



UNIVERSITY OF EMBU

DEPARTMENT OF HEALTH SERVICES

LOW BLOOD PRESSURE (HYPOTENSION)

Your blood pushes against your arteries with every heartbeat. The force of blood pushing against your artery walls is called blood pressure.

Blood pressure goes up and down in response to your regular activities, such as sleeping and moving around. The medical term for low blood pressure is hypotension.

Blood pressure is made up of two measurements: when your heart beats and in the periods of rest between heartbeats.

- Systolic pressure (or systole) is the measurement of your blood pumping through your arteries when the ventricles of the heart squeeze. Systole supplies your body with blood.
- Diastolic pressure (or diastole) is the measurement for the periods of rest. Diastole supplies your heart with blood by filling the coronary arteries.

Your blood pressure reading is made up of two numbers: first the systolic measure, then the diastolic measure. Having a lower blood pressure is good in most cases (less than 130/80).

But low blood pressure can sometimes make you feel tired or dizzy. In those cases, hypotension can be a sign of an underlying condition that should be treated. Hypotension in adults is defined as a blood pressure reading of lower than **90/60**



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Types of hypotension

There are several types of hypotension. Low blood pressure is categorized according to when it happens and what's causing it.

1. Orthostatic hypotension

Also known as postural hypotension is the drop in blood pressure that occurs when you move from sitting or lying down to standing.

As your body adjusts to the position change, you may feel dizzy or lightheaded. This is what some people refer to as “seeing stars” when they get up.

Orthostatic hypotension is the most common form of low blood pressure. It can affect people of all ages, but it's especially common in older adults. Aging and pregnancy can also cause an overall lowering of blood pressure.

Conditions affecting the autonomic nervous system, such as Parkinson's disease and diabetes, can often lead to orthostatic hypotension.

2. Postprandial Hypotension

Postprandial hypotension is a drop in blood pressure that occurs after eating. Low blood pressure after eating is more common in older adults and people with autonomic dysfunction.

3. Neurally-mediated Hypotension

Blood pressure is a balancing act between your nervous system and other bodily systems (like your hormones and organs). Neurally-mediated hypotension happens when there is an abnormal reflex interaction between the heart and the brain.





Causes of neutrally mediated hypotension include:

- Standing in one position for a long time. Children experience this form of hypotension more often than adults.
- Having a strong emotional response, such as feeling shocked or scared. Some people experience low blood pressure during medical or dental procedures for this reason.

4. Severe Shock

A severe drop in blood pressure can occur during shock. Shock can happen if you experience a serious injury or infection.

During shock, your organs do not get the blood and oxygen they need to function properly. Severe hypotension can be life threatening if not treated quickly.

5. Other types

Having low blood pressure all the time can be a side effect of some medications. For example, medications used to treat high blood pressure can sometimes cause hypotension.

Other conditions affecting the heart, nerves, liver, or hormone systems can also cause an overall lowering of blood pressure, vitamins deficiencies can also contribute to lower blood pressure.

Hypotension symptoms

Hypotension doesn't always cause symptoms but sometimes low blood pressure means your vital organs aren't receiving as much blood flow as they need. If this happens, you might feel tired or unwell.



Symptoms of hypotension may include:

- fatigue, an all-around sense of tiredness or lacking energy
- lightheadedness, or feeling like you might faint
- dizziness, feeling off-balance when you get up from a reclined or seated position, or while you're standing
- nausea, a sense of discomfort in your stomach and feeling like you want to vomit
- clammy skin, when you feel damp or sweaty to the touch
- depression, persistent feelings such as sadness or low mood that interfere with your daily activities
- loss of consciousness, also known as fainting or syncope
- blurry vision, when your eyesight is out-of-focus or hazy

Treatment for hypotension

Your treatment plan will depend on what's causing your hypotension. Your doctor will consider factors including:

- the type of hypotension you're experiencing
- the situations that may be causing hypotension for you

For some people, low blood pressure may not cause any symptoms. In cases where treatment is needed, your doctor may recommend lifestyle changes, medical treatment, or a combination of both.



Lifestyle changes

Sometimes changing certain habits can improve your low blood pressure. The causes of hypotension are different for different people, so your care plan probably won't include all of these changes.

Depending on the specifics of your situation, your doctor might suggest that you:

- **Drink more water, less alcohol.** Alcohol is dehydrating and can lower blood pressure, even if drinking in moderation. Water increases the amount of blood in the body and prevents dehydration.
- **Pay attention to body positions.** Gently move from lying flat or squatting to a standing position. Don't sit with legs crossed.

If symptoms of low blood pressure begin while standing, cross the thighs like a pair of scissors and squeeze. Or put one foot on a ledge or chair and lean as far forward as possible. These moves encourage blood flow from the legs to the heart

Change positions slowly and gradually. Instead of standing up quickly, work your way into a sitting or standing position using small movements. Slow, deep breathing may help keep your blood pressure up.

- **Eat small, low-carb meals.** To help prevent blood pressure from dropping sharply after meals, eat small meals several times a day. Limit high-carbohydrate foods such as potatoes, rice, pasta and bread.

A health care provider also might recommend drinking one or two strong cups of caffeinated coffee or tea with breakfast. Caffeine can cause dehydration, however, so be sure to drink plenty of water and other fluids without caffeine.

- **Exercise regularly.** As a general goal, aim for at least 30 minutes of moderate physical activity every day. Avoid exercising in hot, humid conditions.



- **Learn your emotional or stress triggers**

Make note of the situations where you felt very scared or emotional right before a drop in your blood pressure. You may be able to plan ahead to avoid those situations. Or, you can plan for support in case you become dizzy or feel unwell.

Medical treatment

Some forms of hypotension may require medical treatment. Medical treatment for low blood pressure can include:

- **Medication for an underlying condition.** When an underlying condition is causing low blood pressure, your treatment may include medication for that condition. Your doctor may recommend medication for conditions such as heart disease, diabetes, or infection.
- **Medication to raise blood pressure.** Sometimes, your doctor will prescribe daily medication to raise severely low blood pressure. This is more likely in cases of severe orthostatic hypotension when other treatments have not helped.
- **Emergency treatment for shock.** Shock-induced hypotension is the most serious form of low blood pressure. Dangerously low blood pressure must be treated immediately. Emergency personnel may give you fluids and other treatments to increase your blood pressure and stabilize your vital signs.

Complications

Hypotension isn't always a sign of a larger health problem, and it may be treated easily. But for some people, low blood pressure requires treatment to prevent possible complications.

Some complications of hypotension are:





1. Falls and related injuries

A sudden drop in blood pressure may make you feel dizzy, lightheaded, or even lose consciousness (faint). These symptoms can come on quickly, causing falls or other injuries.

Falls are a major cause of hospitalization for older adults. Older adults are more likely to experience hypotension after standing up or eating. Treatment and lifestyle changes can help you manage hypotension symptoms.

2. Shock

If your blood pressure falls dangerously low, your vital organs can start to malfunction because they aren't receiving enough blood to work properly. This can cause you to go into shock. Symptoms of shock include:

- cool, clammy skin
- a fast or irregular heartbeat
- rapid breathing

Shock is a medical emergency. If you think you or someone else is experiencing shock, call your local emergency services.

Conclusion

Many people can manage low blood pressure by understanding the condition and its symptoms. Learn your triggers, if you have them, and how to manage them.



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If low blood pressure is making you feel unwell, your doctor may recommend lifestyle changes or medical treatment. If you're prescribed medication, take it as directed to increase your blood pressure and avoid potentially harmful complications.

It's always best to notify your doctor if you're concerned about your blood pressure levels and any symptoms you have.



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