

The ABCs of...

Acute Coronary Syndromes

What is an acute coronary syndrome (ACS)? It's a general term used by doctors that usually means a patient is experiencing one of two things:

- a small or large myocardial infarction
This is better known as a heart attack.
- unstable angina
The patient is suffering severe chest pains. A heart attack has not yet occurred but is likely to happen.

What causes an ACS? Cholesterol and inflammation lead to plaque build-up inside the walls of the heart (coronary) arteries. An ACS occurs when that plaque becomes disrupted or ruptures open. This causes a small tear or injury to the wall of the artery, and the body responds by forming a clot at that site. This clot severely decreases -- or even stops -- blood flow down the artery, and the heart muscle begins to die.

An ACS can catch patients completely by surprise. You may feel perfectly fine one day and suffer symptoms the next. What are the signs of an ACS? You may feel all or some of the following:

- chest discomfort, often described as squeezing, tightening or pressure (like someone is standing on your chest)
- shoulder, back, arm, or jaw pain
- difficulty catching your breath
- cold sweats
- feeling lightheaded or dizzy
- upset stomach or indigestion

The ABCs You Need to Know...	Suggested Action	Optimal Care
<p>Angiography and Angioplasty</p> <p>A coronary angiogram is a picture of a heart artery. Using an x-ray camera, a catheter is inserted from the femoral artery (in the groin area) and guided up into the heart. An iodine dye is injected into the heart artery to find the blockages.</p> <p>Coronary angioplasty is the unclogging of blocked heart arteries. In the majority of patients, stents are placed in the heart artery during an angioplasty.</p>	<p>Doctors frequently recommend an angiogram and possible angioplasty if a patient is having or has had a heart attack.</p>	<p>Interventional Cardiologists are subspecialized cardiologists who perform angioplasties and put stents in the heart.</p>
<p>Blood pressure</p> <p>Constant high blood pressure (known as hypertension) leads to heart attacks and strokes. Lowering the blood pressure reduces your risk of a heart attack, stroke, and kidney disease.</p>	<p>Limit the amount of salt you eat, control your weight, and exercise. Check your blood pressure at home.</p>	<p>Your normal blood pressure should be 120/70 mm/Hg or less. If you are being treated for high blood pressure, the goal is to reduce your blood pressure to less than 135/85 mmHg.</p>
<p>Compliance with medication</p> <p>If you have heart disease or risk factors for heart disease, your doctor will likely prescribe medications to help. These medications may include aspirin, a statin, an ACE inhibitor, a beta-blocker, vitamin D, and/or fish oil supplements.</p>	<p>Take all your medications every day as directed. Take all your medications as often and for as long as the doctor prescribes.</p>	<p>Most medications will need to be taken life-long in order to prevent future heart attacks and strokes. Make a list of your medications and bring the list to every doctor's appointment.</p>
<p>Drinking alcohol</p> <p>Light to moderate consumption of alcohol reduces your risk of heart disease.</p>	<p>1 to 2 drinks a day is safe.</p>	<p>Be aware that heavy drinking is dangerous and could be toxic to the heart.</p>
<p>Erectile difficulty</p> <p>The inability to become sexually aroused, or for men to achieve and maintain an erection, may be a symptom of heart disease.</p>	<p>Talk to your doctor.</p>	<p>Diet, exercise, and weight loss can help with this. Medications are also available.</p>

<p>Fish oil and other supplements Fish oil capsules, omega 3 fatty acids, have been shown to lower cholesterol. Other supplements like niacin, vitamin D are also beneficial.</p>	<p>Take 1000 mg of enteric coated fish oil daily. Some patients might benefit from up to 4000 mg a day.</p>	<p>Talk to your doctor about any supplements you are taking. Ask your doctor if there are supplements that would be helpful to you.</p>
<p>Genetics Coronary artery disease (CAD) runs in families. If your parent has CAD, it is more likely that you and your brothers and sisters will also develop CAD. If you have CAD, your children are at higher risk.</p>	<p>Share your medical history with children and siblings.</p>	<p>Screen (or test) children for risk factors, and start healthy living and eating habits early.</p>
<p>Hear disease - the #1 killer of men and women in the United States. One out of every ten patients will die from their heart attack. Learn the various symptoms of a heart attack:</p> <ul style="list-style-type: none"> • Pain, pressure, tightness, squeezing, and/or discomfort in the chest • Discomfort in shoulders, arms, neck, and upper back • shortness of breath, sweating, nausea, lightheadedness, feelings of nervousness, palpitations 	<p>Seek medical attention IMMEDIATELY</p> <ul style="list-style-type: none"> • Dial 9-1-1 • Chew and swallow four uncoated baby aspirin or one uncoated adult aspirin. • Don't drive yourself to emergency room. 	<p>Seek medical attention IMMEDIATELY Be aware of local facilities when on vacation, so you know exactly where to go in case of an emergency.</p>
<p>ICE: In Case of Emergency Know the facilities in your local community. Have phone number of your emergency contact person and your doctor with you at all times.</p>	<p>Keep emergency phone numbers in your wallet or purse.</p>	<p>Program your cell phone with an ICE, so the emergency medical services (EMS) person will know who to call.</p>
<p>Just do it! Moderate exercise such as walking, biking, and swimming are great and help reduce the risk of heart disease. Your doctor might also encourage strength training, flexibility, and balance exercises.</p>	<p>If possible, get equipment at home. Exercise with friends and family so exercise is convenient and fun.</p>	<p>Ideally, you should exercise 5 to 7 days per week for 20 to 30 minutes each time. This time can be split into two different exercise sessions, rather than one big one.</p>
<p>eKg EKG is an electrocardiogram. This will be done either by the paramedics if</p>	<p>The EKG is safe and easy to do.</p>	<p>Most patients should have an EKG during a health screening as an adult.</p>

<p>911 is called or as soon as you get to the emergency room. The EKG can tell if you are having a heart attack.</p>		
<p>LDL cholesterol LDL is Low Density Lipoprotein, this is the bad cholesterol. HDL is High Density Lipoprotein this is the good cholesterol. Keep LDL cholesterol low. (Remember L = lousy.) Keep HDL cholesterol high. (Remember H = healthy.)</p>	<p>Diet, exercise, weight loss and medication (usually a statin) can help lower your LDL cholesterol.</p>	<p>Ideally, your levels should be as follows:</p> <ul style="list-style-type: none"> • LDL less than 100 • HDL greater than 45
<p>Markers of heart attacks Blood tests are done to detect damage to heart muscle. The most common marker checked today is called troponin. If the troponin level is elevated then it is very likely damage to the heart muscle has occurred.</p>	<p>Troponin levels are checked every few hours. It takes time for this protein to show up in the blood stream.</p>	<p>High troponin levels are associated with greater risk of dying from a heart attack. If the troponin level is normal after 2 or 3 tests then the risk of dying is very low.</p>
<p>Nuclear medicine stress tests and other stress tests Stress tests are often done to see if there are severe blocked arteries in the heart. Most stress tests are done having patients walk on a treadmill. Some patients are unable to walk and therefore medications are used to stress the heart.</p>	<p>Some stress tests use a nuclear medicine camera to look at the heart for areas that are not getting enough blood flow.</p>	<p>Some stress tests use an echocardiogram (Ultrasound) to look at the heart for areas of that are not getting enough blood flow.</p>
<p>Open Heart Surgery Some patients will need open heart or “bypass” surgery because of severe blockages in the main heart arteries. A bypass is when a heart surgeon opens up the chest and takes a vein or an artery from elsewhere in the body and uses it to detour blood around the blocked areas.</p>	<p>Open heart surgery is more often recommended if you have diabetes, completely blocked arteries, or blockage of the left main trunk artery to the heart.</p>	<p>Patients are usually in the hospital 5 to 7 days after open heart surgery, and then they recover at home. Patients are normally fully recovered 4 to 6 weeks after open heart surgery.</p>
<p>Plaque Cholesterol and inflammation lead to plaque build-up inside the walls of the heart (coronary) arteries. An ACS occurs when that plaque becomes disrupted or ruptures open. This causes a small tear or injury to the wall of the artery, and the body responds by forming a clot at that site. This clot severely decreases -- or even stops -- blood flow down the artery, and the</p>	<p>Before most heart attacks, the plaque that builds up narrows the heart artery less than 50%.</p>	<p>Reducing all risk factors, decreases the likelihood that the plaque will rupture and cause an ACS.</p>

heart muscle begins to die.		
<p>Quality and Quantity of food</p> <p>For a healthy heart, increase the amount of fruits, vegetables, fish, and non-fat dairy products you eat. Decrease the amount of salt, fast foods, fatty meat, and whole milk dairy products you eat.</p>	Eat a well balanced diet. Choose healthy foods for snacks.	A dietitian can help you create a healthy diet that is tailored specifically to your lifestyle.
<p>Risk factors</p> <p>Risk factors for heart disease include smoking, high blood pressure, diabetes, high cholesterol, lack of exercise, being overweight, stress, chronic sadness (depression), sleep disorders, eating fatty foods, and not brushing and flossing teeth.</p>	Know your risk factors. Discuss them all with your doctor.	Improving your risk factors will decrease your risk of an ACS.
<p>Stents</p> <p>Patients with ACS or heart attacks are often treated with angioplasty. In this procedure, an Interventional Cardiologist places stents in blocked heart arteries. Stents are small metal mesh tubes that are placed in the blocked area improving the blood flow into the heart muscle.</p>	Stents remain in the heart artery forever. Patients will need to take aspirin and Plavix (or other blood thinners) after stents are placed to prevent clots from forming inside the stents.	Stents can re-narrow over time due to scar tissue. Exercising regularly can help detect if a stent is beginning to narrow.
<p>Tobacco</p> <p>Smoking increases the risk of heart attacks, strokes, and other vascular diseases, plus several cancers.</p>	Do not use tobacco products, and avoid second hand smoke.	Try to completely stop smoking.
<p>Under Stress?</p> <p>Depression, anxiety, and stress may increase your risk of a first or recurrent heart attack.</p>	Talk with your doctor about stresses in your life.	Exercise and counseling are very helpful, some patients need medications.
<p>Vaccinations</p> <p>Influenza (flu) and pneumonia vaccines (Pneumovax) can reduce the risk of heart attacks, congestive heart failure, and death.</p>	Ask your doctor which vaccinations are right for you.	Get a flu vaccine every year and a pneumonia vaccine at least once in your lifetime.

<p>Women Heart disease is the #1 cause of death for women. The symptoms of a heart attack in women will often be chest pressure or chest discomfort. However, women more often than men have difficulty breathing, shortness of breath, and/or shoulder discomfort as symptoms of their heart attack.</p>	<p>Women are more likely than men to die from their heart attack.</p>	<p>Heart attacks are more often misdiagnosed in women than in men.</p>
<p>XXXL Obesity is increasing in men, women, and children. Being overweight or obese places you at higher risk for heart attacks and strokes, and also causes hypertension, diabetes, and elevated cholesterol.</p>	<p>Set a target weight, exercise daily, and reduce the amount of food you eat.</p>	<p>Weight loss will lower your risk of heart attacks and will decrease the amount of medications you need to take for diabetes, high blood pressure and cholesterol.</p>
<p>You are in charge!</p>	<p>There is only so much your doctor can do. You need to take your medications, watch your diet, stop smoking, and exercise.</p>	<p>Talk to your doctor. Ask questions about your health and risk factors for heart disease. Make a list of your medications, and carry it with you.</p>
<p>ZZZZZZ Sleep disorders (such as severe snoring or sleep apnea) increase the risk for heart attacks.</p>	<p>Ask your spouse or significant other if you snore or briefly stop breathing while you are asleep.</p>	<p>If your sleep disorder continues, a sleep study may be necessary, so be sure to keep your doctor informed.</p>