

# Hope & Healing

## Heart Disease Treatments

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A heart at peace gives life to the body — Proverbs 14:30

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### Introduction \_\_\_\_\_

A revolution in the treatment of heart attacks was begun by coronary artery bypass grafting, or bypass surgery as it is usually known. Quickly other advances followed: balloon angioplasty, thrombolytic therapy and pacemakers. At the same time many new and more potent drugs were developed to make life more comfortable and productive for the person with heart disease.

This handout can help you and your loved ones understand more clearly what can be done to restore your heart to health.

### Bypass Surgery \_\_\_\_\_

In bypass surgery a vein from the leg or an artery from the chest or arm is used to create new pathways for blood to the heart wall, bypassing the portion of an artery blocked by a clot. Sometimes the artery may not be sound enough to take the operation, and non-surgical treatment will be tried. Bypass surgery is not recommended to prevent heart attacks in patients with mild angina attacks.

The important thing bypass surgery gives is the hope of regaining an active life. Of course, changes in diet, an exercise program and quitting smoking are necessary to gain full benefit.

### Balloon Angioplasty and Stents \_

When a patient has a blockage limited to just one or two segments of an artery, a treatment called balloon angioplasty may make it possible to open the artery. In this method a small plastic

tube with a tiny balloon in the tip is inserted into an artery in the leg and passed upward to the heart.

Using a x-ray picture for guidance, the plastic tube is positioned so that its tip lies within the blockage. The balloon at the tip is then blown up and the pressure cracks open the blockage and smooths the material clogging the artery against the wall of the artery. The blood then flows more freely.

Balloon treatments are not for everyone. Sometimes there are many blockages and medicines will be prescribed because the balloon can't reach all of them.

It's possible that patients treated with the balloon may have the artery close up again within six months (re-stenosis). To help with this problem Drug-eluting stents are now commonly placed into the opened artery to help keep it patent. These stents help to prevent re-stenosis or closing of the artery over time. There is a concern about blood clots developing in the stents, so, blood thinners are usually prescribed after a stent is placed.

### Thrombolytic Therapy (Dissolving blood clots) \_\_\_\_\_

During a heart attack a partially blocked artery may become totally blocked by the rupture of the cholesterol piled up in the wall of the artery. The rupture causes the circulating blood to slow down, and when blood is slowed it may clot. The clot will then completely block the artery. This blockage creates a heart attack.

When the blood flow to the heart muscle is blocked, the muscle will die unless the clot can be dissolved. If the clot is dissolved, life-saving blood will

again flow to the heart muscle.

The drugs used to dissolve blood clots can create remarkable results if used within half an hour of the patient's first chest pains. If an hour has passed it can still save 50 to 80% of the threatened heart muscle. If the patient waits for longer than four hours before coming to the hospital the results are far less spectacular. After six hours the drugs will usually not work. Thrombolytic drugs can be administered in most hospitals and there are few reasons for not using them.

### Pacemakers \_\_\_\_\_

The heart has its own electrical generating center. When it works well, the heart beats like a clock ticking. When the electrical center malfunctions, the heart may beat too fast, too slow, too irregularly, or it may stop altogether. Before this happens, your doctor may recommend that you receive a pacemaker.

The pacemaker is battery operated. To place one, the surgeon makes an incision in a vein and threads the pacemaker's wire into the right side of the heart. Then, in the upper chest the surgeon creates a small pocket for the battery pack just below the surface of the skin. After two days of careful checking, the patient can then return to work and other activities very quickly.

A pacemaker may need its batteries replaced after several years, but the device itself is expected to last for 10-15

years before it needs replacement.

Until then, it requires periodic checking in your doctor's office or by phone to be certain that everything is working well.

After the pacemaker is in place and working, you should be able to do many things that you avoided because of your heart problem.

**Here are several tips if you have a pacemaker:**

- At all times carry the name and type of the pacemaker, your doctor's name and phone number, and a list of your medications on a card in your wallet or on a medical identification tag.
- Check your pulse at least once a day.
- These are the signs of a failing pacemaker: dizziness, fainting, heart palpitations, shortness of breath and unexplained swelling of the legs or weight gain.
- Things to avoid being around because of electrical interference: large electrical industrial motors, high tension wires, arc welders, radio, TV, and radio transmitters, including CB radios. (Microwave exposure is not dangerous.) And be certain your dentist knows you have a pacemaker, so that an ultrasonic scaler won't be used on your teeth. Carry a letter from your doctor in case the pacemaker sets off the metal detector in an airport.

**Medical Therapy of Heart Disease**

Some heart medications have more than one action. They may lower blood pressure and also reduce the work of the heart. Others will be prescribed for one specific effect. We will cover only the major classes with their main effects and main undesired effects.

**1. Beta Blockers** decrease the work of the heart when demand is placed on the heart to pump harder. They also slow the pulse and prevent the pain of angina and lower the blood pressure. They may cause fatigue, depression and nightmares and should not be used if the

patient has asthma.

**2. Calcium Channel Blockers** dilate the coronary arteries by relaxing spasm and increasing the blood flow. They also reduce the load upon the heart in certain other ways to prevent angina. They also lower blood pressure. They may cause disturbances of heart rhythm, fluid build-up, and headache.

**3. ACE Inhibitors and ARBs** interfere with the body's production of substances that cause arteries to become smaller. They are used to treat congestive heart failure and high blood pressure. They can cause loss of appetite and taste, rash, cough, kidney problems, and jaundice.

**4. Digoxin** strengthens the heart when it beats. It is used to treat congestive heart failure and to control certain rhythm disturbances. It can cause nausea, vomiting, diarrhea, loss of appetite, and visual disturbances.

**5. Nitroglycerine** relaxes the body's arteries and veins, allowing increased flow of blood. It is used under the tongue, or in patch form to relieve angina. It can cause headache.

**6. Coumadin** is a blood thinner that requires frequent testing to keep the dose correct. It can cause unwanted bleeding if other drugs are used with it, or if the dose is too high.

**7. Aspirin and Plavix** decreases heart attacks by reducing the blood's tendency to clot. With aspirin, only a small dose is required — a baby aspirin, 81 milligrams a day, or one regular aspirin every other day.

**Summary** \_\_\_\_\_

Exciting therapy has transformed the treatment of heart disease. The message is clear. Pay attention to symptoms that may suggest heart trouble. Have them checked out. Be aware of the miracle of prompt, early therapy. It is a matter of life and death.

**Awaken the  
Miracles  
Within You**

**The Miracle  
of Purpose**

If you want to do a grand thing or something small, don't expect God to dramatically announce that you have been given a great purpose to fulfill. It won't happen.

It must bubble up from within you. You must read, talk with wise people, think, meditate, dream, wake in the night, daydream creatively, and then, you must act.

Federal Express will not deliver instructions from Heaven, telling you what to do. You must make a plan, and set goals, writing it down on paper yourself.

If you are really ready to live for God, you will feel at peace about what you must do and where you are to do it.

This is being ready with purpose.

You aren't ready when you have no definite desire, no plan, and are drifting. Pray for a clear, vivid picture that burns in your heart. That's purpose. Then, you just do it.

*The recommendations and information in this handout are appropriate in most cases. However, for specific information concerning your personal medical condition, please, consult your doctor.*