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HEART BYPASS SURGERY - a patient's guide

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When is coronary artery bypass surgery necessary?

The heart is a ball of muscle that pumps blood to the lungs and the rest of the body. The fuel for the work of the heart muscle is supplied by small blood vessels on the surface of the heart called coronary arteries. These coronary arteries often get narrowings forming within them and this can cause angina and heart attacks. (see other articles on this web site for reasons why this occurs to some people). Some patients are advised by their doctor/cardiologist to undergo coronary artery bypass surgery. This usually means that angioplasty (balloon dilatation) is not an option.

Coronary artery bypass surgery

This is an operation where blockages in narrowed coronary arteries are bypassed with new channels (similar to a detour around road works). These new channels are pieces of your own spare arteries and veins taken from various sites around your body (e.g. back of the breastbone, arm and leg).

The operation is performed through the breastbone and there is usually another cut on either the arm or the leg. The operation takes approximately 3-4 hours to perform and usually the patient spends one night in the intensive care. By the day after surgery you are usually able to sit out of bed and eat or drink small quantities. Your mobility is assisted and encouraged over the next several days until discharge from hospital.

By the time you go home you should be able to walk good distances around the ward, be able to shower and dress yourself and also be able to manage stairs. The average length of stay in hospital is around 6 days with a range from 3-4 up to 10-12 days. It is quite unusual to have to stay longer but it can happen.

When you get home you will take 6-12 weeks to get over the majority of inconveniences associated with surgery. The three most common problems during this time are fatigue, tenderness in the breast bone area and minor wound healing difficulties. If you have a sedentary job return to work will often be possible 6-10 weeks after surgery. If you perform heavy work then you should anticipate taking 12 weeks off work before being able to perform heavy tasks (this is because of healing of the breast bone). No patient should drive a car for 4 weeks following heart surgery.

Risks of surgery

Coronary artery bypass surgery is a very common and safe operation despite being major surgery. Various patient factors can modify the risk of this surgery (e.g. age, previous heart attacks, poor kidney function, previous heart surgery etc). It is important to discuss this on an individual basis with your cardiac surgeon to determine the overall risk of surgery. For a routine patient the risk to life is less than 2% and the risk of a significant stroke less than 2%.

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Most other complications are nuisance value problems that slow down recovery but usually do not usually leave a long-term effect. These are events such as bruising, bleeding, blood transfusion, wound healing difficulties, infections and heart rhythm disturbances.

Although this looks like a formidable list of potential problems the majority of patients pass through their hospital stay without significant inconveniences or discomfort.

Long term outlook

Most patients get a very good relief of symptoms. The tendency to develop further hardening and narrowing of vessels is not altered by the operation and attention to lifestyle factors is very important to help prolong the effectiveness of the operation. Losing weight, modifying diet, lowering cholesterol levels, stopping smoking and regularly exercising are all important things to do if not attended to already. Following surgery you will be advised to enroll in a cardiac rehabilitation class. These are very helpful in educating yourself about your heart and how to protect it from damage.

The majority of patients get at least 10 years free of heart symptoms following surgery but there is a wide range of results, and your doctor will be able to advise you of your likely outcome.

Future trends

Much research is being done to try to prevent heart disease getting to a point where surgery becomes necessary. Efforts to minimise the trauma of surgery are being explored. It is likely that this problem will be common for some decades to come but the good thing about heart disease is that much of it is treatable and patients are able to return to a good quality of life.