CONDITION

Erectile dysfunction

Erectile dysfunction is ongoing difficulty getting or keeping an erection firm enough for sex.

WHAT IT IS
Ongoing difficulty getting or keeping a firm erection

BODY SYSTEM
Reproductive, heart and circulation, nervous system

MAIN SYMPTOMS
Difficulty getting erections, losing firmness, erections too soft

WHAT CAUSES IT
Circulation, nerve, hormone, medication, or psychological factors

HOW IT IS DIAGNOSED
Sexual history, medical assessment, and targeted tests

MAIN TREATMENT
Cause treatment, medicines, devices, counselling, or surgery

CAN IT BE CURED?
Sometimes - reversible causes can be treated

IS IT AN EMERGENCY?
Sometimes - erection lasting over four hours

LONG-TERM OUTLOOK
Often manageable with treatment adjusted over time

Overview

Erectile dysfunction, often shortened to ED, means regularly having difficulty getting or keeping an erection firm enough for sexual activity. Occasional erection problems are common and can be caused by tiredness, stress, alcohol, or relationship concerns.

An erection depends on blood flow, nerves, hormones, thoughts, and emotions working together. A problem in any of these areas can contribute to ED, which may develop gradually or begin suddenly.

ED can affect confidence, relationships, and quality of life. It may also be an early sign of another health problem. Reduced blood flow to the penis can occur alongside blood vessel changes affecting the heart and brain. This does not mean everyone with ED has heart disease, but persistent symptoms should be assessed.

Many cases are treatable. Care may address an underlying condition, emotional wellbeing, erections directly, or several factors together.

Symptoms

The main symptom is repeated difficulty getting or maintaining an erection firm enough for the sexual activity you want.

You may notice:

ED does not always affect sexual desire, orgasm, or ejaculation, although these aspects of sexual function can influence one another.

The pattern may offer clues. Problems that develop slowly and occur in every situation may be linked to circulation, nerves, hormones, or medicines. Symptoms that begin suddenly or happen only in certain situations may have a stronger stress or psychological component. Physical and emotional factors often occur together.

- Erections take longer to develop or do not become fully firm
- An erection becomes softer before or during sex
- Erections happen only in certain situations
- Morning or sleep-related erections become less frequent
- Anxiety about whether an erection will happen

Causes and risk factors

Blood vessel problems are a common physical cause. An erection requires arteries in the penis to widen and fill with blood. Diabetes, high blood pressure, high cholesterol, smoking, and cardiovascular disease can damage or narrow these vessels.

Nerve problems may interrupt signals between the brain and penis. Causes include diabetes, multiple sclerosis, spinal cord conditions, pelvic injury, and surgery or radiation involving the prostate, bladder, or lower bowel.

Low testosterone can reduce sexual desire and contribute to erection problems. Thyroid or pituitary disorders may also affect sexual function.

Some medicines can cause or worsen ED, including certain antidepressants like sertraline or fluoxetine , blood pressure medicines, hormone treatments, and medicines affecting the nervous system. Do not stop prescribed medicine without medical advice. A different medicine

or dose may be possible.

Other contributors include:

Age alone does not make satisfying sexual activity impossible. Persistent ED should not be dismissed as an unavoidable part of ageing.

- Depression, anxiety, stress, or performance anxiety
- Relationship conflict or difficulty discussing sex
- Heavy alcohol use or recreational drugs
- Obesity, low physical activity, or poor sleep
- Peyronie's disease, which causes penile scarring and curvature
- Prostate or pelvic surgery
- Increasing age, mainly because related conditions become more common

Diagnosis

Diagnosis usually begins with a private discussion about symptoms, general health, medicines, and sexual wellbeing. You may be asked when the problem began, how often it happens, and whether you have morning or masturbation-related erections. Questions about desire, ejaculation, mood, stress, and relationships can help identify contributing factors.

An examination may include checking blood pressure, circulation, signs of hormone problems, and the penis and testicles. Your risk of diabetes and cardiovascular disease may also be assessed.

Blood tests may check blood sugar, cholesterol, and testosterone. Testosterone is usually measured in the morning because levels vary during the day. An abnormal result may need to be repeated before a hormone condition is diagnosed.

Most people do not need specialist tests. Penile Doppler ultrasound can assess blood flow before and after medicine is used to produce an erection. It may be considered when the cause is uncertain, after pelvic injury, or before certain treatments.

Because ED can be linked to cardiovascular disease, your clinician may assess whether sexual activity and ED treatment are safe for your heart. Some people need further heart evaluation before treatment.

Treatment and management

Treatment depends on the likely causes, general health, and your preferences. More than one approach may be needed.

Managing diabetes, blood pressure, cholesterol, or another underlying condition may improve erections and protect overall health. Physical activity, stopping smoking, limiting heavy alcohol use, and working toward a healthy weight can support blood vessel function, although improvement may not be immediate.

Counselling or sex therapy can help with anxiety, depression, past experiences, or relationship concerns. It can also address fear of another erection problem after ED began for a physical reason. A partner can participate if both people wish.

Phosphodiesterase type 5 inhibitors, or PDE5 inhibitors, are commonly used tablets. They include sildenafil, tadalafil, vardenafil, and avanafil. They support the normal blood-flow response to sexual stimulation but do not automatically cause an erection or increase desire.

Side effects may include headache, flushing, indigestion, stuffy nose, dizziness, and visual changes. PDE5 inhibitors must not be combined with nitrate medicines used for chest pain or with riociguat because blood pressure can fall dangerously. Other heart or blood pressure medicines may affect which treatment is safe.

Testosterone treatment may help when tests confirm testosterone deficiency and symptoms support the diagnosis. It is not a general ED treatment when testosterone levels are normal.

If tablets are unsuitable or ineffective, options include:

Injections and urethral medicines can cause a prolonged erection. An implant is generally considered when less invasive options have not worked or are unacceptable. It requires surgery and does not restore natural erections, but it can provide reliable firmness.

Online products marketed as "herbal" or "natural" sexual enhancers may contain undeclared prescription ingredients with unpredictable strengths and interactions.

- A vacuum erection device, which draws blood into the penis
- Medicine placed in the urethra
- Medicine injected into the side of the penis
- A surgically implanted penile prosthesis

Complications

ED can cause frustration, reduced self-esteem, avoidance of intimacy, and relationship tension. Communication and counselling can help reduce blame.

It may also leave an underlying condition, such as diabetes, high blood pressure, a hormone disorder, or cardiovascular disease, unrecognised.

Vacuum devices can cause bruising or discomfort. Injections may cause pain, scarring, or a prolonged erection. Implant surgery carries risks including infection and mechanical failure.

An erection lasting more than four hours is called priapism. Without prompt treatment, it can damage penile tissue.

Prevention

Not every case can be prevented, particularly when nerve injury, necessary pelvic treatment, or lasting health conditions are involved.

You can reduce some risks by not smoking, staying active, moderating alcohol, and managing diabetes, blood pressure, and cholesterol. Support for depression, anxiety, or persistent stress may also protect sexual wellbeing.

Ask for a medication review if you suspect a side effect, but do not stop treatment on your own.

Living with it and what to expect

ED may be temporary, recurring, or long-lasting. Symptoms related to short-term stress, medicine, or a treatable condition may improve when that factor changes. Lasting nerve or blood vessel damage may continue, but treatment can often make sexual activity possible.

The first treatment may not work. Tablets may need to be used correctly on several occasions before their effect is clear, and some people move to a device, injection, or implant.

Symptoms can vary with sleep, alcohol, stress, relationships, and control of other conditions. Intimacy also does not have to depend only on penetration or erection firmness. Discussing touch, stimulation, timing, and other sexual activity may help.

Routine follow-up may include checking whether treatment works, reviewing side effects, and monitoring cardiovascular or hormone-related concerns.

When to get medical help

Arrange a routine appointment if erection problems keep happening, cause distress, or affect your relationship. Seek assessment for reduced desire, penile pain or curvature, symptoms of

low testosterone, or a new problem after surgery or injury.

Seek prompt medical advice if ED begins suddenly after pelvic or genital trauma, or occurs with new weakness, numbness, or problems controlling your bladder or bowel.

Call emergency services if erection problems occur with chest pain, severe breathlessness, fainting, or other possible signs of a heart emergency.

Go to an emergency department for an erection lasting more than four hours, including one caused by ED medicine. Do not wait for it to settle.

Sudden loss of vision or hearing after taking an ED medicine also needs urgent medical assessment.

Common questions

Is erectile dysfunction a normal part of ageing?

ED becomes more common with age, but it is not something you must simply accept. Health conditions, medicines, circulation changes, and emotional factors may be involved, and treatment is often available.

Does erectile dysfunction mean I have heart disease?

Not necessarily. However, ED and cardiovascular disease share risk factors such as diabetes, smoking, high blood pressure, and high cholesterol. Persistent ED is a reason to review heart and blood vessel health.

Can stress really cause erectile dysfunction?

Yes. Stress and anxiety can disrupt the brain signals needed for an erection. Worry after one difficult experience can make the problem recur. Physical and psychological causes often overlap.

Why can I get an erection alone but not with a partner?

Performance anxiety, relationship concerns, the situation, or differences in stimulation may contribute. This pattern does not prove the cause is entirely psychological. Seek assessment if it continues.

Do erectile dysfunction pills work without sexual stimulation?

No. PDE5 inhibitors support the natural erection response, so sexual stimulation is still needed. They do not directly increase desire.

Can erectile dysfunction be cured permanently?

Sometimes. ED may improve when a contributing medicine is changed or a hormone,

emotional, or health problem is treated. Lasting nerve or blood vessel damage may not be reversible, but treatment can manage its effects.

Sources

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