



KAISER PERMANENTE®

Coronary Artery Bypass Grafts

There are two primary blood vessels that supply blood and oxygen to the heart. These are called the coronary arteries. When a coronary artery becomes restricted because of blockage there is serious concern. (These sorts of blockages are usually caused by fatty deposits such as cholesterol.) Without enough oxygen, the heart muscle can die, and a heart attack is the result. Therefore, doctors must find another way to get blood—and the vital oxygen it carries—around the blockage to the heart muscle. A coronary artery bypass is often performed in this case.

In this procedure, another blood vessel is used to replace the function of the obstructed coronary artery. When possible, the internal thoracic artery is used. This is an artery that runs behind the breastbone. A vein from the leg is also commonly used as an adequate substitute for the coronary artery. The selected substitute is then "grafted" in place, taking on the role of the diseased coronary artery—thus the name, coronary artery bypass graft.

Patients with angina, or patients who have recovered from a heart attack with no continuing symptoms, are usually treated with medications rather than with bypass surgery or another operation. However, when patients don't respond to medical treatment or when blockage of the coronary arteries is severe, a bypass operation may be appropriate.

Before the procedure, the patient is put to sleep under a general anesthetic. During part of the operation, the functions of the heart and lungs are taken over by a heart-lung machine. Coronary bypass operations usually take two or more hours, depending on how much work is required.

Though bypass operations are done frequently, as with any operation, there are risks. Your doctor will tell you if you are at risk for any particular complications. Don't hesitate to ask your physician if you have questions or concerns about your risks.

Coronary artery bypass surgery usually improves blood flow to the heart. In many cases, this improved flow of blood and oxygen can relieve the pain of angina and dramatically improve other coronary artery problems, as well. It's important to note, however, that a bypass operation does not cure the underlying disease.

If you have heart disease, you need to make certain lifestyle changes to help prevent further problems, whether or not you have a bypass operation. You should adopt a low-fat diet, get regular exercise, quit smoking if you smoke, lose weight if you're overweight, and keep good control over any high-risk conditions you might have, such as diabetes, high cholesterol, and high blood pressure.

Recovery from bypass surgery requires a period of gradually getting back to normal activity. During your recovery, you may need immediate medical treatment and ongoing medical

attention. But you are responsible for taking charge of the lifestyle changes that will be necessary for your full recovery. These begin with the mental and emotional adjustments needed to make changes in exercise, diet, smoking, and other habits. Dealing constructively with psychological stress is also an important skill to learn.

As a bypass patient, you will be in close touch with your physician. As you recover, you will be given exercises to start the strengthening process. You may want to enroll in cardiac rehabilitation classes after you are released from the hospital. When your physician says you are ready, you may also want to look into the K-Plus Fitness Program at one of the selected athletic clubs in your area, which offer discounted rates to Kaiser Permanente members. Call 1-800-234-6985 for more information.



For additional health information you can trust:

- Log on to our members-only Web site at www.kaiserpermanente.org/california, then click the "Kaiser Permanente Members Only" button
- Visit your local Kaiser Permanente Health Education Center
- Check your Kaiser Permanente Healthwise Handbook
- Listen to the Kaiser Permanente Healthphone messages at 1-800-33 ASK ME (1-800-332-7563)

To get your free Handbook and Healthphone Directory, call 1-800-464-4000.

The information presented here is not intended to diagnose health problems or to take the place of professional medical care. If you have persistent health problems or if you have additional questions, please consult with your doctor or other health care professional.

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