CONDITION

Foot drop

Foot drop is difficulty lifting the front of the foot because of weakness or paralysis.

WHAT IT IS
Weakness or paralysis when lifting the front of the foot

BODY SYSTEM
Nervous system and muscles

MAIN SYMPTOMS
Toe dragging, high-stepping walk, foot slapping, frequent tripping

WHAT CAUSES IT
Nerve injury, spinal problems, brain conditions, or muscle disorders

HOW IT IS DIAGNOSED
Physical examination; nerve tests and imaging identify the cause

MAIN TREATMENT
Treating the cause, physiotherapy, braces, and sometimes surgery

CAN IT BE CURED?
Sometimes - treatable causes may recover

IS IT AN EMERGENCY?
Sometimes - sudden onset with stroke or spinal warning signs

LONG-TERM OUTLOOK
Recovery reflects the cause and severity of nerve damage

Overview

Foot drop means having difficulty lifting the front of your foot and toes. The foot may drag as you walk, or you may lift your knee higher than usual to stop your toes catching the ground.

It is a condition rather than a disease. It occurs when the nerves or muscles involved in lifting the foot do not work normally. The problem may be in the leg, lower back, brain, or spinal cord.

Foot drop can affect one or both feet. It may appear suddenly after an injury or nerve compression, or develop gradually because of another condition. It raises the risk of tripping, so identifying and treating the cause is important.

Symptoms

The main symptom is difficulty pulling the foot upward at the ankle, a movement called dorsiflexion. You may also have trouble lifting your toes.

Common effects include:

Other symptoms depend on the cause. A compressed nerve may cause numbness or tingling over the shin or top of the foot. A nerve problem in the lower back may cause back pain or pain travelling down the leg.

Foot drop related to the brain or spinal cord may occur with stiffness, balance problems, or weakness elsewhere. It does not always cause pain.

- Dragging or catching the toes while walking
- Lifting the knee unusually high, called a high-stepping gait
- The foot slapping down instead of landing in a controlled way
- Tripping, especially on stairs, curbs, or uneven ground
- Difficulty walking on your heel
- Weakness when moving the foot outward

Causes and risk factors

The muscles that lift the foot receive signals through nerves beginning in the lower back and running down the leg. Damage anywhere along this pathway can cause foot drop.

A common cause is injury or pressure on the common peroneal, or fibular, nerve. It passes close to the skin near the outside of the knee and can be affected by:

A pinched nerve in the lower back is another possible cause. A slipped or herniated disc may press on a spinal nerve, often the L5 nerve root. Spinal stenosis can have a similar effect.

Other causes include:

Having one of these conditions does not mean you will develop foot drop. Sometimes more than one problem contributes.

- A knee or leg injury or surgery
- A tight cast or splint
- Prolonged bed rest
- Frequent leg crossing
- Long periods of squatting or kneeling

- Rapid or substantial weight loss, which reduces padding around the nerve
- Peripheral neuropathy, including diabetes-related nerve damage
- Stroke or another brain injury
- Multiple sclerosis
- Spinal cord disease or injury
- Motor neurone diseases
- Inherited nerve conditions, such as Charcot-Marie-Tooth disease
- Muscle diseases, including some muscular dystrophies

Diagnosis

Foot drop is usually recognised during a physical examination. You may be asked to walk normally, walk on your heels, or move your foot against resistance. The examination may assess reflexes, sensation, muscle strength, balance, and movement of your back and joints.

The pattern of weakness and numbness can help locate the problem. Tests may include:

Nerve conduction studies and EMG are often performed together. They may show where damage occurred, how severe it is, and whether there are signs of recovery. Not everyone needs every test.

- Nerve conduction studies to measure electrical signals through nerves
- Electromyography, or EMG, to record electrical activity in muscles
- MRI to look for a slipped disc, spinal narrowing, brain condition, or soft-tissue mass
- Ultrasound to examine a nerve near the knee or ankle
- X-rays or CT scans for a suspected bone injury or structural problem
- Blood tests for conditions that can damage nerves or muscles

Treatment and management

Treatment focuses on the cause, protecting the foot, and making walking safer. If pressure on a nerve is responsible, removing it may allow recovery. A lower-back problem may be treated with activity changes, rehabilitation, pain management, or a procedure when appropriate. Conditions affecting nerves or muscles may need specific treatment.

An ankle-foot orthosis, or AFO, is a brace worn around the lower leg and foot. It holds the foot in a useful position and reduces toe dragging. Correct fitting is important because a poorly fitting brace can rub or damage the skin.

Physiotherapy may maintain ankle movement, strengthen working muscles, improve balance, and help you practise a safer walking pattern. Stretching can reduce tightening of the calf and Achilles tendon. Some people also benefit from a walking stick, frame, or another mobility aid.

Functional electrical stimulation sends small impulses to a nerve during walking to help lift the foot. It is suitable only when the relevant nerve and muscle pathway can respond.

Surgery may be considered when a nerve is trapped, cut, or unlikely to recover without repair. For long-standing foot drop, tendon transfer surgery can redirect a working tendon to help lift the foot. An operation to stabilise the ankle is occasionally used when other options are unsuitable.

Treatment may therefore include:

- Care for the underlying nerve, spine, brain, or muscle condition
- An ankle-foot brace or mobility aid
- Physiotherapy, stretching, and gait training
- Electrical stimulation in selected cases
- Nerve, tendon, or joint surgery in selected cases

Complications

Toe dragging increases the risk of tripping and falling. Changing your walking pattern can also strain the knee, hip, or lower back.

The calf muscles or Achilles tendon may tighten over time, making it harder to place the foot flat even if nerve function improves. Numbness may prevent you noticing cuts, pressure, or blisters.

Check the skin regularly, especially if sensation is reduced or you wear a brace. Foot drop can also affect work, driving, exercise, and confidence, although rehabilitation and suitable equipment can reduce these effects.

Prevention

Foot drop cannot always be prevented. Inherited disorders, multiple sclerosis, stroke, and

some injuries are not fully within your control.

Avoiding prolonged pressure around the outside of the knee may reduce the risk of peroneal nerve compression. Change position during prolonged bed rest, and avoid extended leg crossing, deep squatting, or kneeling if these cause numbness or weakness.

A cast, splint, or brace should not feel excessively tight. New numbness, increasing pain, colour changes, or weakness while wearing one needs prompt assessment.

Managing conditions such as diabetes may reduce further nerve injury but cannot guarantee prevention. If foot drop is already present, use handrails, remove trip hazards, improve lighting, and wear secure footwear to reduce falls.

Living with it and what to expect

The outlook depends mainly on the cause. A mildly compressed nerve may improve after pressure is removed. A severely injured or divided nerve may recover only partly or not at all. Foot drop caused by an ongoing neurological or muscle condition may remain stable, fluctuate, or gradually change.

Nerves recover slowly. When recovery is possible, improvement may take months and continue for a year or longer. Early signs may be subtle, such as less toe catching or a small return of movement. Follow-up examinations and sometimes repeat nerve tests can assess progress.

A brace does not repair the nerve, but it can make walking safer during recovery or provide long-term support. Physiotherapy may need to change as strength, joint movement, or daily activities change.

Many people continue working, exercising, and managing daily tasks with a brace or mobility aid. Extra care may be needed on stairs, uneven ground, ladders, or during activities involving quick changes of direction.

Routine follow-up should review recovery, falls, skin problems, brace fit, joint stiffness, and changing mobility needs. Do not assume that a new or worsening symptom is simply part of existing foot drop.

When to get medical help

Call emergency services if foot drop appears suddenly with possible stroke signs, including facial drooping, arm weakness, difficulty speaking, sudden vision loss, severe loss of balance,

or an unusual severe headache.

Emergency assessment is also needed for foot drop with signs of serious pressure on the nerves at the bottom of the spine. These include new loss of bladder or bowel control, numbness around the genitals or buttocks, or rapidly worsening weakness in both legs.

Seek urgent assessment after a major back, hip, knee, or leg injury, particularly if the foot is weak, numb, cold, pale, or very painful.

Arrange a prompt medical assessment for new, unexplained foot drop, even if it is painless. Seek prompt review if weakness is spreading, worsening, or accompanied by significant back or leg pain.

When the cause is known and symptoms are stable, attend routine follow-up. Report repeated falls, reduced walking ability, joint tightening, or brace problems. Persistent redness, broken skin, or a sore beneath a brace should be assessed rather than left until the next routine visit.

Common questions

Can foot drop go away on its own?

Sometimes. Foot drop caused by temporary nerve pressure may improve after the pressure is removed. Recovery is less likely with severe nerve damage or an ongoing brain, spinal cord, nerve, or muscle condition. Medical assessment is needed to identify the cause.

Is foot drop always caused by a trapped nerve?

No. Peroneal nerve compression near the knee is common, but foot drop can also result from a pinched nerve in the lower back, peripheral neuropathy, stroke, multiple sclerosis, spinal cord disease, or a muscle disorder.

Can I still walk with foot drop?

Many people can walk, but toe dragging makes falls more likely. A fitted ankle-foot brace, physiotherapy, secure shoes, or a mobility aid may help. Falls or repeated near-falls mean your walking support should be reviewed.

What shoes are best for foot drop?

Choose shoes that fasten securely, provide room for a brace, and have a stable, non-slip sole. Loose slippers, high heels, and shoes that catch on the ground may increase tripping. A brace fitter or physiotherapist can check footwear compatibility.

Can I drive with foot drop?

Foot drop may affect how quickly and reliably you operate the accelerator, brake, or clutch. Do not drive if you cannot control the pedals safely. Driving rules and reporting requirements vary

by location, and you may need a practical driving assessment or vehicle adaptation.

Does foot drop mean I have multiple sclerosis or a stroke?

Not necessarily. Both can cause foot drop, but problems affecting the peroneal nerve or a nerve root in the lower back are also possible. Sudden foot drop with facial, arm, speech, vision, or balance changes needs emergency assessment for stroke.

Sources

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