CONDITION

Fibrous cavernositis

Fibrous cavernositis is scar tissue in the penis that can cause curvature, narrowing, pain, or erection problems.

WHAT IT IS
Fibrous scar tissue that bends or narrows the erect penis

BODY SYSTEM
Reproductive and urinary system

MAIN SYMPTOMS
Penile curve, hard plaque, painful erections, shortening

WHAT CAUSES IT
Abnormal scarring, often after minor injury

HOW IT IS DIAGNOSED
Medical history, penis examination, and erection assessment

MAIN TREATMENT
Monitoring, traction devices, specialist injections, or surgery

CAN IT BE CURED?
Sometimes - surgery can correct stable deformity

IS IT AN EMERGENCY?
Sometimes - sudden injury or four-hour erection

LONG-TERM OUTLOOK
Often stabilises, but curvature or shortening may remain

Overview

Fibrous cavernositis is a condition in which firm scar tissue develops in the penis. The scar usually forms in the tunica albuginea, the strong covering around the chambers that fill with blood during an erection.

Scar tissue does not stretch like healthy tissue. During an erection, the affected area may pull more tightly than the rest of the penis, causing curvature, shortening, narrowing, an indentation, or an "hourglass" shape. The scar may feel like a firm plaque or flat lump beneath the skin.

Medical guidance commonly calls this condition Peyronie's disease.

Fibrous cavernositis is not cancer or a sexually transmitted infection, and it cannot be passed

to a partner. However, any new penile lump or change in shape should be examined because other conditions can look similar.

A mild, stable curve that does not cause pain or interfere with sex may not require active treatment. Treatment is more likely to be considered when pain, deformity, erection problems, or distress affect quality of life.

Symptoms

Symptoms are usually most noticeable when the penis is erect. They may develop gradually or appear more suddenly.

Possible symptoms include:

The penis may look and feel normal when soft, although a plaque can sometimes be felt without an erection.

Not every penile curve is fibrous cavernositis. Some people have had a curve since puberty. This is called congenital curvature and does not involve newly formed scar tissue. A new or changing curve later in life should be medically assessed.

- A new upward, downward, or sideways curve
- A firm plaque, ridge, or flat lump beneath the penile skin
- Pain during erections, particularly early in the condition
- Shortening or loss of girth
- Narrowing, indentation, or an hourglass shape
- A hinge-like area where the erect penis bends or buckles
- Difficulty getting or keeping an erection
- Difficulty with penetration or discomfort during sex

Causes and risk factors

The exact cause is not always known. In many cases, the condition is thought to follow repeated minor bending or injury to an erect penis, sometimes during sex. There may be no memorable injury.

Normally, damaged tissue heals while remaining flexible. In fibrous cavernositis, the healing response produces a thicker and less flexible scar. Differences in inflammation and wound

healing may explain why most minor penile injuries do not cause the condition.

Factors associated with a higher likelihood include:

These factors do not establish the cause in an individual person. Many people have no known injury, family history, or related condition.

- Previous penile injury
- Increasing age
- A close family history
- Dupuytren's contracture, which causes thickened tissue in the palm
- Other conditions involving abnormal scar tissue
- Diabetes, smoking, or blood-vessel disease, which can also affect erections

Diagnosis

There is no single blood test for fibrous cavernositis. Diagnosis is usually based on symptoms, a physical examination, and an assessment of the erect penis.

A clinician may ask when the changes began, whether the shape is worsening, and whether you have pain or erection difficulties. They may examine the soft penis to locate and measure the plaque.

Curvature must be assessed during an erection. You may be asked to bring securely stored photographs taken at home from different angles. In a specialist clinic, an erection may instead be produced with an injection so the shape and erection quality can be examined directly.

Ultrasound may be used when more information is needed. It can show plaque, calcium within the scar, and penile blood flow, but it is not required in every case.

The assessment also helps distinguish fibrous cavernositis from congenital curvature, recent injury, and less common causes of penile lumps.

Treatment and management

Treatment depends on pain, deformity, erection quality, and the effect on sex and wellbeing. A urologist can explain the available options.

The condition often has an early active phase, during which pain or curvature may change. A stable phase begins when pain has settled and the shape has stopped changing. Surgery is generally considered only after the deformity has been stable.

Monitoring may be appropriate if the curve is mild and does not interfere with sex. Follow-up helps document changes in pain, shape, penile length, or erection quality.

Pain during the active phase may be treated with standard pain-relieving or anti-inflammatory medicines when these are safe for you. Ask a clinician or pharmacist before using anti-inflammatory medicines if you have kidney disease, stomach ulcers, a bleeding disorder, or take blood-thinning medicine. Pain often improves before the plaque or curvature does.

A penile traction device applies controlled stretching and may reduce curvature or help preserve length for some people. It must be used correctly and consistently. Results are not guaranteed, and uncontrolled stretching or forcing the penis straight may cause injury. A urology service can recommend an appropriate medical device and explain how long to use it.

Specialist injections can place medicine directly into the plaque. Collagenase, an enzyme that breaks down collagen, is available in some countries for selected people with a palpable plaque and certain types of curvature. Treatment may include clinician-guided modelling or stretching. Bruising and swelling are common. Serious tearing of penile tissue is uncommon but requires urgent assessment. Other injected medicines are sometimes used, although evidence and availability vary.

There is little good evidence that oral vitamin E or similar supplements straighten the penis. Supplements can cause side effects and interact with medicines.

Surgery may be considered when the condition is stable and deformity prevents comfortable sex. Options include:

Possible trade-offs include further shortening, reduced sensation, erection problems, recurrence, or incomplete straightening. The best approach depends on the deformity, penile length, and erection quality.

Counselling or sex therapy may help when changed appearance, pain, or performance worries affect confidence or relationships. It can be used alongside physical treatment.

- Plication: stitches shorten the longer side to straighten the penis
- Plaque incision or removal with grafting: the tight area is opened or removed and covered with replacement tissue
- Penile implant surgery: an option when significant erection problems occur alongside curvature

Complications

A severe curve, narrowing, or unstable hinge area can make penetration difficult, painful, or

impossible.

Erection problems may result from altered blood flow, difficulty trapping blood, pain, or anxiety. Diabetes, blood-vessel disease, and other health conditions may also contribute.

Loss of length or a visible change in shape can cause embarrassment, low mood, distress, or relationship tension.

Fibrous cavernositis does not directly reduce sperm production. However, conception through intercourse may become more difficult if penetration or ejaculation during sex is not possible.

Prevention

Fibrous cavernositis cannot always be prevented, and no routine medicine or supplement has been proven to stop it developing.

Avoiding forceful bending of an erect penis may reduce injury. During sex, stop if the penis slips out or is pushed at an awkward angle. Adequate lubrication and positions that provide more control may limit buckling, although they cannot guarantee prevention.

Managing diabetes, avoiding smoking, and treating high blood pressure or cholesterol support blood-vessel and erection health. These measures have not been shown to prevent every case.

Living with it and what to expect

The active phase usually lasts for several months and can continue beyond a year. Pain may improve while curvature, narrowing, or shortening continues to change. In the stable phase, the shape has stopped changing, but the scar has not necessarily disappeared.

Established plaque and curvature are unlikely to resolve completely without treatment, although some people experience partial improvement. Mild curves may have little effect on sex, while more significant deformity may require treatment.

Periodic measurements or securely stored photographs can help you and your clinician assess changes. Do not repeatedly force the penis straight.

Sexual activity can usually continue if it is comfortable. Slower movement, lubrication, and positions that limit bending may help. Stop if there is sharp pain, sudden buckling, or an unexpected bend.

Routine follow-up is important while symptoms are changing, after starting traction or injection treatment, and when considering surgery. Once the condition is stable, follow-up can

be based on symptoms and its effect on your life.

When to get medical help

Arrange a routine medical appointment if you notice a new penile lump, curve, indentation, shortening, or painful erections. Seek assessment if the shape is worsening, sex has become difficult, or you have problems getting or keeping an erection.

After an injection or procedure, seek prompt medical advice for worsening redness, warmth, discharge, fever, difficulty urinating, or severe pain.

Go to an emergency department if:

A sudden injury may be a penile fracture-a tear in the strong covering of the erection chambers. This differs from gradual scarring and requires urgent assessment.

- An erect penis bends suddenly with a pop or cracking sensation, followed by rapid loss of the erection, swelling, or bruising
- An erection lasts four hours or longer
- Swelling increases rapidly, pain is severe, or penile tissue darkens after an injury or procedure

Common questions

Is fibrous cavernositis cancer?

No. The plaque is scar tissue, not cancer, and it does not spread through the body. A new or unexplained lump should still be examined to confirm the cause.

Can fibrous cavernositis go away on its own?

Pain often improves, but plaque, shortening, or curvature may remain. Some people notice partial improvement in shape, but the course cannot be predicted precisely.

Can I still have sex?

Many people can, particularly when the curve is mild and erections remain firm. Lubrication and positions that reduce bending may help. Seek a urology assessment if sex causes pain, repeated buckling, or difficulty with penetration.

Will sex make the curve worse?

Comfortable sex has not been shown to worsen every case. However, forceful bending or buckling can cause injury. Stop if there is sudden sharp pain or an unexpected bend.

Does it cause erectile dysfunction?

It can. Scar tissue may affect penile shape or blood trapping, while pain and anxiety may interfere with erections. Other health conditions can contribute, so erection problems should be assessed.

Can I have children with this condition?

The condition does not directly reduce sperm production. Natural conception may be more difficult if curvature or erection problems prevent intercourse. Fertility advice is available if needed.

Sources

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- Chung E, Ralph D, Kagioglu A, et al. Evidence-Based Management Guidelines on Peyronie's Disease . Journal of Sexual Medicine. 2016;13(6):905-923. doi:10.1016/j.jsxm.2016.04.062