LOW BLOOD PRESSURE

Hypotension

The drop in blood pressure if the body isn’t able to adjust blood pressure and blood flow fast enough for the change in position.

♀ Symptom ♂ Male & Female

About Low blood pressure

Hypotension is low blood pressure, especially in the arteries of the systemic circulation (Pic. 1). Blood pressure is the force of blood pushing against the walls of the arteries as the heart pumps out blood. A systolic blood pressure (Pic. 2) of less than 90 millimeters of mercury (mm Hg) or diastolic of less than 60 mm Hg is generally considered to be hypotension. Low blood pressure, particularly below 110/75 mm Hg, is associated with an increased risk for poor outcomes.

However, in practice, blood pressure is considered too low only if noticeable symptoms are present. The primary symptoms of hypotension are lightheadedness or dizziness. If the blood pressure is sufficiently low, fainting may occur.

Low blood pressure can be caused by low blood volume, hormonal changes, widening of blood vessels, medicine side effects, anemia, heart problems or endocrine problems. Low blood pressure is sometimes associated with certain symptoms, many of which are related to causes rather than effects of hypotension:

- chest pain
- shortness of breath
- irregular heartbeat
- fever higher than 38.3 °C (101 °F)
- headache
- stiff neck
- severe upper back pain
- cough with sputum
- prolonged diarrhea or vomiting
- dyspepsia (indigestion)
- dysuria (painful urination)
- adverse effect of medications
- acute, life-threatening allergic reaction
- seizures
- loss of consciousness
- profound fatigue
- temporary blurring or loss of vision
- black tarry stools

Orthostatic hypotension, also called postural hypotension, is a common form of low blood pressure. It occurs after a change in body position, typically when a person stands up from either a seated or lying position. It is usually transient and represents a delay in the normal compensatory ability of the autonomic nervous system. It is commonly seen in hypovolemia (decreased blood volume) and as a result of various medications.

Vasovagal syncope is a form of dysautonomia (malfuction of the autonomic nervous system) characterized by an inappropriate drop in blood pressure while in the upright position. Vasovagal syncope occurs as a result of increased activity of the vagus nerve, the mainstay of the parasympathetic nervous system.
Another, but rarer form, is **postprandial hypotension**, a drastic decline in blood pressure that occurs 30 to 75 minutes after eating substantial meals. When a great deal of blood is diverted to the intestines (a kind of “splanchnic blood pooling”) to facilitate digestion and absorption, the body must increase cardiac output and peripheral vasoconstriction to maintain enough blood pressure to perfuse vital organs, such as the brain. Postprandial hypotension is believed to be caused by the autonomic nervous system not compensating appropriately, because of aging or a specific disorder.

For some people who exercise and are in top physical condition, low blood pressure is a sign of good health and fitness. For many people, excessively low blood pressure can cause dizziness and fainting or indicate serious heart, endocrine or neurological disorders. Severely low blood pressure can deprive the brain and other vital organs of oxygen and nutrients, leading to a life-threatening condition called shock.

The diagnosis of hypotension is made by first obtaining a blood pressure (Pic. 3), either non-invasively with a sphygmomanometer or invasively with an arterial catheter (mostly in an intensive care setting). For most adults, the healthiest blood pressure is at or below 120/80 mmHg. A small drop in blood pressure, even as little as 20 mmHg, can result in transient hypotension. If the MAP (Mean Arterial Pressure) is <65mmHg, this is generally considered hypotension.

The treatment for hypotension depends on its cause. Chronic hypotension rarely exists as more than a symptom. Asymptomatic hypotension in healthy people usually does not require treatment. Treatment of hypotension may include the use of intravenous fluids or vasopressors. When using vasopressors, trying to achieve a mean arterial pressure (MAP) of greater than 70 mmHg does not appear to result in better outcomes than trying to achieve a MAP of greater than 65 mm Hg in adults. Meditation, yoga, or other mental-physiological disciplines may also reduce hypotensive effects.

Numerous studies have highlighted an adverse relationship between low blood pressure and adverse outcome. Regarding to the hypotension during pregnancy, there is a small body of research which has consistently demonstrated the negative effect of persistent maternal hypotension on poor pregnancy outcome including stillbirth.

Low blood pressure may be associated with several diseases including:

**Ectopic pregnancy**

Ectopic pregnancy is a life-threatening condition characterised by the implantation of an embryo outside the uterine cavity, usually in the fallopian tube. The subsequent trophoblastic proliferation causes erosion and bleeding. Unlike the uterus, the fallopian tube's muscle layer does not undergo hypertrophy (growth), so rupture into the lumen and peritoneal and retroperitoneal cavities occurs. Significant abdominal tenderness suggests ruptured ectopic pregnancy, especially in a patient with hypotension who presents with guarding and rebound tenderness.
When systemic arterial blood pressure is measured, it is recorded as a ratio of two numbers (e.g., 120/80 is a normal adult blood pressure), expressed as systolic pressure over diastolic pressure.

Systole is the last stage of a heart beat. It happens right after diastole, when the heart refills with blood.

A sphygmomanometer is a device used to measure blood pressure in humans.

Sources

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