Understanding Syncope

■ Why You Faint
■ How Fainting Is Diagnosed
■ How Fainting Is Treated
A Frightening Moment

Maybe you woke up on the ground, embarrassed and scared. You may even have injured yourself as you fell. Why did you faint? Is this a sign of a serious health problem? **Syncope** (fainting) has many causes. Sometimes it is not serious. In other cases, syncope is a sign of a heart problem. But treatment can help. Read on to learn more.

What Is Syncope?

If your blood pressure drops too low, your brain may not get enough oxygen-rich blood. Your body responds by losing consciousness briefly. You also slump or fall down. This problem is called syncope, fainting, or a blackout. Syncope happens suddenly. But you may have warning signs first. These can include dimmed vision, lightheadedness, or a rapid heartbeat. Or you may have no warning signs at all. After syncope, you recover quickly. But you may feel tired.
Is It Serious?

Syncope is a common problem with many possible causes. Often these causes are not serious. For instance, syncope can be caused by standing for too long or sitting up too fast. In some cases, you may never faint again. But if heart trouble causes syncope, this can be serious. To provide the best treatment, your doctor will want to learn why you fainted. If heart trouble is causing your syncope, treatment may even save your life.

Treatment Options

Your treatment options depend on what’s causing your syncope. You may be asked to:

• Adjust your diet or lifestyle to help avoid fainting.
• Use or adjust medications.
• Have a procedure or surgery to control a heart problem.

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Understanding Syncope

Your heart pumps oxygen-rich blood to the brain and the rest of the body. Your heart rate and blood pressure increase or decrease as needed. But sometimes blood pressure decreases too much. Then the brain does not get enough oxygen-rich blood, and you faint.

Why Your Heart Rate and Blood Pressure Change

Your brain and body need a steady supply of oxygen-rich blood. Your heart rate and blood pressure adjust to maintain this steady supply throughout all your activities. The heart creates electrical signals that travel through it on pathways. These signals set the heart rate and tell the heart when to pump blood. In response to your body’s needs, your brain may also trigger changes in your heart rate and blood pressure. This keeps your blood flow strong.

When Syncope Is Not Serious

Even if you are healthy, you may have syncope. This is because your body may be sensitive to certain strains and stresses. Your doctor may call your problem vasovagal syncope or orthostatic hypotension. These two types of syncope are not serious. They can be caused by:

- Strong feelings, such as anxiety or fear. A nerve signal may briefly change your heart rate and lower your blood pressure too much.
- Standing for too long. Standing may cause blood to pool in your legs. When this happens, your brain may not receive all the blood it needs.
- Standing up too quickly. Your blood pressure may not adjust fast enough to changes in posture. As a result, blood pressure may drop too low. Certain medications can also cause this problem.
When Heart Trouble Causes Syncope

A heart problem can decrease the amount of oxygen-rich blood that reaches the brain. Your heart rate may be too slow or too fast. Or a damaged heart valve may decrease blood flow. If the heart does not pump enough blood, your blood pressure may drop too low, and you may faint. Heart trouble can be serious and may even be fatal if untreated.

**A Slow Heart Rate**

Electrical signals tell the chambers of the heart when to pump. But the signals may be slowed or blocked (heart block) as they travel on the heart's pathways. This can be caused by aging, scarred heart tissue, or damage from heart disease. When the heart rate slows, not enough blood is pumped.

**A Fast Heart Rate**

Certain problems can make the heart race. For instance, after a heart attack, abnormal electrical signals may be created. These signals can make the heart suddenly beat very fast. The heart pumps before the chambers can fill with blood. So less blood reaches the brain and other parts of the body. Illegal drugs, certain medications, heart disease, or an inherited condition can also cause this.

**A Heart Valve Problem**

Blood travels through the chambers of the heart as it is pumped. Heart valves open and close to help move blood in the right direction. But a valve may not open or close fully, if it’s hardened or scarred. As a result, less blood is pumped through the heart to the brain and body.
Diagnosing Syncope

Syncope has a wide range of causes. Your doctor will ask you about your fainting episode and health history. You will also be examined. And your doctor may order one or more tests. Each test helps to pinpoint the cause of your syncope.

Health History

Your health history includes any past illnesses. Also tell your doctor what happened when you fainted. You may be asked about:

- Where and when you fainted, and how long the episode lasted
- How you felt just before and right after you fainted
- Any family history of heart disease or fainting
- Any cardiac or neurological problems you may have
- Any medications you may be taking

Physical Exam

Your doctor will examine you for signs of what made you faint. During the exam, your doctor may:

- Check your blood pressure several times
- Listen for any murmurs or unusual heartbeats
- Examine your eyes, reflexes, and the movement of your limbs

Electrocardiogram

An electrocardiogram (ECG, also called EKG) can help your doctor find a slow or a fast heartbeat. Electrodes placed on your chest and shoulders record your heartbeat and your heart’s electrical signals. A stress ECG records these signals while you exercise, often on a treadmill.

Holter and Event Monitoring

For Holter monitoring, a portable ECG monitor records your heartbeat for 24 hours. An event recorder is similar, but the device is worn for several weeks. When you feel symptoms, you press a button, and your heartbeat is recorded. A tiny recorder may also be implanted under your skin for long-term monitoring.
Echocardiogram

An echocardiogram takes pictures of your heart. It can show heart valve or heart function problems. Or it can reveal damage from a heart attack. A special probe bounces harmless sound waves off your heart. The waves are converted into a moving image on a video screen.

Electrophysiology Studies

Electrophysiology studies (EPS) help your doctor find weak or damaged electrical pathways. These pathways can make your heart beat too fast or too slow. Your skin is numbed, and wires are guided through blood vessels to your heart. There the wires record your heart’s electrical signals. These studies help your doctor determine the exact cause of your heart rate problem and how to treat it.

Tilt Table Testing

Tilt table testing helps show if changes in your body position affect your heart rate and blood pressure. The test is done while you lie on a special table. During the test, the table is tilted up and left up for a while. Then it is tilted down so you lie flat again. Your symptoms, heart rate, and blood pressure are monitored throughout the test.
Preventing Future Fainting Spells

You may have been told that your fainting is not caused by a heart problem. But syncope can still be scary. And if you do faint, you can be injured as you fall. The good news is that you can help prevent fainting. And you can learn to respond to your body’s warning signs.

Small Changes Make a Big Difference

Making a few small changes can often help prevent a fainting spell. Your doctor may suggest the following:

• Don’t stand for long. Shop when checkout lines are short.
• Sit near the aisle in crowded places. Then you can leave if you feel faint.
• Wear specially prescribed stockings to keep blood from pooling in your legs.
• Get up slowly after you have been lying down. And sit for a moment before standing.

• Watch what you eat. If directed, add salt to your food to raise your blood pressure. Don’t skip meals.
• Drink water often, especially when exercising and during hot weather.
• Limit your driving as directed.

Arrive early to get a seat and avoid standing.
The Role of Medications
Medications can play a role in syncope. You may be taking medications that cause you to faint. Other medications to help prevent fainting. Tell your doctor about all medications you're taking. Mention if you've started any of them recently. To help you feel better:

Your medications may be changed or reduced. Blood pressure medications may cause fainting. Certain combinations of medications may also make you faint. And some nonprescription medications, herbs, and teas may cause symptoms, too.

Medications may be prescribed. Taking certain medications can help prevent fainting. Your doctor can discuss these with you.

The Role of Procedures
Did heart trouble cause your fainting? A procedure may improve blood flow, stop syncope, and help prevent further heart problems. Some procedures speed up or slow down your heart rate. Other, less common procedures fix problem areas in your heart. Your doctor can tell you whether a procedure may be right for you. He or she can also explain the benefits and risks of each procedure.

If You Feel Faint
You may make some lifestyle changes but still sometimes feel faint. If this happens, your doctor may suggest that you:

- Learn the warning signs of fainting: weakness, nausea, dimmed vision, sweating, lightheadedness, or a fast heartbeat.
- Don’t ignore or fight any signs that you may faint.
- Lie down until you feel better. Your symptoms should go away in about 20 to 30 minutes.
- Sit down and put your head between your knees if you can’t lie down.

Lie down for a while if you feel faint.

The Role of Procedures
Back in the Swing of Things

Once the cause of your fainting is found and treated, you can get back in the swing of things. In most cases, there is no need to limit what you do. You can enjoy all your work and leisure activities.