CONDITION

Pudendal neuralgia

Pudendal neuralgia is long-lasting pelvic nerve pain, often made worse by sitting.

WHAT IT IS
Chronic pain involving the pudendal nerve

BODY SYSTEM
Nervous system and pelvis

MAIN SYMPTOMS
Burning perineal pain, sitting pain, genital tingling, rectal pressure

WHAT CAUSES IT
Pudendal nerve irritation or compression; sometimes unknown

HOW IT IS DIAGNOSED
Clinical criteria, examination, and response to diagnostic nerve block

MAIN TREATMENT
Pressure reduction, pelvic physiotherapy, nerve-pain medicines, and procedures

CAN IT BE CURED?
Sometimes - pain improves with tailored treatment

IS IT AN EMERGENCY?
Sometimes - new bladder retention or leg weakness

LONG-TERM OUTLOOK
Many improve gradually; some have persistent pain

Overview

Pudendal neuralgia is pain linked to irritation or injury of the pudendal nerve. "Neuralgia" means nerve pain.

The pudendal nerve runs from the lower spine through the pelvis. It carries sensation from the area between the genitals and anus, called the perineum. It also supplies parts of the vulva, vagina, penis, scrotum and rectum. Some branches help control the muscles used for urination and bowel movements.

Pain often becomes worse while sitting because this places pressure on the nerve and nearby tissues. Symptoms can affect work, travel, exercise, sleep, sex and bowel habits.

Pudendal neuralgia is sometimes described as pudendal nerve entrapment. However, these terms do not mean exactly the same thing. Neuralgia describes the pain. Entrapment means

the nerve is being compressed at a specific point. A person can have pudendal neuralgia without proven entrapment.

Symptoms

The main symptom is pain in the area supplied by the pudendal nerve. It may affect one side or both sides.

The pain may feel burning, shooting, stabbing, electric or raw. Some people describe tingling, increased sensitivity, numbness, pressure or the feeling that something is inside the vagina or rectum.

Typical features include:

Some people also experience urinary urgency, frequent urination or difficulty relaxing the pelvic floor. These symptoms can have many other causes, so they do not establish the diagnosis by themselves.

Complete loss of bladder or bowel control is not a usual feature of pudendal neuralgia. Sudden loss of control, new leg weakness or widespread numbness around the inner thighs and genitals needs urgent assessment for another nerve or spinal problem.

- Pain between the anus and genitals
- Pain that becomes worse while sitting
- Improvement when standing, lying down or sitting on a toilet seat
- Genital, rectal or perineal sensitivity
- Pain during or after sex, orgasm or ejaculation
- Pain with bowel movements or when the bladder is full

Causes and risk factors

The pudendal nerve can become irritated where it passes between pelvic ligaments or through a narrow passage called the pudendal canal, also known as Alcock's canal. In some cases, scar tissue, inflammation or tight pelvic floor muscles may place pressure on the nerve.

Possible triggers or contributing factors include:

These factors do not always cause pudendal neuralgia. Many people cycle, give birth or have pelvic surgery without developing it. In some cases, no clear cause is found.

Pudendal neuralgia is not generally considered an inherited condition.

- Pelvic surgery or scarring
- Childbirth-related stretching or injury
- A fall or other pelvic trauma
- Long periods of cycling, horse riding or sitting
- Repeated straining from constipation
- Pelvic floor muscles that remain tense
- A growth or another structural problem pressing on the nerve

Diagnosis

There is no single scan, blood test or electrical test that proves every case of pudendal neuralgia. Diagnosis is based mainly on the pattern of symptoms, an examination and the exclusion of other causes.

A healthcare professional may ask where the pain occurs, what it feels like and whether sitting makes it worse. They may examine the back, hips, abdomen, skin, nerves and pelvic floor. A pelvic or rectal examination may be offered to check for muscle tension and tenderness along the pudendal nerve. This should be explained beforehand and carried out only with your consent.

A commonly used set of diagnostic features is known as the Nantes criteria. Its main features are pain in the pudendal nerve area, pain made worse by sitting, pain that does not usually wake the person directly from sleep, no clear loss of sensation on examination, and pain relief after a correctly placed pudendal nerve block. Not everyone has every feature.

A nerve block is an injection of local anaesthetic around the pudendal nerve, usually guided by ultrasound, X-ray or a CT scan. Temporary relief supports the diagnosis. However, a block may miss the nerve, and relief does not always prove that the nerve is trapped.

MRI or other imaging may be used to look for a pelvic mass, spinal problem or another cause of pain. Scans often appear normal in pudendal neuralgia. Nerve function tests may provide supporting information, but they cannot reliably confirm or exclude the condition.

Other possible explanations include pelvic floor muscle pain, vulvodynia, bladder pain syndrome, chronic prostatitis or chronic pelvic pain syndrome, endometriosis, coccyx pain, skin conditions, infection and pain coming from the spine or hip.

Treatment and management

Treatment aims to reduce pressure on the nerve, settle pain and improve daily function. It often combines several approaches. Improvement may be gradual.

Activity changes can help reduce repeated pressure on the perineum. This may include limiting long periods of sitting, changing position regularly and temporarily reducing activities that clearly worsen symptoms. A U-shaped or cut-out cushion may remove pressure from the painful area. A ring-shaped cushion may increase pressure in some people.

Pelvic health physiotherapy may help when tight or poorly coordinated pelvic floor muscles are contributing to pain. Treatment can include breathing work, relaxation, gentle movement and manual therapy. Pelvic floor strengthening exercises are not suitable for everyone and may aggravate symptoms if the muscles are already overactive.

Medicines used for other types of nerve pain may be offered. These include certain antidepressant or antiseizure medicines that alter pain signalling. They are being used for their effect on nerves, not because the pain is imagined. Side effects and other health conditions affect which option is appropriate. Ordinary painkillers may help some people but are often less effective for nerve pain.

An image-guided pudendal nerve block may be used for diagnosis and temporary pain relief. Some injections include a corticosteroid like prednisone or hydrocortisone intended to reduce inflammation. Relief may be brief, long-lasting or absent. Possible risks include bleeding, infection, temporary numbness and a short-term increase in pain.

Specialist pain services may offer psychological therapy alongside physical treatment. This can help with pacing, sleep, distress and the effects of persistent pain. It does not mean that symptoms are "all in your head."

Surgical decompression aims to release a pudendal nerve thought to be trapped. It is generally considered only after careful specialist assessment when other treatments have not provided enough relief. Surgery does not guarantee recovery, and improvement may take months.

Other procedures, including nerve stimulation and pulsed radiofrequency treatment, are available in some specialist centres. Evidence about who benefits and how long relief lasts remains limited.

Complications

Persistent pain can make sitting, working, travelling and exercising difficult. It may affect sexual relationships, bowel habits, sleep and emotional health. Avoiding movement because of pain can also lead to reduced fitness and increased muscle tension.

Long-lasting nerve pain can make the nervous system more sensitive. This is sometimes called central sensitisation. It means pain signals become easier to trigger; it does not mean that the pain is imaginary.

Procedures and surgery can cause complications such as bleeding, infection, numbness, scarring or increased pain. A specialist should explain the expected benefits and uncertainties before treatment.

Prevention

Pudendal neuralgia cannot always be prevented, especially when it follows necessary surgery, childbirth or an injury. There is no proven prevention method for every case.

Reducing long periods of direct perineal pressure may help. Cyclists may benefit from reviewing saddle shape, bike fit, riding position and training load. Regular standing breaks can reduce pressure during seated work.

Managing constipation may reduce repeated straining. If an activity repeatedly causes pelvic numbness or pain, stopping and allowing symptoms to settle is more appropriate than continuing through it. These steps may reduce irritation, but they cannot guarantee prevention.

Living with it and what to expect

The course differs from person to person. Symptoms may fluctuate over months or years, with periods of improvement and flare-ups. Recovery is often gradual rather than immediate.

Some people improve with pressure reduction, physiotherapy, medication or a nerve block. Others need specialist procedures. A smaller group continues to have significant pain despite treatment. Pudendal neuralgia does not usually shorten life or progressively damage internal organs.

Complete avoidance of sitting or activity can be hard to maintain and may lead to loss of strength. Pacing often works better: alternate positions, plan breaks and increase tolerated activity in small steps. Workplace changes may include a sit-stand desk, a suitable cushion, remote work or extra movement breaks.

Keeping a brief record of sitting time, activities and symptoms can help identify patterns. It may also help you judge whether a treatment is improving function, rather than focusing only on a single pain score.

When to get medical help

Arrange a routine medical appointment if pelvic, genital or rectal pain persists, keeps returning or interferes with sitting, sleep, sex, urination or bowel movements. Assessment is also appropriate if you have unexplained numbness or symptoms that started after pelvic surgery, childbirth or an injury.

Seek earlier review if symptoms are rapidly worsening, you develop increasing numbness, or treatment causes fever, swelling, discharge or severe new pain.

Get urgent or emergency help for:

These are not typical signs of uncomplicated pudendal neuralgia. They may indicate pressure on spinal nerves, a serious injury or another condition needing prompt assessment.

- New inability to pass urine
- New loss of bladder or bowel control
- Numbness around the genitals or inner thighs with leg weakness
- Severe pelvic or back pain after a major injury
- Sudden neurological symptoms that are different from your usual pain

Common questions

Is pudendal neuralgia the same as pudendal nerve entrapment?

No. Pudendal neuralgia means pain associated with the pudendal nerve. Entrapment is one possible cause in which the nerve is compressed. Symptoms may also come from nerve irritation, injury, scar tissue or nearby muscle tension without proven entrapment.

Can an MRI show pudendal neuralgia?

An MRI may identify a mass, scar tissue, spinal condition or another structural cause. However, many people with suspected pudendal neuralgia have a normal scan. MRI is usually more helpful for excluding other conditions than confirming the diagnosis.

Does pudendal neuralgia go away?

Symptoms can improve or settle, particularly when a trigger can be reduced and contributing pelvic floor problems are treated. Some people have persistent or recurring pain. No single treatment works for everyone, and improvement may take months.

Can pudendal neuralgia cause bladder or bowel problems?

It may be associated with urgency, discomfort when the bladder is full, pain during bowel

movements or difficulty relaxing the pelvic floor. Sudden inability to urinate or new loss of bladder or bowel control is not typical and requires urgent assessment.

Can I exercise or cycle with pudendal neuralgia?

Movement is usually still important, but activities that place direct pressure on the perineum may need to be reduced or adapted. Walking, swimming or other low-pressure activities may be better tolerated. A gradual return is more sensible than exercising through increasing numbness or pain.

Is surgery the only way to release the nerve?

No. Many people are treated without surgery through activity changes, pelvic physiotherapy, nerve-pain medicines and injections. Decompression surgery is reserved for carefully selected cases where entrapment is considered likely and less invasive treatment has not been enough.

Sources

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