



Patients' Frequently Asked Questions

Heart & Circulation

- Are there any warning signs of a heart attack?
- What is the difference between angina and a heart attack?
- I'm a 45-year-old woman and 30 lbs. overweight. If I were to make one change in my health behaviors, what do you suggest that I do or not do? I do not smoke.
- What is the relation of Hormone Replacement Therapy (HRT) to Coronary Artery Disease (CAD)? The newspapers suggest that one is at higher risk of having a heart attack if one takes HRT.
- What are the risk factors for coronary artery disease in men and women? Are women at higher risk after menopause?
- How long do I have to take the medication? If my cholesterol comes down, can I stop the medication?
- I have high cholesterol and have been recommended to take medication. Are there side effects?
- Are food supplements and vitamins, such as vitamin E, beneficial for cardiovascular health?
- What is heart failure?
- Why do I have heart failure?
- What types of medications should I be taking for heart failure?
- How long will I need to take these medications for heart failure?
- What happens if the medications for heart failure stop working?
- Other than taking my medications what else can I do to help support my treatment program for heart failure?
- What types of activities are appropriate for heart failure?

Are there any warning signs of a heart attack?

The signs of a heart attack usually occur at the time of the event and usually involve chest pain (also squeezing, pressure, burning, or heaviness). There can also be radiation of the pain to the left arm, throat or jaw, shortness of breath, dizziness, sweating, nausea, and fainting. Unfortunately sudden death due to cardiac arrest can also be the first symptom. There are also "silent heart attacks" where there are no symptoms but the heart attack is discovered on a routine EKG.

There can be warning signs of a heart attack which can occur from days to months before the event. A recent study of female heart attack victims revealed that early symptoms included shortness of breath, anxiety, fatigue and palpitations in addition to the classical symptom of chest pain. The chest pain that precedes a heart attack is often brought on by the stress of exertion and is relieved by rest. While all of these symptoms can be experienced in conditions other than heart disease, it is best not to deny their presence and have them evaluated by a medical doctor.

Finally, it is important to know if you are at risk for a heart attack. The classic risk factors for heart attack include family history, high cholesterol, high blood pressure, diabetes and smoking. Women with these risk factors have the same risk as men for heart attack. Recently other risk factors have been identified which can be checked for by simple blood tests. These included high C-reactive protein, high homocysteine, high Lipoprotein (a), and low HDL cholesterol levels. Any combination of risk factors and symptoms demands further investigation.

Authored By: Edward Kersh, MD, California Pacific Medical Center

Reviewed By: Richard Gray, MD, California Pacific Medical Center

What is the difference between angina and a heart attack?

Angina, simply put, means pain in the chest. Usually such pain is attributed to a coronary artery condition. Angina typically occurs in individuals who have coronary disease and is the consequence of a partial blockage in an artery supplying blood flow to the muscle of the heart. A heart attack is the consequence of a sudden, complete blockage in an artery usually due to a blood clot or thrombosis. So heart attack and angina relate to the same condition; angina being a milder and temporary form of the same condition. Symptoms of angina include chest pressure which occurs on exertion and is relieved with rest or nitroglycerin. Although occasionally subtle, symptoms of a heart attack often are a more painful burning or heavy feeling in the chest which lasts for more than 20 minutes. Typically, this feeling occurs in the middle of the chest and radiates to the arms, especially the left arm, or shoulder. We have learned that symptoms of a heart attack in women can be much more varied and may include simply shortness of breath, heart palpitations or extreme sweating.

Authored By: Richard Gray, MD, California Pacific Medical Center

Reviewed By: Peter Y. Hui, MD, California Pacific Medical Center

I'm a 45-year-old woman and 30 lbs. overweight. If I were to make one change in my health behaviors, what do you suggest that I do or not do? I do not smoke.

Being overweight adds to the likelihood of developing diabetes mellitus. We now know that being overweight can lead to instability of coronary artery plaques and may, in fact, be a stimulus for heart attacks. Being 30 lbs. overweight is significant, and if there was one change in your health behavior that you should do, it would be to lose weight.

Weight loss often requires exercise which is an added health benefit.

Additionally, it is very fortunate that you do not smoke, as the combination of smoking and being overweight, in women, especially in those taking birth control pills, carries a very high risk of blood clot formation, resulting in heart attack or stroke.

Authored By: Richard Gray, MD, California Pacific Medical Center

Reviewed By: Laurence H. Lief, MD, California Pacific Medical Center

What is the relation of Hormone Replacement Therapy (HRT) to Coronary Artery Disease (CAD)? The newspapers suggest that one is at higher risk of having a heart attack if one takes HRT.

It had been believed for many years that hormone replacement therapy, known as HRT, was protective against heart disease in women. Many clinical studies showed benefits of HRT in delaying or reducing cardiac disease in women. However, when more rigorous, randomized, blinded clinical trials were done, the picture appeared to have changed. Several scientific studies have demonstrated little or no benefit of HRT. In one recent study, HRT was given to women who have had heart disease. This study found not only no benefit, but that HRT appeared to have caused a slightly increased risk of recurrent events, such as heart attack, in the first year after starting HRT. The results of these studies have resounded in the medical community and some doctors now tell women to stop or not to start HRT.

However, this picture is not entirely clear and more studies are needed to see if there are subgroups of women who may benefit.

Authored By: Richard Gray, MD, California Pacific Medical Center

Reviewed By: Rupsa Yee, MD, California Pacific Medical Center

What are the risk factors for coronary artery disease in men and women? Are women at higher risk after menopause?

For the most part, the risk factors for coronary artery disease in men and women are the same. These include: cigarette smoking, family history of coronary artery disease, high blood pressure, elevation of serum blood lipid levels, and diabetes mellitus.

However, there are subtle differences between men and women with regards to how strong these risk factors may be. For example, women are particularly affected by a low HDL level. HDL is the good cholesterol, and we want that to be as high as possible. Diabetes mellitus in women seems to have an even more prominent heart disease promoting effect than in men. A general rule is that women with diabetes are at risk for heart disease at an earlier age than women without diabetes - similar to the pattern seen in men. Therefore, women with diabetes are at greater risk for heart disease. Also, smoking causes an especially great increase in risk of heart disease for women, even more than in men.

The second part of this question, are women at higher risk after menopause, is interesting. The answer here is clearly yes. Women's risk of heart disease starts to rise in their early fifties and rises steeply throughout their mid-fifties, spanning the time frame of menopause.

Authored By: Richard Gray, MD, California Pacific Medical Center

Reviewed By: Sophie D. Barbant, MD, California Pacific Medical Center

How long do I have to take the medication? If my cholesterol comes down, can I stop the medication?

Medication cannot be stopped once cholesterol levels come down. Cholesterol levels will quickly rise back to their original values unless there is a major dietary change or significant weight loss. The magnitude of such changes is rarely large enough to replace cholesterol lowering medications. Recent data has demonstrated that there are other beneficial effects of statin-type medications beyond the lowering of cholesterol. Statins can reduce the likelihood of heart attack, cardiac death and stroke, even in the absence of significant elevations of cholesterol. This underscores the value of continuing such medications even though cholesterol values have come down.

Authored By: Richard Gray, MD, California Pacific Medical Center

Reviewed By: Andrew Rosenblatt, MD, California Pacific Medical Center

I have high cholesterol and have been recommended to take medication. Are there side effects?

High cholesterol is very common. There are safe, effective medications for reducing high cholesterol. The most commonly used medications for reducing cholesterol are called statins. Two examples are Mevacor (Lovastatin) and Lipitor (Atorvastatin). These have relatively few side effects. The most common side effect is a mild elevation of liver enzymes, which are measured by a blood test. This side effect is rare and is eliminated by reducing or stopping the medication. A small percentage of users may also experience muscle cramps.

Another medication is Niacin, useful for lowering triglyceride levels and raising HDL, the good cholesterol. The side effect here is that it often produces flushing of the skin.

Authored By: Richard Gray, MD, California Pacific Medical Center

Reviewed By: Andrew Rosenblatt, MD, California Pacific Medical Center

Are food supplements and vitamins, such as vitamin E, beneficial for cardiovascular health?

Vitamin E has been a popular vitamin because it was believed to have cardiovascular health benefits due to its antioxidant properties. Recent attention has been focused on pomegranate juice, which has demonstrated antioxidant effects. Dark chocolate has some antioxidant properties, and there has been antioxidant effects attributed to red wine, but clinical benefits have not been convincingly demonstrated. Vitamin E has now been studied comprehensively, and surprisingly did not improve cardiovascular health in several recent clinical trials.

Other vitamins, such as folic acid and some of the B vitamins like B-6 also offer no special cardiovascular benefits. However, folic acid helps suppress homocysteine levels and can protect against tendencies towards blood clotting, which high homocysteine levels can cause.

Certain foods such as garlic are believed to offer cardiovascular health benefits. Garlic in pill form or in your food can lower cholesterol. For example, research shows that significant doses of garlic have been associated with a roughly 10% lowering of cholesterol level.

Other foods such as walnuts and almonds can lower cholesterol. Several ounces a day of walnuts, in particular, can reduce cholesterol through their fiber content. Although high in calories, they are an excellent source of beneficial monosaturated oil. Foods high in soluble fiber, such as oatmeal, or the food additive, Metamucil, also lower cholesterol. Benechol, a butter substitute, also contributes to cholesterol lowering.

Authored By: Richard Gray, MD, California Pacific Medical Center

Reviewed By: James Mailhot, MD, California Pacific Medical Center

What is heart failure?

Heart failure is a clinical syndrome said to present when the heart fails to adequately pump enough blood to meet the body's needs. The terms congestive heart failure or "CHF" are also used to describe this syndrome. Symptoms a patient may experience include exertional fatigue, shortness of breath with activity, shortness of breath lying down, and shortness of breath at rest. Other symptoms include nocturnal cough, wheezing, fluid accumulation in the ankles, abdominal discomfort, bloating and loss of appetite. Some patients experience palpitations such as rapid heart beating or heart fluttering. At times, a patient may feel dizzy or feel he may lose consciousness.

Why do I have heart failure?

Heart failure is the result of a significant impairment in heart function. Most of the time this problem results from a weakening of the heart's ability to contract also known as systolic dysfunction. At other times it results from an inability of the heart to relax properly also known as diastolic dysfunction. The medical treatment of these two disorders is very different. All of the discussion and answers to questions that follow will address only heart failure due to systolic dysfunction. The reason for this is that systolic dysfunction is the more common impairment in heart function.

Many different heart disorders result in systolic dysfunction and ultimately heart failure. The more common disorders include: coronary artery disease, heart attack, hypertension, infectious diseases such as viruses, and heart valve problems. All of these and numerous other disorders damage the heart muscle and over time cause systolic dysfunction and ultimately the symptoms of heart failure. However, if heart valve diseases are corrected surgically, often the heart failure will resolve, and the heart muscle function may improve, in some cases to normal.

What types of medications should I be taking for heart failure?

The standard care for heart failure patients today consists of vasodilators medications, beta blockers, digoxin and diuretics including aldactone. Vasodilators are medications that reduce the blood pressure and make it easier for the heart to pump blood. There are a variety of classes of vasodilators, the most effective in heart failure being the angiotensin converting enzyme inhibitors also known as ACE-inhibitors. At times, patients with allergies or intolerances to this class of medication, or other medical conditions such as kidney disease, cannot tolerate this class of medication and therefore other types of vasodilators such as angiotensin receptor blockers otherwise known as (ARBs) or hydralazine and nitrates are used in their place.

What types of medications should I be taking for heart failure?

(continued)

Given that vasodilators are one of the mainstays of heart failure treatment, most heart failure patients will be treated with a drug from this class.

The next important class of drugs in the treatment of heart failure are called beta blockers. These drugs reduce the activity of sympathetic nervous system, and thereby improve long-term survival as do the vasodilators.

Diuretics are generally used only for symptomatic relief of breathing difficulties or fluid accumulation. However, one drug, aldactone (or spironolactone) has been shown to improve survival and is therefore becoming more commonplace in heart failure drug medication programs. Other more potent diuretics are usually used for symptom relief only. There are no studies demonstrating a survival benefit with their use. Finally, patients with more severe heart failure or heart rhythm problems may be taking digoxin.

How long will I need to take these medications for heart failure?

Most heart failure patients have this disorder as the result of either severe heart disease or damage that has occurred over many years. Given that heart disease is completely reversible in only a very few patients, the treatment for heart failure is usually life long. There may be alterations in medications or dosage adjustments but in general most patients will need to take some form of medication treatment, forever.

What happens if the medications for heart failure stop working?

If your symptoms of heart failure recur or worsen the first thing you should do is contact your health care provider. Your provider will evaluate you to be sure no new cardiac problems such as arrhythmia have developed, and to look for other conditions that might cause deterioration such as infections, uncontrolled hypertension, or the development of new diseases. Once those issues have been resolved, in all likelihood your drug regimes will be altered in an attempt to relieve the symptoms again. If this fails, there are a number of management options, depending on your health and the severity of your heart failure.

One option is called "tailored therapy". This involves having a catheterization of the heart to help your doctor adjust your medications. If appropriate, heart transplantation is another option for some patients, but given the limited donor supply this cannot be offered to the majority of patients with heart failure. Another option is the use of mechanical assist devices for the heart; nowadays, patients can go home with these devices in place.

Other than taking my medications what else can I do to help support my treatment program for heart failure?

In addition to taking medications as prescribed by your physician, adherence to dietary and fluid restrictions is an important adjunct to the overall treatment program for heart failure. Many times a doctor will prescribe a "no added salt diet", which in simple terms means not adding salt to food that has been already prepared and avoiding foods that are obviously salty such as pickles, chips, and pretzels. At other times, usually with more severe cases of heart failure, the doctor will prescribe a fluid restriction and set a daily cap on the amount of fluid that is to be taken in.

Equally important is the prompt notification of your health care provider should your symptoms of heart failure worsen or should you develop any symptoms suggestive of a new disease such as an infection or heart rhythm disturbance.

What types of activities are appropriate for heart failure?

Your health care provider will likely review with you the activities they feel are appropriate for your condition. In general, heart failure patients can tolerate symptom limited activities, meaning that walking or partaking in physical activity is safe and actually beneficial as long as you do not become symptomatic during the activity. This means that once you develop chest pain, shortness of breath, or fatigue with activity, the activity should be terminated and you should rest until symptoms have completely resolved before partaking in any activity again.

Authored By: Ernest A. Haeusslein, MD, California Pacific Medical Center
Reviewed By: Lester B. Jacobson, MD, California Pacific Medical Center

Produced by the Center for Patient and Community Education in association with the staff and physicians at California Pacific Medical Center. This education material is adapted for use by physicians and staff at Sutter Health affiliate hospitals from California Pacific Medical Center's learning resources.

© 2002 - 2006 California Pacific Medical Center.

Funded by a generous donation from the Mr. and Mrs. Arthur A. Ciocca Foundation.

Note: This information is not meant to replace any information or personal medical advice which you get directly from your doctor(s). If you have any questions about this information, such as the risks or benefits of the treatment listed, please ask your doctor(s).