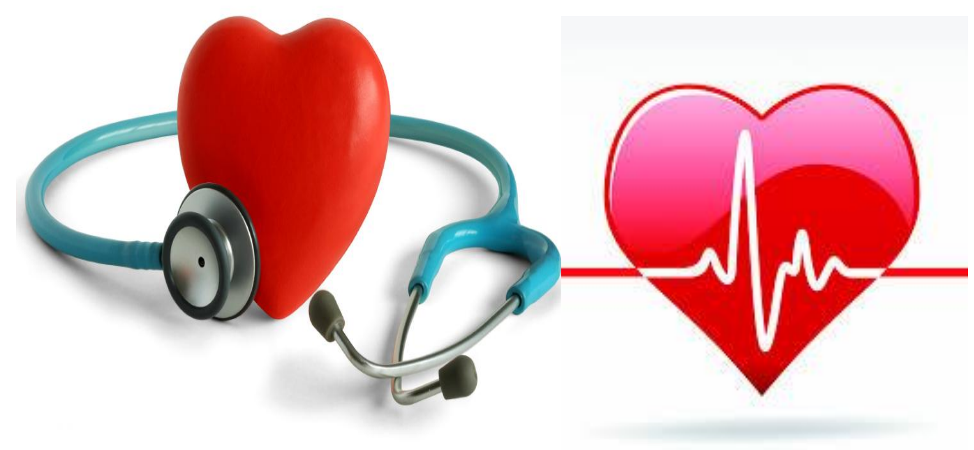
دانشکده پرستاری(گروه پرستاری جراحی)

کتابچه آموزش زمان ترخیص

(برای بیماران با عمل جراحی بای پس قلبی)

قلب من

زندگی من است



نویسنده: معصومه اکبری دانشجوی دکترای پرستاری جراحی (PhD)

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فهرست

مقدمه

1.بیماریهای شریان کرونر,وهدف ازجراحی پیوند عروق کرونر شریانی 5

- بیماری کرونر قلب چیست؟

2.عمل جراحی قلب باز چطور انجام می شود؟و چطور از بروز عوارض بعداز عمل

و انسداد مجددعروق شریانی پیشگیری کنیم

- مروری بر عمل جراحی بای پس

A-قبل از انجام عمل

1. بعضی از کارهایی راکه شما باید انجام دهید تا به بهبودی بهتر شما کمک کند
2. آموزشهای اساسی قبل از عمل

الف) چرخیدن

ب) تفس عمیق

ج) سرفه کردن

د) ورزش اندام ها

B- در زمان انجام عمل

C- بعد از انجام عمل

- انتظارات در هنگام بستری در بخش ICU چه چیز است؟

- شما باید یک ملاقات پیوسته را با پزشکتان ترتیب دهید
- خطرات ناشی از پیوند شریان کرونر قلب

3.چیز هایی که بعد از برگشتن به خانه باید انجام دهید و چیز هایی که

نباید انجام دهید

- بعد از عمل چه چیزهایی از شما انتظار می رود
- چه چیزهایی را باید مشاهده کنید؟
- فعالیت در منزل
- عمل جراحی بای پس عروق قلبی:مراقبت از خود برای بهبود
- مراقبت از دندان

- حمام کردن و انواع آن
- مسافرت
- چیزهایی که شش هفته اول باید پرهیز کنید

4.زمان تماس با پزشک ودارو هایی که باید استفاده شوند و چیز هایی که

باید پیگیری کرد

- دکتر را صدا بکن اگر
- شما نیاز دارید تا بدانید
- دارودرمانی
- وقایع سریع
- در مواقع اورژانس چه باید انجام دهیم

5.علائم و نشانه های عوارض بعد از عمل

6.برای داشتن احساسی بهتر بعد از عمل چه باید کرد

- خواب
- اگر من مشکل خواب داشتم چه کنم؟
- کار
- احساسات

7.لیست غذاهای توصیه شده و غذاهای توصیه نشده برای قلب سالم

- رژیم غذایی شما در خانه
- چه غذاهایی می توانید بخورید, چه غذا هایی نمی توانید بخورید
- رژیم غذایی برای قلب سالم

8.مراقبت از زخم

9.پیاده روی، ورزش، وحرکات آهسته

10.زمان از سرگیری فعالیت جنسی وزمان مراجعه برای پیگیری

- از سر گیری فعالیت جنسی
- چه موقع رابطه جنسی ایمن می توان داشت؟
- مشکلات جنسی

11.چطور علائم حیاتی(تب,نبض,فشار خون وتنفس) خود را کنترل کنیم؟

- درجه حرارت بدن چیست؟

- شمارش تعداد نبض چیست؟
- شمارش تعداد تنفس چیست؟
- فشار خون چیست؟

12. استفاده از جوراب واریس

ضمیمه ها

جداول درمان و پیگیری

- جدول 1:کنترل وزن
- جدول 2:زمانهای ویزیت دکتر
- جدول 3:داروها و عوارض جانبی ناشی ازاین داروها
- جدول 4:کنترل علائم حیاتی
- جدول 5:گزارش چگونگی مصرف دارو
- جدول 6:زمان شروع فعالیتها

مقدمه

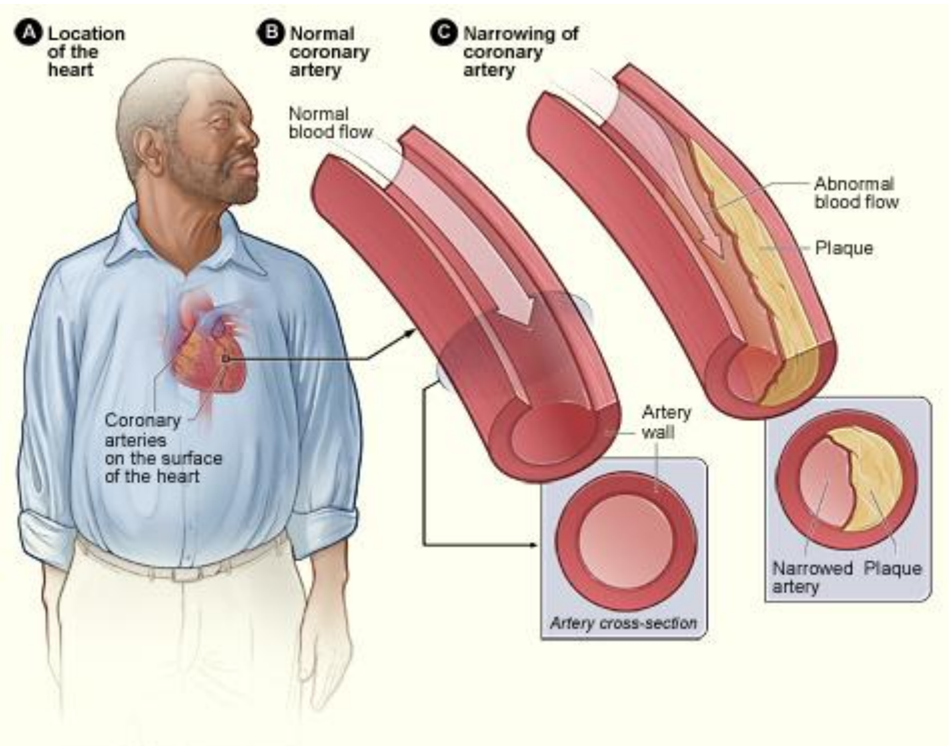
بیمارانی که تحت عمل جراحی بای پس قلب می شوند با تعداد بسیاری از عوارض بالقوه و نگرانی مو اجه هستند.غلبه کردن به ترس بیمار ضروری است و هرگونه مشکلات بعد از عمل را تشخیص وبا تدبیربرنامه ریزی مناسب را برای بازگشت بیمار به زندگی طبیعی در کوتاه ترین زمان ممکن طرح ریزی کرد.

این کتابچه به شما برای ایجادیک زندگی جدید پس ازعمل جراحی وسازگاری با آن کمک می کند.

1.بیماریهای شریان کرونر,وهدف ازجراحی پیوند عروق کرونر شریانی

بیماری کرونر قلب چیست؟

عروق کرونرخون غنی از اکسیژن را به عضلات قلب می رساند.بیماری کرونر قلب توسط یک ماده موم مانندی بنام پلاک که قسمت داخلی رگهای قلبی را مسدود می کنند ایجاد می شود تداوم این امربعد از سالها باعث سفت وسخت شدن رگها واشکال در عملکرد رگها می شود که به آن آترو اسکلرز می گویند.



شکل A موقعیت قرار گرفتن قلب در بدن را نشان می دهد.

شکل B شریانهای کرونر را با جریان خون طبیعی و مقطع آنها نشان میدهد.

شکل C تنگ شدن شریانهای کرونر را توسط پلاکها,اختلال در جریان خون این عروق ومقطع تنگ شده این رگها را نشان می دهد.

با گذشت زمان پلاکها پاره شده وهمراه با لخته های خون باعث تنگ شدن رگها و کاهش جریان خون اکسیژن دار به قلب می شود.

2.عمل جراحی بای پس عروق قلبی چطور انجام می شود. چطور از بروز عوارض بعداز عمل و انسداد مجدد عروق شریانی پیشگیری کنیم

مروری بر عمل جراحی قلب باز

عمل جراحی بای پس که CABG نامیده می شود می تواند باعث برگرداندن جریان خون به قلب شود. به هر حال این عمل از پیشرفت سفت وسخت شدن رگها (آترواسکلروز) نمی تواند مانع شود.و عروق کرونر می تواند دوباره توسط چربی ها مسدود شود وجر یان خون جاری در آنها را کاهش دهد.

بیمار و مراقبین او باید بعد ازجراحی با هم کار کنند تا جلو عواملی که باعث پیشرفت آتروسکلرز می شوند را بگیرند.این کار می تواند کمک کند تا خطرات ناشی ازعوارض بعد از عمل مثل حمله قلب و مرگ کاهش یابد.کمک می کند تا بیمار احساس بهتری داشته و خود را پر انرژی حس کند.

آمادگی قبل از عمل جراحی

شما باید کارهایی را انجام دهید تا روند بهبودی شما را بهتر کند

1- ازسه روز قبل از عمل داروهایی از قبیل آسپرین را نباید بگیرید چون میتواند منجر به خونریزی شود وبرای مصرف هر دارویی باید با دکتر خود مشورت کنید.
2- مصرف سیگار را باید متوقف کنید چون سیگار ترشحات ناحیه تنفسی را زیاد کرده وبعد از عمل تخلیه این ترشحات مشکل می شود.
3- باید کسی برای مراقبت از شما بعد از مرخص شدن از بیمارستان و رفتن به خانه داشته باشید هزینه سرویسهای خدماتی زیاد است.
4- شما در بیمارستان به خون نیاز خواهید داشت اگر کسی را می شناسید که هم خون شما است به دکترتان اطلاع دهید.

5- از نیمه شب قبل از عمل شما نباید چیزی خورده و بنوشید.شما فقط می توانید قرصهای خود را با جرعه ای آب بخورید.اگر شما دیابت دارید دارو های دیابت خود را با دکترتان کنترل کنید. این مسئله از استفراغ حین عمل جلو گیری می کند.

6- قبل از عمل شما نیاز به عکس برداری از قفسه سینه,آزمایش خون و ادرار,نوار قلبی دارید که یک روز قبل از عمل باید انجام شود.

7- روز قبل از عمل شما باید شکم و پاهای خود را چندین دفعه با صابونهای مخصوص بشویید وصبح روز عمل, سینه,کشاله ران و پاهای خود را بتراشید.

8- همه داروهای مصرفی خود را روز قبل از عمل همراه خود بیاورید و به پزشک و پرستار خود تان نشان دهید.برای خوابیدن راحت تر شب به شما داروی مخصوصی خواهند داد.

9- وسایل قیمتی مثل طلا,پروتز, داندان مصنوعی,عینک و یا پول را همراه خود به بیمارستان نیاورید.

10- پزشک شما به شما درمورد عمل جراحی شرح داده و از شما امضاء برای رضایت عمل گرفته خواهد شد.

11- قبل از عمل شما توسط پزشک متخصص بی هوشی ویزیت خواهید شد.او کسی است که با دارو شما را برای عمل جراحی می خواباند.

اصول آموزش قبل از عمل

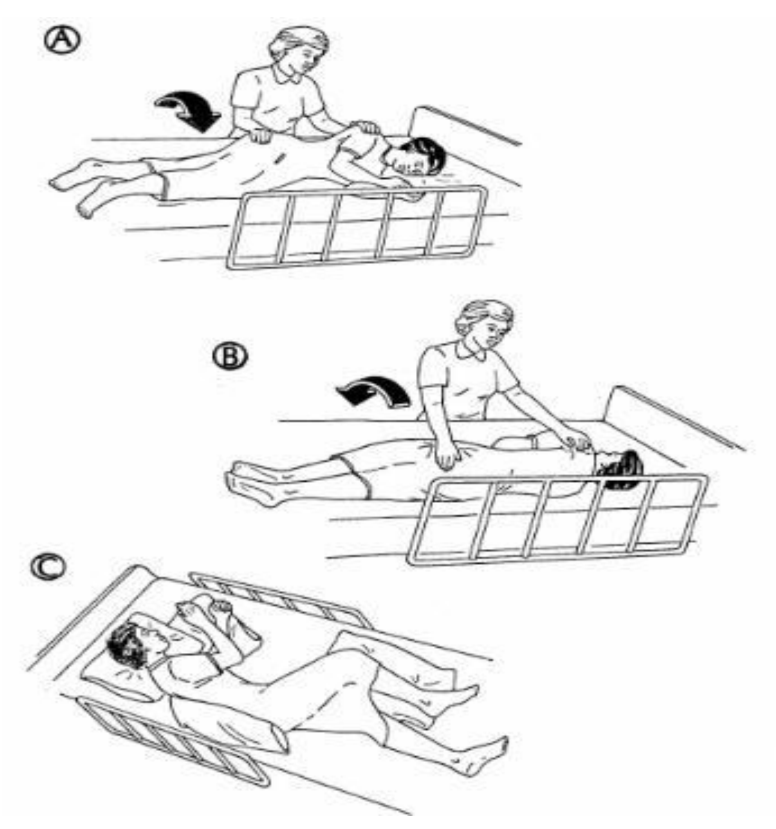
بعد از عمل جراحی برای افزایش ظرفیت ریه ها وسرفه بهتر شما باید خوب یاد بگیرید چطور تنفس عمیق,ورزش و سرفه انجام داده و از بطری تنفسی استفاده کنید.

آموزش قبل از عمل برای بیماران بسیار مهم است وشما باید یاد بگیرید که نگران نباشید و به آینده امیدوار بوده ونیاز های خود را قبل ازعمل بشناسید و درمورد ورزشهای بعد از عمل که شامل نحوه چرخیدن روی تخت,نفس عمیق کشیدن,سرفه کردن و حرکت

دادن اندامها آموزش ببینید.این ورزشها از بروز عوارض بعد از عمل جلوگیری می کند.

چرخیدن روی تخت وخارج شدن هرچه زودتر از تخت باعث می شود تا گردش خون شما هر چه بهتر برقرار شود,عملکرد دستگاه تنفسی بهتر شده و ازتجمع گاز در روده ها که باعث ناراحتی میشود جلو گیری شود.آموزش قبل از عمل به شما کمک می کند که بعد از عمل آنها را بهتر انجام دهید.بعضی کارهای خاص مثل گذاشتن بالش بین پاها برای حفظ تراز بدن مهم است(به عکس شماره 2-1نگاه کنید).

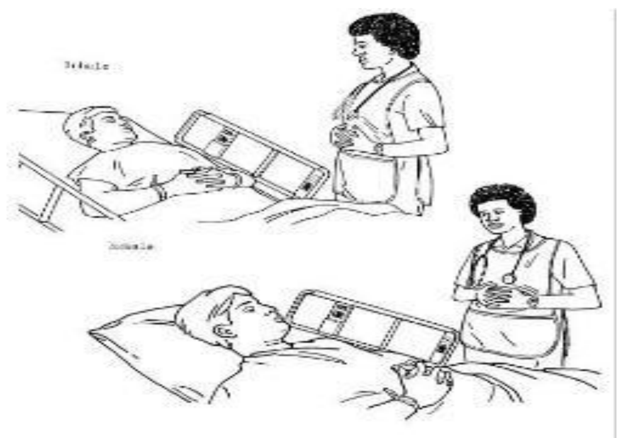
- پرستار به خم کردن دست و پای بیمار اورا می چرخاند
- بیمار می چرخد به طرف پرستار در حالی که دستها و پاهایش خمیده است
- بیمار در وسط تخت قرار گرفته یک بالش زیر پای خمیده او,یک بالش پشت,و یک بالش کوچک زیر سر وشانه و زیر دست بیمار قرار می گیرد.



شکل شماره 2-1 نحوه چرخیدن بیمار روی تخت بعد از عمل

تنفس عمیق: تنفس عمیق از ایجاد ذات الریه وروی هم خوابیدن بعد از عمل جلوگیری می کند. برای این کار شما باید دم و بازدم عمیق انجام دهیدطبق راهنمایی زیر:

1- هوارا از طریق بینی به آهستگی بکشید در حالی که به پشت دراز کشیده اید,در حالی که با دست شکم خود را گرفته اید و لبهای شما به حالت غنچه است هوای بازدم را خارج کنید(شکل شماره 3-1) .
2- در مدت زمان بعد از عمل که بی حرکت هستید تنفس عمیق را 10-5 دقیقه در هر ساعت انجام دهید.



شکل شماره3-1: تنفس عمیق

سرفه: سرفه به بیمار کمک می کند تا ترشحات جمع شده در ریه ها به علت بیهوشی و عدم تحرک خارج شده و منجر به ذات الریه در بیمار نشود.شما برای این کار باید در حالت نشسته و یا دراز کشیده باشید. طبق موارد زیر انجام دهید:

1- در حالی که در رختخواب دراز کشیده اید به جلو خم شوید.
2- یک نفس عمیق بکشید.
3- با دهان کمی باز هوا را بطورکامل به درون بکشید.
4- 4-3 نفس تند انجام دهید.

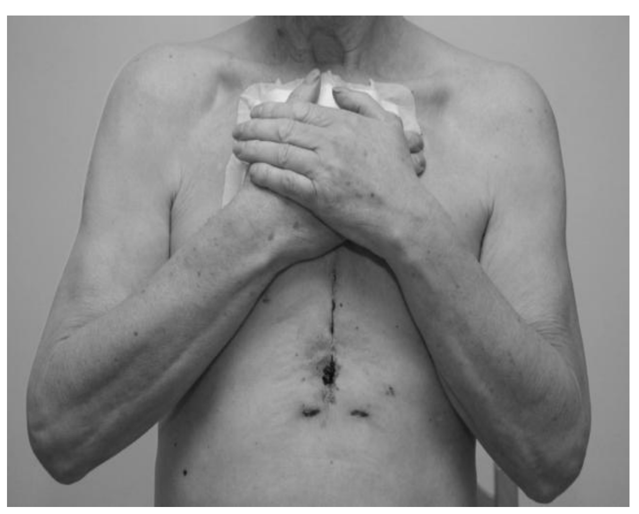
5- با دهان باز یک نفس عمیق بگیرید ویک تا دو سرفه قوی انجام دهید.

6- در صورت تحمل کردن مرحله 5-1 را به مدت ده دقیقه تکرار کنید.

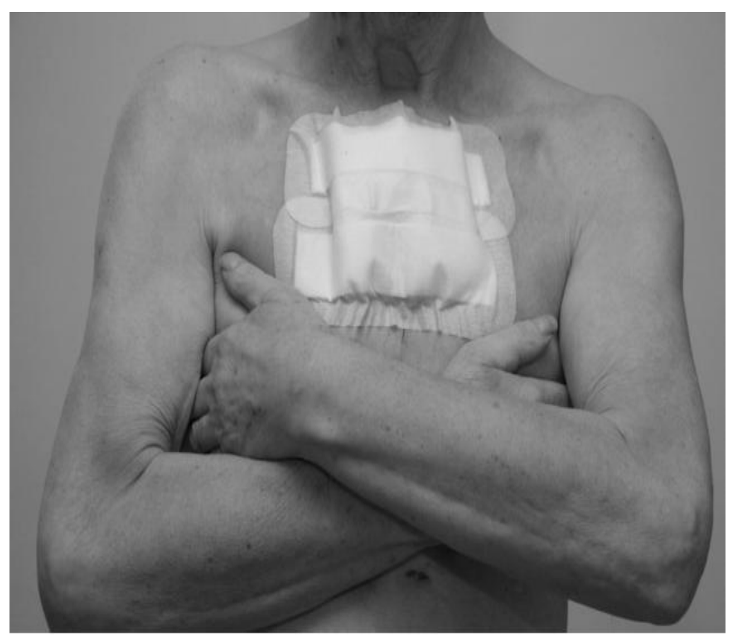
توجه: در مرحله بعد از عمل هر دو ساعت یکباراین مراحل را انجام دهید.

7- قبل از سرفه با انگشتانتان ناحیه بخیه ها را با دست بگیرید. این کار شما مثل یک آتل برای به حداقل رساندن فشار و کمک به کنترل درد در هنگام سرفه عمل می کند. برای انجام بهتر این عمل شما می توانید از یک بالش کوچک و یا حوله روی ناحیه بخیه ها که با انگشتان خود آنرا می گیرید انجام دهید. (به شکل 4-1نگاه کنید)

توجه: کشیدن نفسهای عمیق قبل از سرفه به ایجاد سرفه کمک می کند.



تصویر 1 :حفاظت ازجناغ سینه درهنگام سرفه، روش 1



تصویر 2:حفاظت ازجناغ سینه درهنگام سرفه،روش 2

اهداف آموزشهای قبل از عمل شامل:

انجام دادن تمرینات تنفسی در وضعیتهای مختلف(نشسته, به پشت خوابیده,مستقیم) انجام عمل دم در روشهای مختلف,تحریک سرفه همراه با حفاظت از زخم بوسیله دستها که دردرجه اول محافظت اززخم سینه بدون اعمال فشارزیاد اهمیت دارد(شکل شماره 1).

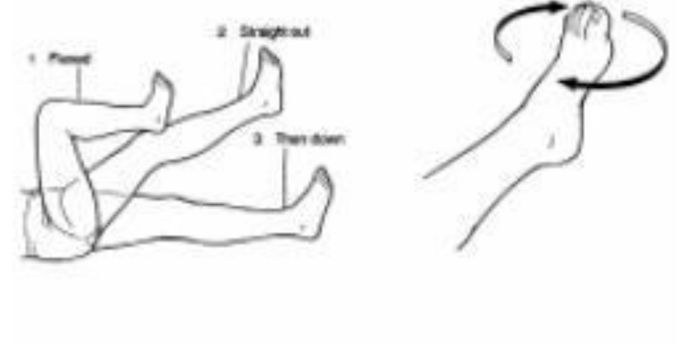
دومین روش برای محافظت از زخم سینه هنگام سرفه قرار دادن دستها زیر بغل و ثابت نگهداشتن قسمت مرکزی قفسه سینه می باشد. این روش سه روز بعد از عمل استفاده می شود.اگر سرفه های مقاوم,قوی و اضافه وزن دارید از سینه بند استفاده کنید. این کار از باز شدن بخیه های شما جلوگیری می کند(شکل شماره3).

شکل شماره3: استفاده از سینه بند در بیماران با جراحی قلب

ورزش اندامها: این حرکات از مشکلات گردش خون مثل ترومبوفلبیت (التهاب رگها بوسیله لخته)

بعد از عمل با تسهیل برگشت خون به قلب پیشگیری می کند.همچنین درد ناشی از تجمع گاز در بدن را کاهش می دهد.شکل شماره 5-1 ورزشهای پاها را نشان می دهد.شما باید:

1- شما باید هر مفصل را خم و راست کنید.مفصل لگن,زانو ومچ پا,قسمت پایین پشت را صاف نگهدارید و پا را راست کنید.
2- مچ پا را در یک حرکت دورانی بچرخانید.



شکل 1-5.تمرین اندام

- قبل از عمل لباس مخصوص پوشیده ودستبند شناسایی به دست شما بسته خواهد شد و داروهای قبل از عمل را خواهید گرفت ودر زمان عمل داروهایی که شما را می خوابانند وشما هیچ دردی را حس نخواهید کرد.طول مدت عمل بسته به تعداد رگهای تعویضی و مدت بستری در بیمارستان بین 5-3 روز فرق می کند.

در زمان عمل

روز قبل از عمل در بیمارستان شما فرصتی برای ملاقات با عزیزانتان خواهید داشت که بهتر است این ملاقات به دونفرمحدود شود.آنها می توانند تا دم در اتاق عمل بیایند و بعد در مدتی که شما در اتاق عمل هستید در سالن انتظار منتظر بمانند.پرستار شما یک مسیر رگ از دست شما گرفته و به شما سرم وصل خواهد کرد.همزمان داروی آرام بخش به شما تزریق و با ماسک, اکسیژن استنشاق خواهید کرد.در موقع عمل و یا بلا فاصله قبل از عمل به شما سوند مثانه زده خواهد شد.اتاق عمل احتمالا سرد خواهد بود اگر خواستید می توانید از پتو استفاده کنید.به شما دارو تزریق می شود و در طول عمل شما به خواب خواهیدرفت وتا اتمام عمل بیدار نخواهید شد.سینه شما برش داده شده و با کمک ماشین قلب وریه مصنوعی عمل شما انجام می شود.برای پیوند عروق قلبی از رگهای دست ویا پای شما استفاده خواهد شد. در پایان سینه و پای شما بخیه زده خواهد شد.گاهی لازم می شود که از ضربان ساز قلببرای کنترل ضربان قلب استفاده شود در این صورت قبل از ترخیص آنرا از شما جدا خواهند کرد.شما احتمالا دو یا سه تیوپ روی سینه برای خارج کردن خون و هوای اضافی داخل سینه تان خواهید داشت که یک روز بعد از عمل آنها خارج خواهند شد.

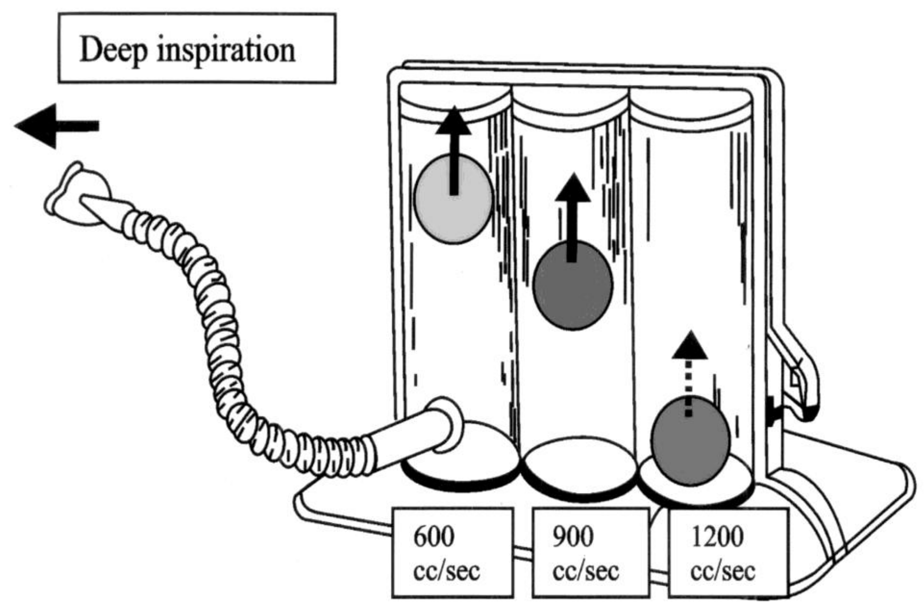
بعد از عمل جراحی

شما به بخش ویژه منتقل می شوید تا از نزدیک تحت مراقبت و کنترل قرار بگیرید.یک تا دو روز بعد به بخش جراحی قلب منتقل شده و پنج روز بعد به خانه می توانید بروید.اما بعضی از بیماران

که دچار عوارض بعد از عمل شده اند ممکن است برای چندین هفته تا چندین ماه در بیمارستان بمانند.

در مدت اقامت در بخش ویژه چه اتفاقی خواهد افتاد؟

در این بخش کنترل علائم حیاتی و پارامتر های دیگر مثل صدا های قلبی و عملکرد قلب کنترل خواهد شد.شما یک تیوب در نای خود برای تنفس خواهید داشت وپرستاران با تیوب دیگری ترشحات ریه و دهان شما را خارج خواهند کرد.به شما داروی آرام بخش خواهند داد به همین دلیل دردی حس نخواهید کرد.بعد از به هوش آمدن دستگاه تنفس مصنوعی را از شما جدا خواهند کرد وشما برای مدتی با ماسک اکسیژن تنفس خواهید کرد.و بعد از آن ماسک برداشته شده و شما بوسیله یک تیوب جلوبینی تان نفس خواهید کشید. اگر درد داشتید از پرستارتان کمک بخواهید.شما باید 10-20 بار در ساعت نفس عمیق و سرفه داشته باشید تا مایع در ریه های شما جمع نشود.شما باید نحوه استفاده از دستگاه اسپیرومتری تشویقی را یاد بگیرید تا بتوانید نفس عمیق کشیدن خود را تقویت کنید.



بعد ازعمل بزودی شما می توانید دوستان وخانواده تان را ببینید ونگران نباشید و مطمئن با شید که آنها در زمان نیاز به شما کمک خواهند کرد. روز بعد از عمل شما با کمک راه خواهید رفت.اگر از رگهای پاهای شما برای پیوند استفاده شده

است پاها را بالاتر از سطح قلب قرار دهید. از انداختن پاها روی هم خودداری کنید.
در بخش ویژه علاوه بر این کارها عکس برداری ازسینه,تستهای خون,انجام شده وبه علت کم خونی ناشی از عمل جراحی که طبیعی است احتمالا شما احساس خستگی خواهید کرد.یک الی دو روز بعداز عمل پانسمانهای روی زخم های شما برداشته خواهد شد.شما به آرامی باکمک شروع به راه رفتن خواهید کرد وورزشهایی که بعد از ترخیص انجام خواهید داد را آموزش خواهید دید.
بعد از عمل بای پس قلبی درد سینه شما باید تسکین یافته باشد به هرحال با گذشت زمان ممکن است رگهای دیگر ویا رگ پیوند شده گرفته شود که در این صورت به عمل جراحی بای پس دیگر و یا آنژیو پلاستی نیاز می باشد.عمل جراحی بای پس قلبی بیماری عروق قلبی را درمان نمی کند.اما شما باید سعی کنید بیشترین تاثیر مثبت را از عمل جراحی انجام شده خود بگیرید شیوه زندگی سالمی را داشته باشید و داروهایی را که باید مصرف کنید خوب بشناسید.شما همچنین باید از برنامه ویزیت پیگیر توسط پزشک خود آگاهی پیدا کنید.

3.چیزهایی که بعد از برگشتن به خانه باید انجام دهید و چیزهایی
که نباید انجام دهید

بعد از عمل چه چیزهایی از شما انتظار می رود؟

بعد از با موفقیت گذراندن عمل جراحی بیماران باید وضعیت سلامتی قبل از عمل و حتی بهتر از آن را بدست آورند.به شما دستورالعملهایی رابرای مراقبت از خودتان داده خواهد شد این مرحله بازتوانی شش الی هشت هفته طول خواهد کشید.مراقبتهای شخصی(شانه کردن موها,مسواک کردن دندانها,حمام کردن,لباس پوشیدن و خوردن و...). روزهای اول شما باکمک این کارها را انجام خواهید داد.

چه چیزهایی را باید مشاهده کنید؟

اگر زخم سینه شما قرمز,دردناک,گرم و ترشح دار بود در اولین فرصت به پزشک خودتان اطلاع دهید.

روزی دو بار صبح و عصر درجه حرارت بدن خود را اندازه بگیرید.اگر درجه حرارت بدن شما 38.3درجه سانتی گراد و بیشتر بود در اولین فرصت به پزشک خودتان اطلاع دهید.

کنترل وزن شما باید در اولین فرصت بعد از عمل انجام شود.درصورتی که افزایش وزن ناگهانی داشتید نشانگر احتباس مایعات در بدن شما است این مسئله می تواند منجر به اختلال در عملکرد قلب و نارسایی کلیه های شما شود.اگر در عرض یک الی دو روز 1/8 کیلو گرم به وزن شما اضافه شود یا در ناحیه زخم پای شما تورم ایجاد شد و تنفس شما کوتاه شد.در اولین فرصت به دکتر خود اطلاع دهید.

درکنترل وزن خود شما باید:

- در زمانی مشخص هر روز وزن خود را کنترل کنید
- گزارشی از وزن خودتان را در جدولی که در آخر این کتابچه داده شده است یادداشت کنید.
- موقع ملاقات با دکتر این گزارش را به او نشان دهید.

فعالیت در منزل

- خانمها باید از پوشش سینه تا شش الی هشت هفته استفاده کتند.
- از هرگونه پوشش سینه که در بیمارستان به شما داده می شود تا 6-8 هفته استفاده کنید.
- از رانندگی حد اقل تا 3-4 هفته بعد از عمل خودداری کنید و یا تا هر زمانی که دکترتان دستور دهد.
- شما می توانید در صندلی جلو ویا عقب ماشین بنشینید حتما کمر بند ایمنی را ببندید و سیستم ایر بگ را فعال کنید.

- برنامه راه رفتن در منزل داشته باشید,تا آنجا که می توانید فعالیت خودتان در منزل را افزایش دهید.

مراقبت از خود برای بهبودی

مسئولیتهای شما برای بهبودی بعد از عمل جراحی بای پس قلب چیست؟

شما مسئولیتهای متعددی در طول مدت دوران بازیابی سلامت بعد از عمل دارید که شامل:

- مراقبت از زخم
- مصرف دارو(لیستی از داروهایی که باید در منزل مصرف کنید تهیه کنید این داروها با داروهایی که قبل از عمل مصرف می کردید فرق می کنند انها را خوب یاد بگیرید).
- **اطلاعات ارتباطات:** لیستی از اسامی و شماره تلفن پزشک معالج,مرکز اورژانس و تقویمی از زمانهای ملاقات با دکتر خود را تهیه ودر جدولی بنویسید(به پیوست آخر کتابچه مراجعه کنید).
- بهبود سلامت قلب و ریه
- ایجاد تغییر در شیوه زندگی
- شما باید از توالت فرنگی با کمک استفاده کرده و رعایت نظافت و شستن دستها را فراموش نکنید.
- شما باید حد اقل 2-1هفته کسی را که در منزل پیش شما بماند داشته باشید.
- بهبودی هرکس در سرعتهای مختلف انجام می شود.اما پیگیری دستورات دکترتان شما را در رسیدن سریعتر به بهبودی کمک می کند.
- نحوه کنترل نبض خود را یاد بگیرید وآنرا هر روز کنترل کنید.
- ورزشهای تنفسی رادر بیمارستان آموزش خواهند داد.تا 6-4 هفته بعد از ترخیص انها را انجام دهید.
- هر روز دوش بگیرید.ناحیه بخیه هارا به آرامی به وسیله آب و صابون بشویید, شنا نکنید,داخل وان آب داغ نروید و تا زمانی که ناحیه بخیه های شما خوب نشده حمام نکنید.
- از یک رژیم سالم قلبی پیروی کنید.

هدف از مراقبت در منزل کاهش فاکتورهایی که باعث بیماریهای قلبی می شوند,کمک به بیماروخانواده اش در ترک سیگار,کنترل فشار خون,بهبود سطح کلسترول,شروع به ورزش کردن منظم و کاهش استرس است.بدیهی است تغییر شیوه زندگی به تنهایی کافی نیست و باید حتما دارو دریافت کنید.قبل از ترک بیمارستان آنچه باید انجام دهید را خوب یاد بگیرید.تمام سوالات خود را بپرسید.پیگیری بعد از ترخیص از ایجاد عوارض بعدی که می تواند بسیار خطرناک باشد می کاهد.

مراقبت از دهان

بهداشت دهان و دندان اگرچه دندان مصنوعی داشته باشید بسیار مهم است.در هنگام درمان بعضی از دندانها ممکن است باکتری ها وارد خون شما شده وباعث عفونت در دریچه هاوبافت قلب شود.تا شش ماه بعد از عمل استفاده از آنتی بیوتیک در هنگام انجام عملهای دندانی لازم است.درهر موردی که نیاز به عملهای دندانی داشته باشید با پزشک معالج خود صحبت کنید.

دوش گرفتن

تازمانی که زخم سینه شما خوب نشده باید هر روز دوش بگیرید اما هر بار آب دوش به پشت شما بریزد و آب مستقیم روی سینه و زخم شما نباید ریخته شود.دوش گرفتن شما نباید طولانی شده ونباید از آب داغ استفاده کنید.نباید در آب وان قرار گرفته,وان آب داغ و یا سونا تا 30 روز بعد ازعمل ویا تا بهبود کامل زخمها ممنوع است.روی زخم را با صابون به آرامی شسته و با یک پد(حوله نرم) خشک کنید.و هرگز روی ناحیه زخمها از لوسیون,کرم ویا اسپری خوشبوکننده استفاده نکنید.موقع دوش گرفتن از آب وزیاد داغ و زیاد سرد استفاده نکنید.در حمام اگر سرتان گیج رفت و یا احساس ضعف یا خستگی کردید روی صندلی نشسته و با کمک دوش بگیرید.

چیز هایی که شش هفته اول نباید انجام دهید:

1. بیش از 3/7 کیلوگرم را تا دو ماه بعد از عمل بلند نکنید. بلند کردن هرچیزی باعث ناراحتی در سینه شما خواهد شد.
2. در حالی که داروی مخدر می گیرید تا 4-6 هفته رانندگی نکنید.در صورت رانندگی در صندلی عقب نشسته و کمر بند ایمنی را ببندید.

3. خارج از منزل دوچرخه سواری نکنید.
4. از حرکت دستها به صورت کششی مثل جارو کردن و راه رفتن روی چمن خودداری شود.
5. هر حرکت دست که ایجاد درد در ناحیه بخیه می کند را متوقف کنیدو دیگر تکرار نکنید.
6. شانه ها را بیش از 90 درجه خم وراست نکنید.
7. موقع بالا رفتن از پله ها و بلند شدن از روی صندلی به دستهای خود زیاد فشار نیاورید.
8. موقع سرفه و عطسه حتمااز سینه بند استفاده کنید تا دو هفته بعد از رفتن به خانه استفاده از سینه بند حیاتی است.

4.چه زمانی دکتر را خبر کنیم,چه دارو هایی بگیریم و چه چیز هایی را پیگیری کنیم؟

به دکتر تان اطلاع بدهید اگر:

1. از محل عمل شما ترشح بیرون بیاید ویا خونریزی کند
2. اگر در ناحیه زخم پا و سینه بخیه ها باز شود,تورم داشته,قرمز شده ودرد ناک گردد
3. درد شدید محل عمل,درد سینه(آنژین) ویا تنفس مشکل شود
4. درد قفسه سینه وتنگی نفس که با استراحت رفع نشود
5. نبض شما غیر عادی شود یعنی تعداد آن به کمتر از شصت ویا از صد ضربه در دقیقه بیشتر شود
6. ضربان قلب سریع ویا نامنظم داشته باشید
7. تب بالای 38/3درجه سانتی گراد و یا لرز ایجاد شود
8. اگر سرگیجه,لرز ویا غش و افتادن ناگهانی و همچنین اگر احساس خستگی داشته باشید
9. سردرد شدیدی که رفع نشود
10. سرفه های مقاومی که رفع نشود
11. وجود موکوس زرد,خونی و سبز رنگی که با سرفه خارج شوند
12. اگر در مصرف داروهای قلبی خود مشکل داشتید
13. اگر افزایش وزن دردو روز متوالی هر روز بیش از 0/9 کیلو گرم باشد و یا 1/5 کیلو گرم و یا بیشتر درعرض 3-2 روز
14. تغییرات در زخم شما شامل: قرمزی,تورم و یا خارج شدن ترشح از زخم داشتید
15. اگر لرز و یا تب بالای 38/3 درجه سا نتی گراد داشتید

16. هر بار که پیش دکتر می روید تمام مدارک خود را با خود همراه ببرید

شما لازم دارید تا بدانید:

1. اسم داروها ی تجویز شده به شما و مقدار مصرف آنها را خوب یاد بگیرید
2. چه مقدار از دارو باید خورده شود
3. در چه زمانهایی دارو باید مصرف شود
4. چه عوارض جانبی احتمالا با مصرف داروهای شما ممکن است در شما ایجاد گردد
5. هیچ دارویی را بدون نسخه دکتر حتی ویتامینها, ترکیبات گیاهی را به علت احتمال تاثیر بد روی اثرات داروهای مصرفی شما مصرف نکنید

شما نیاز دارید تا موارد زیر را پیگیری کنید:

1. مصرف تمام داروهایتان را در زمانی منظم انجام دهید
2. برگه گزارش داروهای مصرفی خود را در هر بار ویزیت دکتر همراه ببرید
3. قبل از اینکه داروهای شما تمام شود حتما ذخیره داشته باشید
4. در مواقع رفتن به مسافرت حتما به اندازه کافی دارو همراه ببرید
5. دارو های خود را دور از دسترس کودکان,رطوبت و گرما دور نگهداشته و در بطری های رنگی نگهدارید
6. از کم کردن ویا مصرف نکردن و یا زیاد مصرف کردن داروها بدون اطلاع پزشک خودداری کنید
7. اگر مصرف یک وعده داروهایتان فراموش شد حتما در مورد ادامه مصرف با دکترتان مشورت کنید
8. هر داروی بدون نسخه را قبل از مصرف به دکترتان معرفی کنید
9. دارو را فقط با آب بخورید
10. دکتر شما برای شما ممکن است از داروهای ضد انعقاد مثل آسپرین تجویز کند برای اینکه رگهای شما را باز کند.
11. اگر برای شما رقیق کننده خون مثل وارفارین(کومادین) تجویز شده باید از تستهای خون بیشتری استفاده کنید.تا مقدار مصرف این دارو درست محاسبه شود.

*** توجه:اگر وارفارین مصرف می کنید برای پیشگیری از خونریزی باید مراحل زیر را انجام دهید:**

1. از تستهای معمول خون استفاده کنید

2. **از افتادن و صدمه به بدنتان پیشگیری کنید**
3. **از رژیم غذایی ثابت وغذاهای حاوی ویتامین Kپیروی کنید**
4. **مصرف هر دارو یا ماده غذایی ویتامین دار را به دکترتان اطلاع دهید**
5. **اگر فشار خون بالا ویا زخم معده و دوازدهه دارید,درمدفوع شما خون وجود داشت,خونریزی از بینی داشتید,ادم ودرد درشکم داشته ودر ادرار شما خون دیده شد,یبوست شدید,سرفه با خلط خونی,سرگیجه,سر درد مداوم,درد مفاصل سفتی و تورم در اندامها از مصرف آن خودداری کنید و سریع به دکتر اطلاع دهید.هر شش ماه خون و مدفوع خود را برای ازمایش بفرستید**
6. **درمان برای پایین آوردن چربی خون در تمامی بیماران با جراحی قلب باز انجام می شود.این درمان قبل و بعد از عمل از پیشرفت آترواسکلرز جلوگیری می کند (مثل داروی آترواستاتین).**

عملکرد فوری:

شما می توانید با انجام مراحل زیر به کاهش خطرات ناشی از لخته خون جلوگیری کنید.

1) بیماری دیابت و بیماری قلبی خود را درمان کنید
2) سیگارکشیدن را ترک کنید
3) وزنتان را کم کنید
4) در همه حال فعال باشید

چه موقع باید بطور ارژانس عمل کنید:

درموارد زیر با شماره 115 اورژانس ارومیه ویا ارژانس شهرستانهای خود تماس بگیرید

1. اگر بطور ناگهانی دچاردرد سینه شدید ویا دیگر علائم حمله قلبی,احساس پری,فشار ناراحت کننده و درد در مرکز قفسه سینه شما ایجاد گردد که بیش از چند دقیقه طول بکشد از بین می رود و دوباره برمی گردد
2. احساس درد یا ناراحتی در یکیا هردو دست,پشت,گردن,فک یا شکم که با افزایش خستگی و تنگی نفس همراه است.
3. کوتاه شدن تنفس با ویا بدون ناراحتی سینه
4. علائم دیگری مثل عرق سرد, حالت تهوع و سبکی سر
5. بی حسی ناگهانی ویا ضعف صورت,دست یا پا,بخصوص در یک طرف بدن
6. کاهش هوشیاری ناگهانی,مشکل در صحبت کردن ودرک
7. اشکال ناگهانی در دید یک ویا هر دو چشم

8. اشکال ناگهانی در راه رفتن,سرگیجه,از دست دادن تعادل یا هماهنگی
9. سردرد شدید ناگهانی بدون دلیل مشخص
10. کم شدن ادرار,زیاد شدن غیر عادی ادرار,سوزش ادرار و هر گونه مشکل در سیستم ادراری

5.علائم و نشانه های عوارض بعد از عمل

فاکتورهایی که علل عوارض بعد از عمل هستند(این فاکتورها از فردی به فرد دیگر متفاوت است) و شامل:

سن و جنس

عمل جراحی دیگری علاوه بر عمل بای پس قلبی همزمان داشته باشید

داشتن بیماری دیابت, مشکل ریوی,آسیب کلیوی و یا هر گونه مشکلی که خونرسانی به مغز ویا پاهای شما را ایجاد کند

میزان ضروری بودن عمل, زیادی وزن شما و سیگار کشیدن

عوارض معمول بعد از عمل

این عوارض شامل:

1. بی اشتهایی به مدت 2-4 هفته
2. داشتن درد در اطراف ناحیه بخیه ها,داشتن درد عضلانی و یا درد پشت
3. وجود تورم در عروق پیوندی که منجر به رد پیوند می شود
4. احساس خارش,بی حسی,سوزن سوزن شدن در اطراف محل عمل در سینه و پاها تا 6 ماه یا بیشتر
5. احساس خستگی و داشتن مشکل خواب شبانه
6. داشتن یبوست بدلیل داروهای ضد درد
7. مشکل در حافظه کوتاه مدت و یا احساس گیجی
8. خسته بودن ونداشتن انرژی
9. داشتن تنفس کوتاه, بعضی از بیماران با مشکل تنفسی ممکن است وقتی از بیمارستان به خانه مرخص شوند اکسیژن استفاده کنند
10. احساس ضعف در دستها برای ماه اول
11. عوارض ناشی از عملCABG ,4-6 هفته بعد از عمل ناپدید می شوند.بهبودی کامل ممکن است تا چند ماه یا بیشتربسته به سلامت کلی بیمارطول بکشد.

عوارض بعد از عمل CABG چیست؟

همه عملها عوارض دارند.عوارض ناشی از عمل بای پس قلبی شامل:

آریتمی(بی نظمی در ضربان قلب),سکته مغزی,عفونت(درزخم پا,دست,سینه که 14 روز بعد از عمل دیده شود),خونریزی(ناشی از درمانهای ضد انعقادی),نارسایی قلب,مشکل تنفسی,لخته های خونی و صدمات مغزی ویا سکته مغزی.عوارض عصبی(سکته قلبی,هذیان بعد از عمل,تغییرات شناختی کوتاه مدت و بلند مدت و افسردگی.نارسایی کلیه (در 5-10 درصد از بیماران بعد از عمل CABGکاهش درعملکرد کلیه ها دیده می شود).نتایج طولانی مدت(آنژین بعد از جراحی قلب ممکن است تا 5 سال بعد از عمل دیده شود).

دلایل عود مجدد آنژین:

- ایجاد تنگی در عروق پیوند شده
- پیشرفت بیماری در عروق پیوندی وغیر پیوندی

6.برای ایجاد احساس عاطفی بیشتر و خوب بودن بعد از عمل چه باید بکنیم؟

بعد از رفتن به خانه شما برایتحمل درد ناشی از برش جراحی نیاز به دریافت مسکن خواهید داشت. این طبیعی است که خلق وخوی شما بعد از عمل کمی پایین بیاید.شما ممکن است روزهای خوب وبدی را توصیف کنید.اما خاطرنشان می کنم که دوره بهبود ی شما روزها وماهها طول می کشد.در 3-6 هفته اول شما احساس خستگی خواهید کرد.بعد از شش هفته بعد از عمل شما باید قادر باشید تا کارهای روزمره خود را انجام دهید.تا سه ماه بعد از عمل شما سلامتی کامل خود را بدست می آورید.

خواب

بسیار مهم است که خواب کافی داشته باشید تا احساس خستگی و تحریک پذیری نداشته باشید.متاسفانه بیشتر بیماران از مشکلات خواب تا مدتها بعد از عمل شکایت می کنند.الگوی خواب نرمال تا چند ماه بعد از عمل برمی گردد.اگر کمبود خواب باعث تغییر در رفتار شما شود و یا اگر الگوی خواب نرمال به شما بر نگردد با دکتر خود مشورت کنید.ماساژدرمانی روشی موثر در درمان بیخوابی بیماران بعد از عملهای بای پس قلبی است چون باعث کاهش خستگی وبهبود خواب می شود.شما می توانید آنرا بسیار آهسته و مداوم انجام دهید.برنامه چرت روزانه تا برگشتن قدرت بدنی تان داشته باشید.شما ممکن است

ترجیح دهید هر طور که به ناحیه بخیه های شما فشار نیاورد ویا راحت هستید بخوابید اگرچه روی صندلی باشد.اختلال خواب تا چند روز ادامه خواهد داشت.مصرف قرص خواب آور قبل از خواب میتواند به خواب شما کمک کند.

اگر مشکل خواب داشتید چه کار باید بکنید؟

اگر مشکل خواب داشتید به نکات زیر توجه کنید:

1. برنامه خواب منظم داشته باشید وهر روز در زمانی مشخص به خواب رفته ودر زمانی مشخص از خواب بیدار شوید.
2. از راحت بودن بستر و محیط اطراف خود مطمئن شوید,با استفاده از بالشها وضعیتی مناسب برای خود ایجاد کنید.
3. اتاق خواب خود را ساکت و آرام نگهدارید.
4. از بستر خود فقط برای خواب استفاده کنید و از آن برای کار و یا نگاه کردن تلوبزیون استفاده نکنید.
5. مدت خواب روزانه شما نباید زیاد باشد.درطول مدت زمان بهبودی بین کاروخواب شما باید تعادل وجود داشته باشد.
6. اگر شما عصبی و مضطرب هستید,با همسر وشریک زندگی ویک دوست مورد اعتماد صحبت کنید.مشکلاتتان رادر ذهن خود خاموش کنید.
7. به یک موزیک آرام بخش گوش کنید.
8. قرص خواب آور مصرف نکنید ممکن است با داروهای دیگری که می گیرید تداخل کند. قبل از هر کار با دکتر خود در این مورد مشورت کنید.
9. اگر قبل از خواب دیورتیک بگیرید نیازی به بیدار شدن در نیمه شب نیست.
10. اگر شما نمی توانید بخوابید,بلند شوید و کارهایی انجام دهید تا شما را آرام کندتا احساس خستگی شما رفع شود.

11. در رختخواب نگران قرار نگیرید وقتی می خواهید بخوابید.
12. از مصرف کافئین دوری کنید.
13. **کار**

بهبودی شما تا 6-8 هفته طول می کشد,دکترتان درمورد اینکه چه موقعی می توانید شروع به کار کنید به شما خواهد گفت.اگر کار شما قابل انعطاف است می توانید کاری نیمه وقت را شروع کنید و بتدریج به کار عادی خود برگردید.

احساسات

احساس غصه وغم چند هفته بعد از عمل طبیعی است. اگر بیش از این ادامه پیدا کرد با دکتر خودتان مشورت کنید.

عملکرد ذهنی و جراحی قلب

بعضی از بیماران در طول مدت بهبودی از عمل جراحی قلب نا امید می شوند زیرا آنها اینطور احساس می کنند که این عمل آنطور که فکر می کردند نبوده است.این تغییرات منفی بعد از عمل طبیعی است.در طول جراحی کل بدن در استرس است بخصوص مغز بخاطر قطع عملکرد قلب و انجام آن بوسیله ماشین پمپاژ قلب و ریه.باید در این زمان صبر کنید و از نا امیدی بپرهیزید و خود را مشغول کار های استرسزا مثل امور مالی حد اقل تا یک هفته بعد از عمل نکنید.

بهبودی

بهبود کامل بعد از عمل جراحی بای پس قلب و عروق 2-3 ماه به طول می انجامد.شما می توانید بعد از 6-8 هفته رانندگی کنید.فعالیت جنسی را از هفته3-4 می توانید شروع کنید. اکثر افرادبا شغلهای بی تحرک میتوانندرچهار تا شش هفته بعد از عمل جراحی، افرادبامشاغلی که کار فیزیکی بیشتری(مانند کارگران ساختمانی ویاشغلهایی که نیازبه بلند کردن اجسام سنگین دارد)ممکن است مجبور باشندتادوازده هفته بعد از عمل سرکار خود نروند.

بازتوانی قلب وایجاد تغییر در شیوه زندگی

برای بازتوانی قلب شما چندین مرحله با شما قرار ملاقات خواهم گذاشت.هدف از این کار,بهبود عملکرد قلب,کاهش ضربان

قلب در حالت استراحت وورزش,کاهش خطرمرگ ومیر وعوارض ناشی از بیماری قلبی است.
برای حفظ سلامتی خود باید شیوه زندگی خود را تغییر دهید و فاکتور های خطر ساز را از زندگی خود حذف کنید.شما باید از زندگی خود مصرف سیگار, استرس ورژیم غذایی غیر سالم را دور کنید,وزن خود را کنترل,چربی خون,دیابت(کنترل بی وقفه قند خون,که با کاهش وزن,رعایت رژیم غذایی,ورزش و مصرف دارو های کاهنده فشار خون ایجاد می شود) وفشار خون خود را کنترل کنید, در رژیم غذایی خود تغییراتی را ایجاد کنید,داروهای خود را مرتب مصرف کنید,از نظر مشکلات روانی اجتماعی (در اغلب بیماران حالتهایی از افسردگی,اضطراب,انکار ایجا می شود که تمایل به تحرک وورزش را کم می کند,احساس خستگی وکاهش انرژی در بیمار ایجاد شده و کیفیت زندگی بیمار را پایین می آورد)واسترس (استرس زیاد در منزل,محیط کار,در موارد مالی,خطر حملات قلبی و سکته مغزی ودرد سینه را به دنبال دارد).درمانهای لازم را به عمل آورید و ویزیت پیگیر دکترتان را فراموش نکنید.اینها سلامت قلب شما را بهبود می بخشند. باید تلاش کنید گرفت عروق قلبی شما سالم بماند.در مورد تغییر شیوه زندگی به شما آموزش لازم داده خواهد شد.

تکنیکهای کاهش استرس

بطور طبیعی استرس قسمتی از زندگی است,اگر استرس درست مدیریت نشود باعث افزایش بیماری قلبی می شود.کنترل استرس بعد از عمل برای شما بسیار مهم است.

علائم فیزیکی استرس: سرگیجه، درد عمومی و درد(دندانهای آسیاب، گره فک ، سردرد)، سوء هاضمه، درد عضلانی، اختلال در خواب، تپش قلب ، صدا در گوش، عرق کف دست، خستگی جسمی، خستگی ذهنی، لرزش، افزایش وزن و یا از دست دادن آن، ناراحتی معده

علائم احساسی استرس:خشم، اضطراب، گریه، افسردگی، احساس ناتوانی، نوسانات خلقی مکرر،تحریک پذیری،تنهایی،تفکرمنفی، عصبانیت،غم و اندوه

علائم رفتاری استرس: توجه بیشتر به سفارشا ت دیگران,غذا خورد ن اجباری، نگرش انتقادی به دیگران،رفتارهای انفجاری، تغییر مکررشغل، عملیات ضربه، افزایش استفاده ازالکل یاموادمخدر، برداشت شخصی از روابط و شرایط اجتماعی

چطور با استرس کنار بیایم؟

تکنیهای زیادی برای مقابله با استرس وجود دارد که من بعضی از آنها را اشاره می کنم درصورت عدم موفقیت از یک متخصص کمک بگیرید

بعضی از تکنیکهای مقابله با استرس عبا رتند از:

1) خوردن و آشامیدن معقول:مصرف اضافه مواد غذایی تاثیر منفی روی سلامت قلب شمادارد

2) ثبات عاطفی:شما باید تحت تاثیر دیگران قرار نگرفته و درحالی که به عقاید دیگران احترام می گذاریددر اعتقاداتتان محکم باشید.وتحت تاثیر عواملی که سلامت شما را به خطر می اندازند قرار نگیرید.

3) سیگار نکشید:علاوه بر خطرات سیگار نیکوتین سیگار استرس را در شما افزایش خواهد داد.

4) ورزش کنید: ثابت شده است انجام ورزشهای ایروبیک به علت تولید آندورفینهادر ایجاد افکار مثبت واحساس بهتر در شما کمک می کند.

5) حفظ آرامش: هرروز آرامش خود را حفظ کنید.

6) قبول کردن مسئولیت: آنچه را در توان دارید قبول و آنچه را درتوان ندارید قبول نکنید

7) علل ایجاد کننده استرس را کاهش دهید:زندگی بسیاری از بیماران باخواسته هایی بسیار و کمبود های بسیاری توام است که ما آنها را انتخاب می کنیم.مهارت در مدیریت زمان شامل:درخوست کمک در زمان مناسب,تعیین الویتها در زندگی,قدم بزنید و برای خودتان وقت بگذارید.

8) ارزشهای خودتان را اهمیت داده و به زندگی خودتان فکرکنید:بیشتر اعمال شما به اعتقادات

شما بستگی دارد.احساس شما بهتر خواهد بود وقتی مشغول زندگی باشید.

9) در زندگی اهداف و انتظارات واقع بینانه ای داشته باشید.

10) تداعی احساسات خوب: زمانی که در احساسات و افکارتان غرق هستید احساسات خوب خود را به یاد آورید.

11) به اندازه کافی استراحت کنید:ذهن خود را استراحت دهید و سعی کنید ورزش نمایید.خواب کوتاه در وسط روز به این کار کمک می کند.

12) سعی کنید با دوستان و آشنایان خود ارتباط داشته و با آنها صحبت کنیدویا از یک روان شناس کمک بگیرید.

13) تمرینات ورزشی گروهی ترتیب دهید (مثلا در پارکها قرار بگذارید) این کار به شما کمک می کند تا بهتر با بیماری قلبی و استرسها زندگی بکنید,بهتر با هم ارتباط پیدا کنید,قدرت بدنی خود را حفظ کنید و از افکار منفی خود را دور کنید و با استرس مقابله کنید.

چطور می توانم یک نگرش مثبت داشته باشم؟

داشتن نگرش مثبت و اعتماد به نفس دفاع خوبی در مقابل استرس است.تلقین به خود که من می توانم وبپذیرید تغییرات ایجاد شده در زندگی تان را نگرش مثبت را در شما ایجاد خواهد کرد.برای این کار به نکات زیر توجه کنید:

1. آرامش خود را حفظ کنید:انچه را درحال انجام آن هستید متوقف کنید,نفس عمیق بکشید,در انتخاب های خود عجله نکنید
2. همیشه به خود بگویید که در این وضعیت می توانید

3. سعی کنید در زندگی خود هدف داشته باشید,واقع بین بوده وقابل انعطاف باشید
4. در مواجه با مسائل زندگی عملی ترین راه حل را انتخاب کنید
5. در مورد نتایج کار فکر کنید:از خودتان بپرسید بهترین نتیجه ممکن چه می تواند باشد
6. به خودتان بگویید که شما در هر وضعیتی می توانید یاد بگیرید

چطور می توانم استرسم را کم کنم؟

پیشنهاداتی برای کاهش استرس:

1. ابتدا عوامل ایجاد کننده استرس در خودتان را شناسایی کنید
2. استرسهای جزئی را رفع کنید. اگر ترافیک استرس زا است از مسیر دیگری بروید
3. سعی کنید قبل از ایجاد تغییراز زندگی خود لذت ببرید
4. برای وقت خودتان برنامه ریزی کنید وبرنامه های واقع بینانه وانعطاف پذیر داشته باشید
5. در یک زمان تنها یک کار را انجام دهید
6. در موقع ایجاد استرس آنراکنترل کنید
7. اگر قادر به کنارآمدن با استرس نیستید از دیگران کمک بخواهید

چطور می توانم یاد بگیرم که آرام باشم؟

برای داشتن آرامش نیاز به مهارت دارید,آرامش بیشتر به صورت نشستن و ساکت بودن یعنی آرامش بدن و ذهن و رفع نیازهای اساسی بدن است.

نفس عمیق بکشید: فکر خود را به ناف خود متمرکز کنید وبا نفس عمیق به آرامی شکم خود را پر وخالی کنید.شما باید احساس آرامش زیادی بکنید.

عضلات خود را شل کنید: فکر خود را به قسمتهای مختلف بدن خود متمرکز کرده وبتدریج در حالی که نفس عمیق می کشید عضلات بدن خود را شل کنید.به آرامی بازدم کرده و دوباره این کار را انجام دهید.هر حرکتی که باعث درد می شود ترک کنید.شانه های خود را به آرامی جلو وعقب حرکت دهید.به آرامی دم و بازدم انجام دهید. حالا باید احساس آرامش بیشتری داشته باشید.

آرام سازی تصویر ذهنی: در این روش سعی می کنیم هماهنگی بین ذهن و بدن ایجاد شود.تصاویر صلح آمیزی در ذهن خود ایجاد کنید.درمورد خودتان مثبت صحبت کنید وافکار منفی را دور بریزید.شما می توانید با افکار و احساسات خود مقابله کنید.

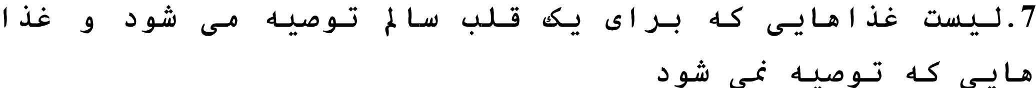
آرامش بوسیله موسیقی: موسیقی مورد علاقه خود را انتخاب کرده و به آن گوش کنید در حال گوش کردن به آن به ریتم آن فکر کرده وفکر خود را از موارد استرس زا دور کنید.

کنترل علائم حیاتی (تب,نبض,درجه حرارت و فشار خون) می تواند در احساس آرامش به شما کمک کند.در این روش هدف متوجه کردن افکار به سمت بدن فرد است تا از تنشهای عصبی ودرد فیزیکی دور شود.

تکنیکهای آرام سازی را هر روز به مدت 30 دقیقه انجام دهید.این کار شما را برای مواجه شدن با چالشهای زندگی آماده تر خواهد کرد.

چطور با خوردن می توانم با استرس مبارزه کنم؟

بدن شما زمانی که رژیم غذایی متعادلی داشته باشید بهتر می تواند با استرس مقابله کند.خوردن روزانه انواع غذاهای مختلف ومتنوع ازجمله گوشت بدون چربی، ماهی یا مرغ، نان و یاغلات کامل غنی شده، حبوبات،میوه ها وسبزیجات ومحصولات لبنی کم چرب می باشد.



7.لیست غذاهایی که برای یک قلب سالم توصیه می شود و غذا هایی که توصیه نمی شود

شش ساعت بعد از خارج کردن لوله از مجرای تنفسی شما می توانید مایعات بخورید و بعد به تدریج رژیم نرم (آب میوه ,سوپ و....) وبعد از برگشتن به بخش جراحی شما می توانید رژیم معمولی کم نمک وکم چربی را استفاده کنید.تازمانی که در بیمارستان هستید مایعات خورده شده و دفع شده شما گزارش می شود.هنگام ترخیص شما در مورد آماده کردن غذای مناسب آموزش داده خواهید شد.

رژیم غذایی شما در خانه

تا دو هفته اول بعد از رفتن به خانه محدودیت رژیم غذایی وجود ندارد مگر اینکه دیابت داشته باشید.مطمئن باشید کالری و مواد مغذی کافی برای بهبودی به شما میرسد.بعد از دو هفته رژیم کم نمک و کم چربی باید رعایت شود مصرف نمک زیاد می تواند باعث جمع شدن آب در بدن و تورم شود.درصورت رعایت رژیم سالم قلبی احتمال انسداد مجدد رگهای خونی اکم می شود.

مواد معدنی و ویتامینی را هر روز مصرف کنید.

یبوست معمولا وجود دارد برای رفع آن:

مواد غذایی حاوی فیبر مثل سبزیجات و میوه مصرف کنید.آب 6-8 فنجان بنوشید مگر اینکه از آن منع شده باشید.هر روز یک لیوان آب ولرم ناشتا بنوشید.از گلاب و آب آلو استفاده کنید.تحرک خود را زیاد کنید.اگر این تدابیر موثر نشد طبق دستور پزشک دارو مصرف کنید.

بی اشتهایی معمولا در بیماران بعد از جراحی بای پس دیده می شود.بهتر است کم کم بخورید به تعداد دفعات بیشتر,بی اشتهایی شما بعد از هفته اوی باید رفع شود اگر رفع نشد به دکتر خود اطلاع دهید.

رژیم غذایی توصیه شده از طرف دکتر مظفریان در دانشگاه هاروارد به قرار زیر است.

1. روزی 4-5 وعده سبزی ومیوه (سبزی به صورت خام وپخته).
2. روزی 3 وعده از غلات تصفیه شده(ویا سبوس دار) استفاده شود(برای هضم بهتر).
3. روزی 2-3 وعده از محصولات لبنی کم ویا بدن چربی استفاده شود.
4. روزی 2-6 وعده از روغنهای گیاهی مصرف شود.
5. در هفته 2وعده و یا بیشتر ماهی مصرف شود(برای بهبود سریع تر زخمها).
6. 4-5 وعده در هفته از مغز ها ودانه ها استفاده شود.
7. از مصرف هر گونه روغن نباتی هیدروژنه خودداری کنید. خوردن کمتر از لیست فراورده های گوشتی,نوشیدنی های شیرین,شیرینی,فراورده هایی از مغز هاکه با غلات پخته شده اند.
8. شما هر روز می توانید 2 لیتر (10-8 لیوان) آب و یک لیتر مایعات(4-5)لیوان بخورید.

9. برای جلو گیری از تورم در بدن نوشیدنی های کربنات دار مصرف نکنید.
10. اگر فشار خون بالا دارید از رژیم کم نمک استفاده کنید.
11. اگر دیابت دارید از رژیم کم شکر استفاده کنید.
12. بعد از صرف شام حد اقل 4-3 ساعت بخوابید.
13. بعد از صرف هر وعده غذا هرگز کار سنگین نکنید.

توصیه های تغذیه برای داشتن قلبی سالم:

1. مصرف غذاهای چرب وآغشته به روغن را کاهش دهید.(محصولات حیوانی و غذا های حاوی روغن نباتی)
2. منابع کلسترول نظیرگوشت قرمز،جگر،مغز،زبان و.....را محدود کنید.
3. مصرف سبزیجات و میوه های پر فیبر نظیر سیب را افزایش دهید.
4. مصرف دانه های روغنی نظیر گردوبصورت چند عدد در روز مفید است.
5. سعی کنید از حبوبات و نانهای سبوسدار استفاده کنید.غذاهای حاوی حبوب و سبزیجات به کاهش چربی و کلسترول شما کمک میکنند.
6. تا حد امکان پوست میوه ها را جدا ننمایید.
7. بدانید غذاهایی که دراغلب رستورانها ومراکز تهیه غذاهای سرپایی سرو می شوند دارای چربی و کلسترول بسیار بالایی هستند.
8. در پخت غذاهای خانگی از حداقل روغن استفاده کنید
9. اگر دارای اضافه وزن هستید با داشتن یک برنامه اصولی آنرا کاهش دهید.
10. مصرف نمک و مواد شور را محدود کنید.
11. میزان چربی خون را کنترل کنید

12. مصرف روغن های‌مایع خصوصاً روغن زیتون وکانولادربرنامه غذایی میتواند مفید باشد.
13. ار مصرف روغن های جامد و موادی نظیر محصولات قنادی که در تهیه آنهاازاین روغن ها استفاده میشود بپرهیزید.
14. توجه داشته باشید مصرف بیش از حد هرگونه روغن میتواند باعث چاقی شود.
15. قبل از پخت چربیهای قابل رویت گوشت و مرغ را جدا نمایید.
16. مصرف ماهی بدلیل داشتن چربی مفبد امگا 3به صورت دو بار در هفته توصیه میشود.
17. مصرف میگو بدلیل داشتن مقداری کلسترول بصورت مداوم توصیه نمی شود.

چه غذاهایی را نباید خورد؟

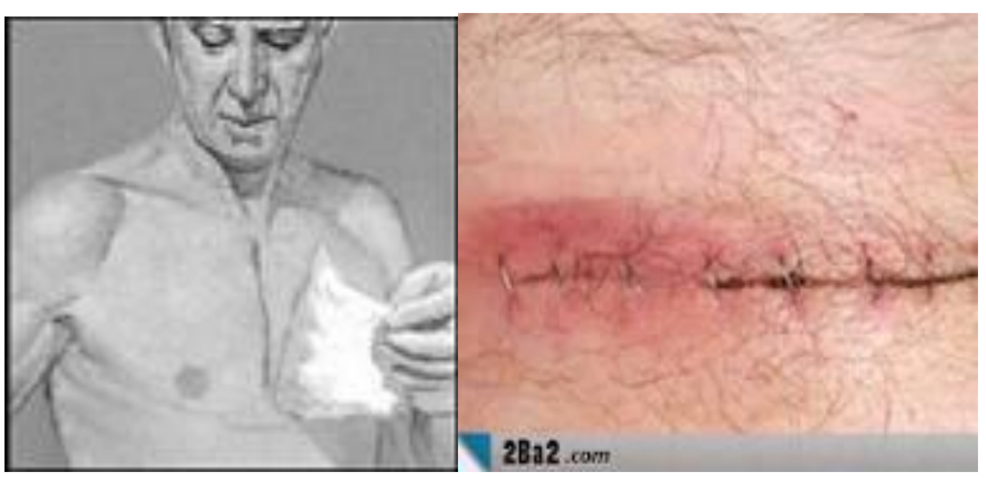
-غذاهای سرخ شده , بستنی,گوشت چرب,مرغ با پوست,به طور منظم پنیر, شیر با چربی بالای2درصد,کرم(خامه), انواع روغنها, کره,کوتاه, مارگارین(سفت), غذاهای پر چرب میان وعده,غذا های پخته شده درمغازه ها با چربی بالا,سوپ کرم, چاشنی های پر چرب مثل مایونز وانواع سس

مصرف امگا3 را افزایش دهید:

امگا3 درانواع ماهی(قزل آلا,تون,شاه ماهی و....),بذر کتان,روغن کانولا,روغن زیتون,روغن بادام زمینی,سویا,آجیل,گردو به وفور یافت می شود.

" تغییر در رژیم غذایی خود را به بتدریج انجام دهید "

8.مراقبت از زخم



یکی از جنبه های اصلی بهبودی شما مراقبت از زخم ناحیه سینه است در طول عمل جراحی در سینه شما برش ایجاد شده که ترمیم و بهبود این زخم بسیار مهم است.ترمیم این زخم بتدریج در عرض شش هفته انجام خواهد شد.بنا براین شما تا 4-6 هفته اول بعد از عمل برای اینکه زخمهای شمابهبودیابدنباید کار های سنگین انجام دهید.همچنین مراقبت از زخم و پوست اطراف ناحیه زخم دست و پاهای شما بسیار مهم است و باید به آنها توجه کنید تا بدون هرگونه عفونتی بهبود یابند.

قبل از ترک بیمارستان به شما در مورد مراقبت از ناحیه عمل آموزشهای لازمه داده خواهد شد.در این مورد مهم است که:

1. محلهای برش داده شده را تمیز و خشک نگهدارید
2. برای تمیز کردن ناحیه زخمها فقط از آب و صابون استفاده کنید
3. آب صابونی را روی دستتان ویا روی لیف حمام ریخته وبعد به نواحی بالا و پایین زخم بزنید,هرگز ناحیه زخم را مالش ندهید.روی زخم را با لیف از وجود دلمه ها پاک کنید وسطحی صاف ایجاد نمایید.مدت دوش گرفتن ویا حمام شما نباید از 10دقیقه بیشتر طول بکشد.درجه حرارت آب حمام باید ولرم بوده ونباید زیاد داغ ویا زیاد سرد باشد.درجه حرارت داغ می تواند باعث غش در شما شود.روزی یک بار دوش بگیرید.
4. از مصرف پماد,روغن و پانسمان روی ناحیه عمل بپرهیزید.بعد از دوش گرفتن روی زخمها را با بتادین ضد عفونی کنید.مگر اینکه دستور خاصی از طرف پزشک داده شده باشد.

5. ناحیه زخمها را هرروز بررسی کنید.
6. اگر ناحیه زخمها قرمز,دردناك ویا ترشح دارشد حتما به دکترتان اطلاع دهید.
7. رژیم غذایی خود را رعایت کنید تا بهبود زخم شما سریع تر انجام شود.
8. ناحیه زخمها برای جلوگیری از آفتاب سوختگی نبایدبیش از اندازه در معرض نور خورشید قرار گیرند.

دو فعالیتی که در صورت انجام آن ممکن است دو لبه اطراف زخم جناغ سینه شما را ازهم جدا کند نباید انجام دهید شامل:

1) بلند کردن اشیای سنگین تر از 2.3 کیلوگرم مثل بغل کردن و بلند کردن بچه کوچك وبلند کردن سبدو یاسطل زباله,باز کردن درب بطری و بلند کردن و نشستن سریع
2) رانندگی (حتی یك ضربه کوچك ناشی از تصادف می تواند سینه شما را به فرمان ماشین بکوبد که بسیار خطرناك است).

درمورد دست ویا پای شما:

زخم های دست و پای شما ممکن است درد ناك و متورم شوند این مسئله بدلیل برش ناحیه دست و پا و همچنین تجمع خون در اطراف ناحیه برش برای ترمیم رگهای از دست رفته است.

برای کمك به بهبود سریعتر و راحت تر,شما می توانید:

1. بازو ویا پای متورم خود را بالاتر از سطح بدن خود قرار دهید.
2. از پوششهای حمایتی مخصوص برای کم کردن ادم استفاده کنید(جوراب واریس).

اگر علائم زیر را دیدید حتما به دکتراطلاع دهید:

1. وجود درد شدید در اطراف زخم
2. وجود حساسیت در اطراف زخم
3. تورم در اطراف زخم
4. خروج ترشح وچرك از اطراف زخم (می تواند منجر به باز شدن زخم شود)
5. بالا رفتن درجه حرارت بدن تا 38 درجه سانتی گراد
6. قرمز شدن و گرما دراطراف ناحیه بخیه ها
7. اگر در ناحیه سینه احساس حرکت,بالا آمدن سینه,وصدا وجود داشت.

تسکین درد

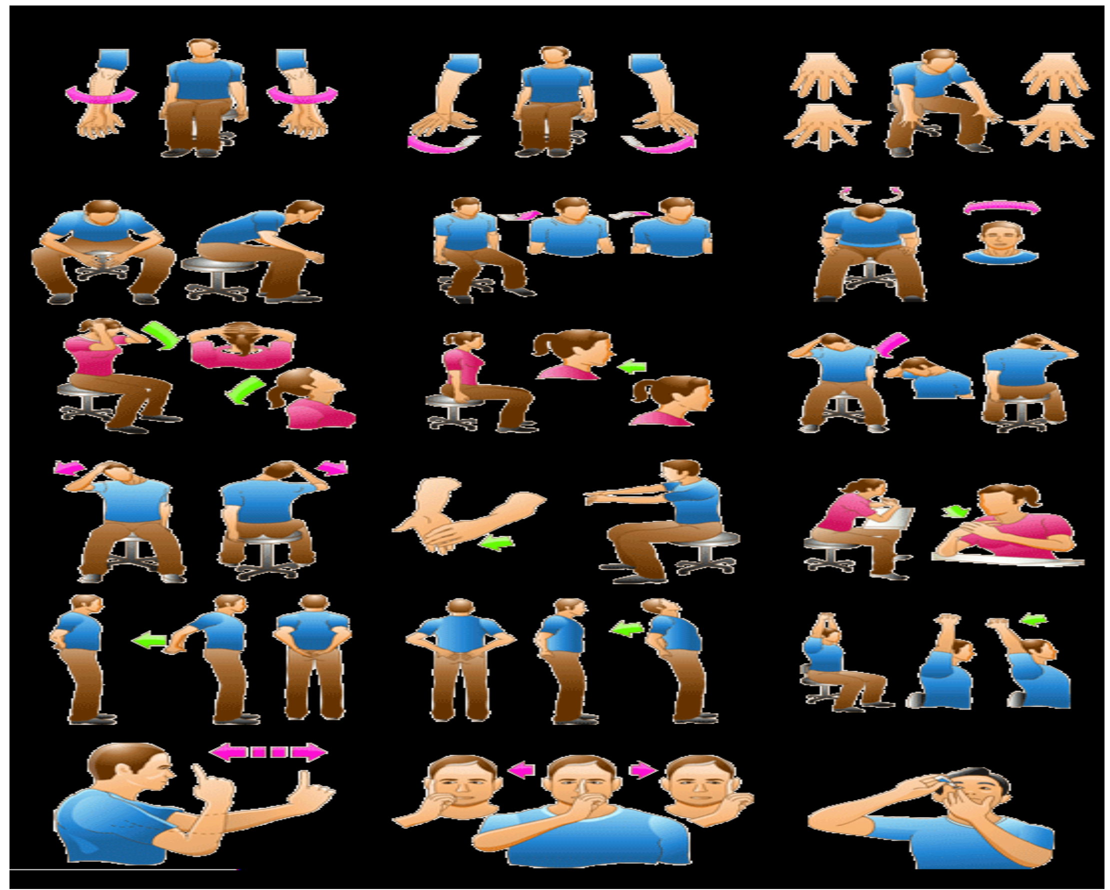
بعضی از عضلات اطراف ناحیه برش دچار ناراحتی شده, در مسیر برش خارش,تنگی ویا بیحسی دیده می شود که طبیعی است.دردی که شما حالا حس می کنید مثل قبل از عمل نیست. قبل از ترک بیمارستان برای تسکین دردتان مسکن تجویز خواهد شد.شما می توانید برای بهبود سریع تر درد های نا حیه برش جراحی قدم بزنید حتی اگر تورم پاهایتان زیاد است,فعالیت روزانه داشته باشید وزمانی را برای کم کردن ناراحتی و سفتی پاهایتان در روز در نظر بگیرید.

موقع ترخیص از بیمارستان محل برداشتن گرفت از پاهایتان کمی ادم خواهد داشت برای بهبود آن باید:

موقع دراز کشیدن روی تخت ویا نیمکت پاهای خود را بالاتر از سطح قلب خود قرار دهید.برای این کار از چند بالش استفاده کنید.و یا وقتی روی زمین دراز کشیده اید پاهای خود را روی نیمکت بلند کنید.این کار را سه بار در روز هر بار یک ساعت برای جلوگیری از تورم پاها انجام دهید.از **جوراب واریس** استفاده کنید.

توجه:هرگز پاهای خود را روی هم نیاندازید.

8.راه رفتن,ورزش کردن و انجام حرکت آهسته



فعالیت

1. در دوران بهبودی فعال بمانید ولی به آهستگی شروع به فعالیت کنید.
2. به مدت طولانی از ایستادن و نشستن در یک محل خودداری کنید.در صورت امکان به اطراف بچرخید.
3. پیاده روی ورزش خوبی برای قلب و ریه است.پیاده روی را آرام انجام دهید.
4. بالا رفتن از پله ها خوب است اما مراقب باشید.احتمالا حفظ تعادل برای شما مشکل خواهد بود.اگر لازم بود در میانه راه کمی استراحت کنید وبعد پله هارا بالا بروید.

5. کارهای مربوط به تنظیم نور خانه,تا کردن لباسها,راه رفتن و بالا رفتن از پله ها باید درست شود.
6. در سه ماه اول مقدار و شدت فعالیتهای خود را کم کم افزایش دهید.
7. وقتی هوا خیلی سرد و یا خیلی گرم است در بیرون خانه ورزش نکنید.
8. اگر دچار تنگی نفس,سرگیجه و یا هر گونه درد در سینه خود شدید ورزش و فعالیت را متوقف کنید.از فعالیتهایی مثل پارو زدن ووزنه برداری خودداری کنید.

برای 8-6 هفته اول:

1. بتدریج فعالیتهای خود را افزایش دهید.شما ممکن است فعالیتهای ساده خانگی مثل عوض کردن یک لامپ منزل را انجام دهید ولی فراموش نکنید هرگز بیش از 15 دقیقه در یک جا نایستید.
2. بیش از 8 کیلو گرم را بلند نکنید.همچنین اجسام سنگین را هل ندهید و یا به طرف خود نکشید.
3. حرکت دستها بالاتر از شانه ها مثل زمانی که سر خود را شانه زده ویا مسواک می زنید خوب است اما نباید مدت زیادی طول بکشد.
4. وقتی تازه به خانه رفته اید زیاداز پله ها بالا و پایین نروید.طوری برنامه ریزی کنید که صبح ها برای خوردن وفعالیت از پله پایین رفته و عصر ها برای خوابیدن از پله بالا بیایید.
5. فعالیت خودتان را زیر نظر بگیرید.هر موقع احساس خستگی کردید حتما استراحت کنید و کار نیمه تمام خود را در زمانی دیگر انجام دهید.
6. روزانه را بروید.برای این کار جدولی تنظیم و پیشرفت خود را درآن یادداشت کنید.

رانندگی

6-8 هفته بعد از عمل جراحی شما می توانید رانندگی کنید.تا این موقع به صورت یک مسافر سفر کنید.حرکت فرمان میتواند باعث کشیدگی ناحیه بخیه های شما شود.6-8 هفته بعد از عمل جراحی می توانید سرکار خود بروید(با دکتر خود مشورت کنید).تا 2-4 هفته بعد از عمل مسافرت نروید.

مسافرت

وقتی احساس بهبودی کامل کردید می توانید مسافرت کنید.

1) همیشه کمربند ایمنی را ببندید.
2) برای اینکه در رگهای شما لخته ایجاد نشود به مدت طولانی در یک جا ننشینید وهر یک ساعت به یک ساعت بلند شده وراه بروید.
3) اگربرای برگشتن به خانه از بیمارستان ازهواپیما استفاده می کنید.بهتر است از دم در هواپیما با صندلی چرخ دار به منزل بروید.وقتی از سیستم امنیتی فرودگاه رد می شوید بخیه های فلزی سینه شما ممکن است باعث حساسیت دستگاه شوند.

بعضی از انواع ورزشهای بعد از عمل

ورزش بایدگروه عضلاتبزرگ را دربرگیرد یکی از انواع ورزشها استفادهازورزشهای هوازیاست.پیادهروی، آهسته دویدن،دوچرخه سواری،قایقرانی،وبالا رفتن از پله، برخی از این نمونه هااست.این ورزشها باید 3-4 بار در هفته انجام شوند.در ابتدا 5-10 دقیقه فاز گرم کردن,حداقل فاز تهویه به مدت 20 دقیقه,فاز سرد کردن به مدت 10 دقیقه رعایت گردد. حذف مرحله سرد کردن میتواندخطر ابتلا به عوارض مربوط به قلب راافزایش دهد.شدت ورزش باتوجه به میزان ضربان قلب تعیین می شود.پیشرفت ورزش را باید به تدریج انجام داد.در ورزش کردن نظم داشته باشید و 2-3 ساعت قبل از خواب ورزش نکنید.

راهنمایی برای افزایش فعالیت ورزشی شما

1. هر روز چند قدم بردارید
2. قدمها را زیاد برندارید,اگر خسته شدید راه رفتن را متوقف کرده و استراحت کنید
3. کم کم فاصله ومقدار قدم زدن را افزایش دهید.
4. بدون کمک پیاده روی نگنید.
5. خودتان را روی نرده های پله ها نکشید و به دستهای خود و به زخمهای سینه فشار نیاورید.
6. در اول حرکت به خودتان زیاد فشار نیاورید.

بهبود عملکرد قلب و ریه

برای بهبود عملکرد قلب و ریه شمابه داشتن فعالیتهای فیزیکی زیاد احتیاج دارید.تا عملکرد قلب وریه شما به حالت عادی برگردد.این مسئله به بهبود بدن شما کمک خواهد کرد.

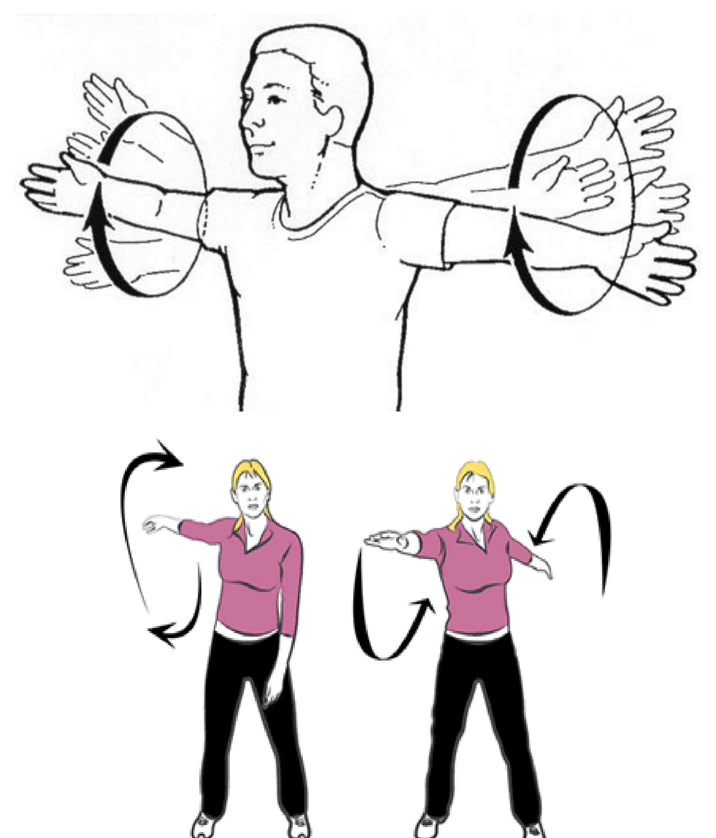
اگر ورزش نکنید در رگهای شما لخته ایجاد شده و می تواند باعث ایجاد درد وعوارضی مثل گرفتگی رگهای پیوندی شود. بهترین ورزش بعد از عمل جراحی بای پس فلبی قدم زدن است.قدم زدن ایمن وبرای همه انجام آن آسان است.راه رفتن می تواند درد پاهای شما را کاهش دهد.

ورزش دستها

3-2 ماه طول می کشد تا زخم جراحی بهبود یابد تا آنموقع باید دستها متحرك و قابل انعطاف با شند.ورزش زیر به شما کمك می کند تا به کشش دستها بدونآسیب به ناحیه زخم به تقویت تون عضلانی سینه, دستها و شانه ها بپردازید.این ورزش روزانه,2-1 ماه بعد از عمل شروع میشود.با روزی 5 بار شروع می شود و بعدتا 15 بار در روز توسعه می یابد.موقع ورزش کردن نفس کشیدن را فراموش نکرده و نفس خود را حبس نکنید.

چرخاندن بازوها

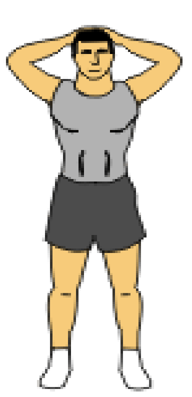
1. دستهایتان را روی شانه هایتان بگذارید.
2. دستها را در جهت حرکت عقربه های ساعت بچرخانید.
3. با یک چرخش کوچک شروع کنید.
4. دایره حرکت را بزرگتر و بزرگتر کنید.
5. حرکت را درجهت عکس تکرار کنید.

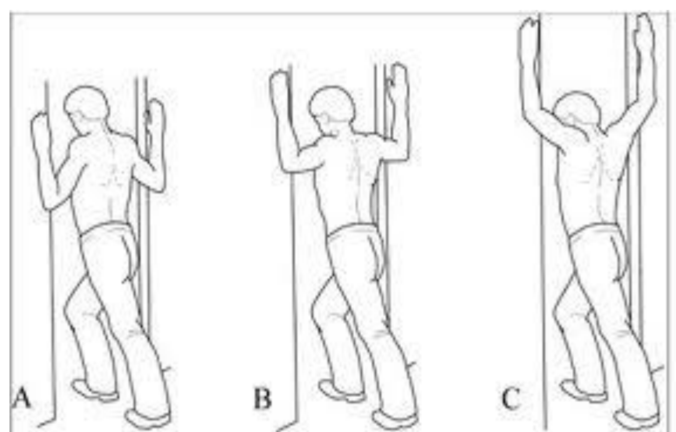


کشش قفسه سینه

1. با قرار دادن دستها جلوی سینه شروع کنید.
2. به آرامی دستها را تا جایی که درد نمی کند بالا ببرید.
3. در حالی که بازو هایتان را به جلو سینه خود می آوریدبازو ها را خم کنید.

4. بازو های خود را راست کنید و انها را به حالت اول برگردانید.
5. تکرار کنید.





این کشش هم در حالی که روی تخت خواب دراز کشیده اید و یا درحالی که روی صندلی نشسته اید و از آن گرفته اید مناسب است.

1. در جهت مخالف هم انجام دهید.
2. فشار زیادی به خود ندهید.
3. نباید هیچ دردی احساس کنید.

ورزشهای کشش سینه را تا 6 هفته بعد از عمل شروع نکنید.یکی از انواع آن شامل:

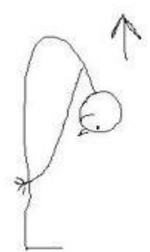
1) یک پا به جلو
2) 10-15 ثانیه نگهدارید و بعد با پای دیگردوباره تکرار کنید.
3) این ورزش مناسب است تا چند بار در روز انجام شود.

کشش بالای پشت

عضلات مثل یک قر قره عمل می کنند. و باید بین دو طرف عضلات تعادل برقرار باشد.وقتی یک طرف عضلات کشیده می شوند اگر این کشش طولانی شود عضلات طرف دیگر منقبض شده و تولید درد می کنند.

جلو گیری از اسپاسم زانوها

1. زانو با دست(با دست چپ زانوی راست را بگیرید).
2. سر تان را شل کنید و به آرامی بالا بکشیدو 10-15 ثانیه نگهدارید.
3. با دست و زانوی مخالف تکرار کنید.
4. 1-2 بار تکرار کنید.



موقع برگشتن به خانه دستورالعمل زیر را انجام دهید.

چه فعالیتی؟	راه رفتن روی سطح صاف واستفاده از دوچرخه ثابت وتردمیل
چه موقع؟	اکثر روزهای هفته (6-5 بار درهفته)
چه مدت؟	شروع کنید با........ دقیقه.افزایش دهید باپیاده روی ویا دوچرخه سواری ثابت 2 -1 دقیقه هر روز.هدف شما افزایش آن به 45-30 دقیقه در روز باشد
با چه شدتی؟	ضربان قلب خود را طبق آنچه در این کتابچه آموزش داده شده چک کنید

10.چه موقعی رابطه جنسی را از سر بگیریم وبیاییم برای پیگیری

- برای 8-6 هفته اول رابطه جنسی شما در وضعیتی که کمترین فشار را به سینه و زخمهای شما وارد شود انجام گردد.
- رابطه جنسی را زمانی که از نظر جسمی و روحی آرامش دارید انجام دهید.
- خیلی شفاف با شریک جنسی خود صحبت کنید.
- زمان آن رسیده که یک زندگی جنسی فعال داشته باشید.
- مراقب صداقت و عشق بهم دیگر باشید.

بزودی شما و همسر تان یک رابطه عاطفی و عاشقانه رضایتبخش خواهید داشت. بعضی از داروها ممکن است در احساس جنسی اختلال ایجاد کنند که باید حتما با دکتر خود مشورت کنید.

از سر گیری فعالیت جنسی

معمولا بهترین زمان از سرگیری فعالیت جنسی 4 هفته بعد از ترخیص از بیمارستان است.اما ممکن است هر موقع از عمل جراحی بهبود پیدا کردید آنرا شروع کنید.فاکتور های زیادی وجود دارد که می تواند شما را دلسرد کند.

1. ممکن است نگران عملکرد تان باشید.بطور صادقانه با همسرتان درمورد نگرانی و احساسهایتان صحبت کنید.
2. ممکن است بترسید که دچار آنژین و یا حمله قلبی بشوید.

چه موقع رابطه جنسی ایمن می توان داشت؟

زمانی که خیال بیمار راحت است می تواند رابطه جنسی ایمنی هم داشته باشد.در دو هفته اول بعد از حمله قلبی بدون عارضه بسیاری از افراد هنگام رابطه جنسی با عوارضی مثل فشار خون بالاو افزایش ضربان قلب و درد سینه مواجه

می شوند. اگر در هنگام رابطه جنسی دچار درد شدید 10 دقیقه استراحت کنید اگر درد شما رفع نشد به اورژانس مراجعه کنید.

مشکلات جنسی: مشکلات جنسی معمولا بعد از عمل بای پس قلبی وجود دارد طوری که در زن ومرد عدم رضایت جنسی ملاحظه می شود. افسردگی وترس از ایجاد یک حمله قلبی ویا مرگ. از آنجایی که حمله قلبی یک فعالیت فیزیکی است. گاهی برای تست تحمل بیمار برای رابطه جنسی, اورا تست ورزش می کنند.

در بسیاری از بیماران مرد که دچار اختلالات نعوظ هستند. می توانند از داروهایی که به این مسئله کمک می کند استفاده کنند. اما در صورت استفاده نکردن درست از آنها, عوارض این داروها می توانند حمله قلبی ایجاد کنند. متاسفانه این داروها در زنان مبتلا به مشکلات جنسی زیاد موثر نیستند وباید از روشهای دیگر استفاده شود.

11. چطور تب, نبض, فشارخون, تعداد تنفس خود را اندازه گیری کرده و گزارش نمایيم؟

علائم حیاتی (تب, نبض, فشار خون, تعداد تنفس) چیست؟

علائم حیاتی عملکرد اساسی بدن را شامل می شود وشامل اندازه گیری تب, نبض, تنفس و فشار خون بیمار است این کار در مراکز درمانی و در منزل قابل کنترل است. بهتر است کنترل علائم حیاتی صبح وعصر در ساعات مشخص انجام شود. ودر جدول گزارش آن که در آخر این جزوه اورده شده نوشته و در هر بار مراجعه به پزشک نشان داده شود.

چگونه تب را اندازه کیری می کنیم؟

عوامل مختلفی درجه حرارت بدن را تحت تاثیر قرار میدهند. مثل جنس, فعالیت بدنی, غذا و مایعات خورده شده, چه زمانی از روزباشد, در زنان بخصوص درمراحلی از دوران پريد. درجه حرارت طبیعی بدن در یک فرد بالغ سالم بین 37.2-36.5 در نوسان است. اندازه گیری درجه حرارت بدن با وسایلی مخصوص انجام می شود. یکی از این وسایل ترمومترجیوه ای است:

با این وسیله درجه حرارت بدن از سه روش گرفته می شود یکی از این روشها از طریق دهان است:

1. از قسمت شیشه ای ترمومتر گرفته وبا حرکات بالا و پایین جیوه آنرا به زیر قسمت مدرج انتقال دهید.
2. از تمیز بودن آن مطمئن شوید.
3. از نخوردن مایعات و غذای گرم بیمارتا ده دقیقه قبل مطمئن باشید.
4. قسمت جیوه ای را زیر زبان بیمار قرار داده تا 5 دقیقه دهان بیمار بسته بماند و بعد از دهان او در آورده و در حالی که از انتهای شیشه ای آن گرفته اید پشت به نور آنرا بخوانید.

توجه: اگر شیشه دماسنج شکست فوری آنرا در کیسه ای پلاستیکی قرار داده و به دور باندازید و دستهایتان را به خوبی بشویید جیوه شدیدا سمی و خطرناک است و نباید با دهان تماس داه شود.

اگر از نوع دیجیتالی استفاده می شود بعد از خارج کردن از دهان بیمار به راحتی درجه حرارت بیمار خوانده می شود.در نوع گوشی با قرار دادن سر دستگاه در مقابل گوش و فشار دادن دگمه آن دمای بدن بیمار مشخص می شود.

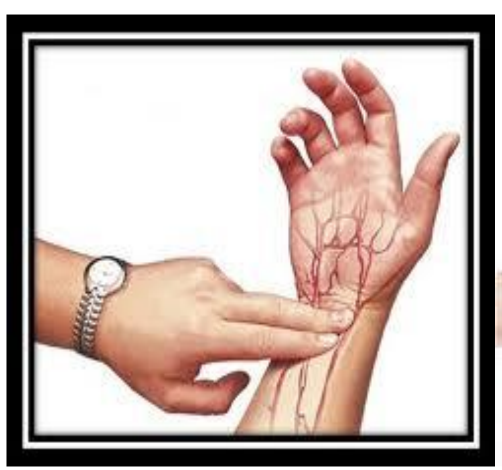
در نوع دما سنج های پوستی با تماسدادن نوار روی پوست بیمار دمای آن مشخص می شود.در روش زیر بغل ترمومتر را زیر بغل می گذاریم وتا 5-10 دقیقه زیر بغل نگه میداریم.و مثل روش دهانی آنرا می خوانیم. توجه داشته باشید در روش زیر

بغلی قبل از اندازه گیری دمای بدن زیر بغل را از عرق در صورت وجود پاک می کنیم, بهتر است قبل از حمام رفتن انجام شود.هنگام قرار گرفتن دماسنج زیر بغل دست بیما را روی سینه او بگذارید.

اندازه گیری نبض

برای این کار طبق تصویر زیرنوک سه انگشت وسط دست را در محل عبور شریان ازروی استخوان قرار داده و درحالی که به عقربه ثانیه شمار نگاه می کنید هر ضربه را که حس می کنید بشمارید تا یک دقیقه کامل و یا نیم دقیقه و در دو ضرب کنید و یا به اندازه ربع دقیقه ضر بان را شمرده و در عدد 4 ضرب کنید.

تعداد نرمال نبض بین 100- 60 ضربه در دقیقه است.اگر تعدادنبض از 100 بار در دقیقه بیشتر ویا از 60 بار در دقیقه کمتر شد به پزشک معالج خود اطلاع دهید.تعدادنبض تحت تاثیر بیماری,ورزش,ضربه و حرکت زیاد می شود تعداد ضربان قلب در زنان بیشتر از مردان است.نبض را می توان از کنار گردن,مچ دست,ویا مستقیم از روی فلب اندازه گرفت.



اندازه گیری تنفس

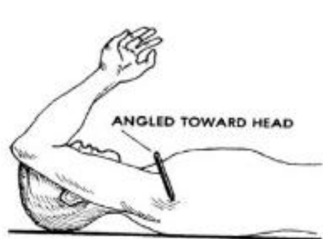
در حالی که مچ دست بیمار را در دست گرفته اید تعداد با لا و پایین رفتن سینه بیمار را بشمارید ومثل اندازه گیری تب بیمار آنرامحاسبه کنید.تعدادطبیعی تنفس 20-15 بار در دقیقه است. استرس,بیماری,تب می توانند تعداد تنفس راتغییر دهند.تعدادتنفس کمتر از 12 و بیشتر از 25 غیر طبیعی تلقی شده و باید به دکتر اطلاع داده شود.

اندازه گیری فشار خون

برای اندازه گیری فشار خون نیاز به دستگاه فشار سنج و گوشی پزشکی داریم.نوع دستگاههای دیجیتالی هم هستند که علاوه بر فشار خون نبض را هم تعیین می کنند.اگر فشارخون بالا باشد می تواند منجر به سکته مغزی و یا سکته قلبی شود.

- قبل از گرفتن فشار خون حد اقل 5 دقیقه هیچ صحبتی نکرده باشد
- در صندلی راحتی نشسته,تکیه داده و دست بیمار در روی یک تکیه گاه قرار گیرد.

فشار خون بیمار در حالت نشسته و دراز کشیده اندازه گیری می شود. برای این کار کاف فشار سنج را به اندازه دو سانتی متر بالا تر از مفصل آرنج بیمار قرار داده ارتفاع دست بیمار باید بالاتر از قلب باشد و بعد کاف را به دور بازوی بیمار ببندید طوری که یک انگشت زیر آن بتواند حرکت کندگوشی پزشکی را روی نبض بازو قرار داده وکاف را شروع به پمپ بکنید تا عدد 200 وبعد آرام هوای آنرا خالی کنید هرجا که ضربان قلب را شنیدید عدد را به خاطر بسپارید و در جایی که ضربان قطع شد و یا کم شد هم عدد را بخاطر بسپارید. عدد اولی فشار ماکزیمم و عدد دومی فشار مینیمم است.دقت کنید تا لوله های دستگاه پیچ نخورده باشند.فشار خون نرمال در افراد بالغ 120 میلی متر جیوه فشار ماکزیمم و80 میلی متر جیوه فشار می نیمم برای افراد بالغ است.اگر فشار ماکزیمم بیمار از 140 بیشتر بود و فشار می نیمم از 90 بیشتر شد حتما به دکتر اطلاع دهید (140/90) .



12.پوشیدن جوراب واریس

توجه:استفاده ازاین جورابها در افراد دیابتیک و سیگاری و افراد با فشار خون پایین بخصوص در مچ پاهاتوصیه نمی شود. چون جر یان خون را به پا ها کاهش می دهد و بیماری را بد تر می کند.

چطور این جوراب را بپوشیم؟

این جوراب را هر روز صبح پوشیده و شب و مواقع خواب از پا درآورید. این جوراب را تا یک ماه بعد از عمل بپوشید. این جوراب با ید حتما درست اندازه پاهای شما باشد اگر خیلی سفت باشد عوارض خطر ناکی دارد و اگر شل باشد اثر درمانی لازم را نخواهد داشت.صبح موقعی که از خواب بیدار می شوید در حالی که پا ی خود را 10 دقیقه بالا گرفته اید جوراب را به پا کنید بعد از رختخواب خود بلند شوید و فعالیت و حرکت خود را انجام دهید.

ضمیمه

جداول درمان و پیگیری‌بعد از عمل

جدول 1:کنترل وزن

تاریخ	ساعت صبح	ساعت عصر	تاریخ	ساعت صبح	ساعت عصر	تاریخ	ساعت صبح	ساعت عصر

جدول 3:داروها و عوارض جانبیناشیازاین داروها

ردیف	اسم دکتر	نوع دارو و مقدار آن	زمان و روش مصرف دارو	عوارض دیده شده

جدول 4:کنترل علائم حیاتی

ردیف	تاریخ	زمان	تب	نبض	تنفس	فشار خون	ملاحظات

جدول 5:گزارش زمان و مقدار مصرف داروها

اسم دارو	مقدار دارو	صبحانه	نهار	شام	زمان خواب	تاریخ

جدول6:چه وقت فعالیت را شروع کنم (قبل از شروع هر فعالیت با دکتر خود مشورت کنید)

شش هفته اول:		شش هفته بعدتر		سه ماه بعد
* کارهای سبک خانه (تمیز کردن گرد و غبار، آماده سازی میز ناهار خوری ، شستن ظروف، تا کردن لباس)		*فعالیتهای شش هفته اول را ادامه بدهید(می تواند شما را بیشتر راحت کند)		*فعالیتهای خود را ادامه بدهید(می تواند شما را بیشتر راحت کند)
* کار باغبانی سبک (کاشت محصولات کشاورزی، ویرایش گل و گیاه)		*اگر در جاهایی کار می کنید که نیازی به بلند کردن اشیای سنگینjob نیست با مشورت با دکتر تان می توانید سر کار خود بروید		*کارهای سنگین خانه(تمیز کردن جاها و پاک کردن شیشه ها,حمل کردن بچه بین دستها)
* دوخت و دوز و خواندن یک کتاب		* کارهای سنگین خانه(جارو برقی و ماشین لباس شویی رابکار بردن)		*کار های باغبانی سنگین(پارو کردن برف,شکستن زمین,با بیل کندن)
* پختن غذا		* کار سنگین باغبانی(زدن چمن,جمع کردن برگها)		*انجام دادن ورزش(فوتبال,تنیس,شنا,عکس گرفتن)
* از پله بالا و پایین رفتن		* اتوکردن		*دوچرخه سواری بلند کردن اجسام سنگین و هل دادن و کشیدن
* ایجاد مشاغل کوچک مکانیکی * خرید کردن * رفتن به		*مسافرت کردن * ماهی گیری,راندن قایق		*موتور سیکلت راندن

رستوران، سینما، چایخانه * مسافرت کردن به عنوان مسافر در ماشین بودن * پیاده روی, استفاده از کمر بند پیاده روی و استفاده از دوچرخه ثابت * به موها شامپوزدن		*ورزشهای سبک آئروبیک (وزن نیازی نیست)		
		* راندن ماشین کوچک یایک ون		