

# Causes of erectile dysfunction NHS Source

**Erectile dysfunction (ED) can have many causes, such as certain medical conditions, medications and stress.**

It's important to identify the cause of erectile dysfunction and treat any underlying conditions.

## Erections

When a man becomes sexually excited (aroused), his brain sends signals to the nerves in his penis. The nerves increase the blood flow to the penis, causing the tissue to expand and harden.

Anything that interferes with the nervous system or the blood circulation could lead to erectile dysfunction.

Anything that affects the level of sexual desire (libido) can also cause erectile dysfunction because a [reduced libido](#) makes it more difficult for the brain to trigger an erection. Psychological conditions, such as [depression](#), can reduce libido, as can changes in hormone levels (chemicals produced by the body).

## Physical causes

There are four main types of health conditions that can cause physical problems resulting in erectile dysfunction. These are:

- conditions affecting the flow of blood to your penis – **vasculogenic**
- conditions affecting your nervous system, which is made up of your brain, nerves and spinal cord – **neurogenic**
- conditions affecting your hormone levels – **hormonal**
- conditions affecting the physical structure of your penis – **anatomical**

## Injuries and surgery

Penis injuries or surgical treatment of the penis, pelvis or surrounding areas can sometimes lead to erectile dysfunction.

Erectile dysfunction is also thought to occur in up to 15-25% of people who experience a [severe head injury](#).

## Vasculogenic conditions

Examples of vasculogenic conditions that cause erectile dysfunction include:

- [cardiovascular disease](#) – a disease of the heart or blood vessels, such as atherosclerosis (hardening of the arteries)
- [high blood pressure](#) (hypertension)
- [diabetes](#) – a condition caused by high blood sugar levels. This can affect both the blood supply and the nerve endings in your penis, so it is also a neurogenic condition

Erectile dysfunction is strongly associated with cardiovascular disease. For this reason, it may be one of the first causes your GP considers when making a diagnosis and planning your treatment.

### **Neurogenic conditions**

Examples of neurogenic conditions that cause erectile dysfunction include:

- [multiple sclerosis](#) – a condition that affects the body's actions, such as movement and balance
- [Parkinson's disease](#) – a condition that affects the way that the brain coordinates body movements, including walking, talking and writing
- a spinal injury or disorder
- a [stroke](#) – a serious condition that occurs when the blood supply to the brain is interrupted

### **Hormonal conditions**

Examples of hormonal conditions that cause erectile dysfunction include:

- hypogonadism – a condition that affects the production of the male sex hormone, testosterone, causing abnormally low levels
- an [overactive thyroid gland](#) (hyperthyroidism) – where too much thyroid hormone is produced
- an [underactive thyroid gland](#) (hypothyroidism) – where not enough thyroid hormone is produced
- [Cushing's syndrome](#) – a condition that affects the production of a hormone called cortisol

### **Anatomical conditions**

Peyronie's disease, which affects the tissue of the penis, is an example of an anatomical condition that can cause erectile dysfunction.

### **Medicine**

In some men, certain medicines can cause erectile dysfunction, including:

- diuretics – these increase the production of urine and are often used to treat high blood pressure (hypertension), heart failure and kidney disease
- antihypertensives – such as [beta-blockers](#), that are used to treat high blood pressure
- fibrates – medicines used to lower [cholesterol](#) levels
- antipsychotics – used to treat some mental health conditions, such as [schizophrenia](#)
- [antidepressants](#) – used to treat depression and some types of pain
- [corticosteroids](#) – medication that contains steroids, which are a type of hormone
- H2-antagonists – medicines used to treat [stomach ulcers](#)
- anticonvulsants – used to treat [epilepsy](#)
- [antihistamines](#) – used to treat allergic health conditions, such as [hay fever](#)
- anti-androgens – medication that suppresses androgens (male sex hormones)

- cytotoxics – medication used in [chemotherapy](#) to prevent cancer cells from dividing and growing

Speak to your GP if you are concerned that a prescribed medicine is causing erectile dysfunction. Alternative medication may be available. However, it is important never to stop taking a prescribed medicine unless you are advised to do so by a qualified healthcare professional who is responsible for your care.

## **Psychological causes**

Possible psychological causes of erectile dysfunction include:

- [depression](#) – feelings of extreme sadness that last for a long time
- [anxiety](#) – a feeling of unease, such as worry or fear

Erectile dysfunction can often have both physical and psychological causes. For example, if you have diabetes, it may be difficult for you to get an erection, which may cause you to become anxious about the situation. The combination of diabetes and anxiety may lead to an episode of erectile dysfunction.

There are many emotional issues that may also affect your physical ability to get or maintain an erection. These include:

- relationship problems
- lack of sexual knowledge
- past sexual problems
- past sexual abuse
- being in a new relationship

## **Other causes**

Other possible causes of erectile dysfunction include:

- excessive alcohol intake
- tiredness
- using illegal drugs, such as cannabis, heroin or cocaine

## **Cycling**

Men who cycle for more than three hours per week may be recommended to try a period without cycling to see if this helps improve erectile dysfunction.

Riding in the correct position with a properly fitted seat may also help to prevent regular cycling from leading to erectile dysfunction.

## **Increased risk**

There are some things that can make erectile dysfunction more likely. These are very similar to the risks of [cardiovascular disease](#) and include:

- lack of exercise or physical activity
- [obesity](#)
- smoking
- [high cholesterol](#)

Erectile dysfunction itself can also be a sign of cardiovascular disease.