

Medical Management of Heart Disease

Heart disease, in many cases, can be treated by decreasing your risk factors and by taking medication. One of the most important things to consider when treating the heart medically is to maintain a balance between the supply and demand of the blood by the heart. Chest pain (or angina) occurs when the heart muscle is not getting enough oxygen. Oxygen comes to the heart muscle via blood, so if the muscle is not getting enough blood, it is also not getting enough oxygen. Medications can be given to increase the amount of blood that gets to the heart muscle, or decreases the amount the heart muscle needs. Three of the most common types of medications used to control angina are: nitrates, calcium channel blockers, and beta blockers.

Nitrates

Nitroglycerin is the most commonly prescribed medication for people with angina. Nitroglycerin reduces the amount of oxygen needed by the heart. It can be given in several different forms including: tablets under the tongue, adhesive patches on the skin, tablets or capsules that are swallowed, topical ointment or aerosol spray.

If your doctor orders nitroglycerin tablets for you, carry them wherever you go. They may cause dizziness so be sure to take them while sitting or lying down. Another common side effect is headaches. Replace your supply of sublingual tablets (under the tongue) every 3-6 months to ensure freshness. Do not store in the sun, such as on a windowsill.

Calcium channel blockers

These drugs block calcium ions from crossing over into cardiac and smooth muscle cells. This decreases the contractility of the heart in turn decreasing the oxygen demand of the heart. They also dilate (open up) the arteries of the heart thus getting more oxygen to the heart muscle.

Beta blockers

Reduce the work load of the heart by blocking increases in the heart rate, blood pressure and force of the heart's contraction.

Other medications often used for medical management of the heart include:

Antihypertensives

Decrease your blood pressure.

Digitalis

Slows the heart rate and makes the heart beat stronger and more efficiently.

Anticoagulants

Decrease the rate at which blood forms clots often called "blood thinners".

Antiarrhythmic medications

Control erratic, irregular heart rhythms.

Fat (lipid) reducing drugs

Decrease cholesterol and triglycerides.

Inotropes

Increase the force of the heart beat. Usually given through a vein.

Vasodilators

Relax or open up the blood vessels.

Cardiac Outpatient

Drug Infusion Therapy

Some people with heart failure or cardiomyopathy may need to receive intravenous (I.V.) drug therapy after they leave the hospital. The drugs currently being used for this therapy are Dobutamine and Milrinone. These drugs work to increase the force of the contraction of your heart. This helps to increase the amount of blood that goes to the other major organs and systems of your body. The effects of these drugs have been shown to last past the time of infusion and may even improve the function of the heart. Your doctor will decide which drug is best for you and how often you need to receive it. Some people will receive weekly infusions, others more or less frequently. Some come to the hospital, others, on occasion, receive this therapy at home. Your doctor will work with you to determine the best place for you to receive your treatment.

The procedure for this therapy is basically the same no matter which drug you receive. You will be weighed and blood will be drawn to monitor your electrolytes and kidney function. Other tests may be done as well.

You may be connected to a portable heart monitor to monitor your heart rhythm. Your blood pressure and heart rate will be taken frequently as well as an accurate measure of the liquids you take in and put out during this treatment.

Your medication will be given through an I.V. (intravenous) line with the use of an infusion pump.

Treatments usually last 4-6 hours. Healthful snacks may be provided for the longer treatments. You are welcome to bring your own lunch if you prefer.

During the treatment, your nurse will listen to your heart and lung sounds, check for fluid retention, and ask you questions about how you are coping with your heart failure. Your lab results will be reviewed and any abnormal findings will be reported to your doctor.

When the infusion is complete, the medication will be stopped, vital signs checked and if your pulse and blood pressure are stable, the I.V. line will be taken out.

If you have questions about your condition, medications, diet, water retention, etc., please use this time to ask your nurse and doctor any questions you might have. It is important for you to understand your disease and understand what you can do to help keep your symptoms under control, keep as active as possible and enjoy the things you want to do.

Medications

Medications play an important part in treating heart disease. The medications your physician prescribes for you may help your heart pump better, reduce your symptoms and decrease the limitations on your lifestyle. One of the most common reasons people are readmitted to the hospital with heart disease is because they have not taken their medications properly. It is important to follow the instructions you are given with your prescriptions.

Do's and Don'ts About Medication

- Know the names and dosages of your medications. Always keep a current list of the medications you are taking with you. Bring this list with you when you go to the doctor's office, hospital, or clinic. Have the nurse update your list every time changes are made. This information will be helpful when you call the doctor with a problem or another doctor treats you in an emergency.
- Know why you are taking these medications, how to take them, and how they work.

If you have any questions about your medications - **ASK**. Don't change, skip or add a dose without checking with your doctor. Refill your medication **BEFORE** it runs out.

Know the common side effects of your medications. Often they are minor and can be eliminated by changing medications or the dosage. Let your doctor know if anything unusual happens. Stop taking the medication and call your doctor immediately if you feel dizzy, faint, lightheaded, have difficulty breathing or develop a rash. If you are unable to get your doctor and the symptoms get worse, go to the emergency room.

Develop a routine to help you remember when to take your medication. Plan to take your medication around other regular activities in your life such as brushing your teeth, with meals, when you go to sleep, get up or watch the evening news.

Let your doctor know if you take over-the-counter medications such as antacids, cold remedies or aspirin because they may interact with your prescription medications.

Keep your medication in a dry place at room temperature.

Don't try to save money by "stretching out" your medications. Talk to your doctor about this problem.

Shop around for the lowest price, use generic brands if possible. Some people save by shopping through the mail.

Remember, the medications your doctor prescribes are important in treating your heart disease. It's very important to take the medications as ordered and to communicate to your doctor any reason why you are not able to take them as directed.