What Is Coronary Artery Bypass Surgery?

Coronary artery bypass surgery (CABG) is a procedure in which health care professionals take blood vessels from another part of the body to create new places for oxygen-rich blood to flow around, or “bypass,” blocked or narrowed coronary arteries to the heart muscle.

Arteries of your heart become narrowed or blocked over time when fats, cholesterol and other substances build up to form plaque. When the plaque breaks open and a blood clot forms, blood flow to your heart can become blocked. This can lead to chest discomfort, called angina, or a heart attack.

How is CABG surgery done?

• Your surgical team takes a blood vessel from your chest, leg or arm.
• One end is attached to the large artery that comes out of the heart, the aorta. The other end is attached to the coronary artery below the place where it’s blocked.
• Blood can now flow through this new channel to your heart.
• You may have more than one coronary artery bypass done at a time, depending on how many arteries are blocked.

What happens during bypass surgery?

CABG can be done in different ways. The most common is traditional bypass surgery.

• You will be asleep during the operation.
• An incision is made in the chest. Then, the breastbone is divided and held open during surgery.
• A heart-lung bypass machine will likely be used. It takes over the job of the heart and lungs during surgery.
• Traditional bypass surgery can take 3 to 6 hours. The length of time depends on how many arteries need to be bypassed.

Depending on your risk factors, your surgical team may use less invasive procedures in which the chest bone isn’t opened.

What happens after surgery?

You’ll:

• Be in the intensive care unit (ICU) until you’re ready for a step down unit.
• Have a tube in your mouth and throat to help you breathe. The tube is usually taken out within 24 hours.
• Be hooked up to machines that monitor your heart rate and blood pressure for 12 to 24 hours.
• Get tubes inserted into your bladder and chest to remove fluids.
• Have small tubes called IVs in your arm. They’re used to give you medicines and fluids, take blood samples and monitor your blood pressure.

What happens when I leave the ICU?

You’l(l):

• Move to a hospital room for about a week, depending on the type of surgery you had.
• Be sore around your incision.
• May have trouble sleeping.
• Must breathe deeply and cough hard to clear the fluids in your lungs.
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- Start to move and walk around right away.
- Can eat normally and should feel better each day.
- May be given medicines.
- Need another 6 to 12 weeks to recover at home if you had traditional CABG. Minimally invasive CABG has less recovery time.

What medicines may I be prescribed?
You may be prescribed dual antiplatelet therapy. This means you may be treated with two types of medicine to prevent blood clots.
- Aspirin. Almost everyone that has CABG surgery are treated with aspirin for the rest of their lives.
- P2Y12 Inhibitor. You’ll likely be on this medication for a year after the surgery. After this, it may be stopped. But you’ll continue aspirin therapy.

You may also be prescribed:
- Statins. These medications reduce “bad” LDL cholesterol levels that can cause more plaque.
- Blood pressure medications. These lower blood pressure to a healthy range.

After your surgery, you’ll go to the ICU, where your nurses and doctors will monitor your heart rate and blood pressure.

- Arrhythmia medications. Abnormal heart beats can develop after CABG. These medications keep your heart beating normally.
- Diuretics. These medicines help remove extra fluids from your body.

HOW CAN I LEARN MORE?
1. Call 1-800-AHA-USA (1-800-242-8721) or visit heart.org to learn more about heart disease and stroke.
2. Sign up for our monthly Heart Insight e-news for heart patients and their families at HeartInsight.org.
3. Connect with others sharing similar journeys with heart disease and stroke by joining our Support Network at heart.org/SupportNetwork.

Do you have questions for your doctor or nurse?
Take a few minutes to write down questions for the next time you see your health care professional.

For example:
When will my chest heal?
When can I go back to work?

We have many other fact sheets to help you make healthier choices to reduce your risk for heart disease, manage your condition or care for a loved one. Visit heart.org/AnswersByHeart to learn more.