Peyronie's Disease

This is a condition in which patches of scar tissue (fibrous plaques) develop along the shaft of the penis. This can result in changes in the shape (bending or deformity) of the penis, painful erections and difficulties with having sex (intercourse). The disease was named after the French surgeon François Gigot de la Peyronie who described it in 1743. The options for treatment include medicines taken by mouth, applied to the surface of the penis or injected into the scar tissue. Stretching, electrical treatment, lasers and surgery are other options. In rare cases, the condition may clear up completely but most men find that it either stays the same or becomes worse over time.

What is Peyronie's disease?

Peyronie's disease is a condition in which scar tissue (fibrous plaques) develop along the shaft of the penis. These plaques cause the penis to curve or to adopt an hourglass shape. The change in shape is usually only obvious when the penis is erect.

What causes Peyronie's disease?

The cause is not known but it has been suggested that one-off or repeated damage to blood vessels causes leakage into areas of the penis which do not usually come into contact with blood. This triggers an attack by the body’s immune system, resulting in scarring. Other suggestions are that there is a defect in the person's genetic make-up or associated with low levels of the male hormone testosterone. ‘Genetic’ means that the condition is passed on through families through special codes inside cells called genes. There is also a form in which a baby is born with the condition (congenital) but this is not recognised until sexual maturity develops.

Who develops Peyronie's disease?

The exact number of men who develop Peyronie's disease is not known, as some may be too embarrassed to see their doctor about the condition. However, it is thought that it affects between 3-9 men out of a 100. It usually appears in men in their fifties. The congenital form is rare. A small number of teenagers also develop the disease.

Are any other conditions seen in people who develop Peyronie's disease?

Peyronie's disease is seen more frequently in people who have diabetes, high blood pressure (hypertension), hyperlipidaemia, conditions affecting the heart muscle and Dupuytren's contracture (a thickened band of fibrous tissue develops across the palm). It is seen more commonly in people who smoke or drink a lot.

What are the symptoms of Peyronie's disease?

If you develop Peyronie's disease, the first problem you may notice is painful erections and areas of thickening along the shaft of the penis. You may notice that the penis starts to become curved, angled or distorted. This is most obvious when the penis is erect but can occasionally be seen even when it is soft (flaccid). This period of pain with erection usually lasts 18-24 months and is known as the inflammatory phase. This is followed by a fibrotic stage in which the pain settles but scarring continues to develop and the distortion of the penis continues. About half the men who develop Peyronie's disease also develop depression.
How is Peyronie's disease diagnosed?

The typical symptoms of painful erections and curvature, angulation or deformity of the shaft are usually enough for a doctor to suspect that you have the disease. The doctor will usually want to measure the bend or distortion of the penis whilst it is erect. This can be assessed by either of two methods:

- Photographs you have taken at home.
- More accurately, by use of a vacuum pump or injection into the shaft, in the surgery, to stimulate an erection.

Your doctor may ask you to complete a short questionnaire to assess how much the condition is impacting on your life.

Do I need any tests for Peyronie's disease?

In most cases it is not necessary to do any other tests but, occasionally, you may be asked to undergo a type of scan called a duplex ultrasound which shows up the blood circulation of the penis.

What are the treatment options for Peyronie's disease?

You may decide that you do not want any treatment if:

- You have a mild version of the disease which does not cause much pain.
- You are not sexually active.
- You have few or no difficulties with sexual intercourse.

There are many non-surgical treatments available for Peyronie's disease but research has so far failed to prove that they are guaranteed to work in all people.

**Stretching:** the technical name for this is external penile traction. It involves wearing a device which stretches the penis. It has shown some effect in improving the length of the penis and lessening deformity.

**Vacuum devices:** these work in a similar way to traction devices by creating a vacuum around the penis, which stretches the shaft.

**Medicines taken by mouth:** medicines tried in the past for this condition include para-aminobenzoate, colchicine, propoleum, pentoxifylline, vitamin E, tamoxifen and acetyl-L carnitine. Only para-aminobenzoate has the backing of European guidelines and a UK licence to be used for this condition.
Medicines applied to the surface of the penis: topical verapamil has been used with some success in reducing the amount of curvature and thickening of the fibrous tissue. However, it needs to be used for about nine months to have any significant effect.

Medicines injected into the scar tissue (fibrous plaques): various medicines have been tried, including verapamil, interferon and a substance called clostridial collagenase (recently approved by the FDA in the USA). Research studies have reported some improvement in pain, the size of the plaques and the amount of bend of the penis after these injections.

Electrical currents: the technical term for this treatment is iontophoresis. A medicine is applied to the surface of the penis and a mild electrical current is applied. The idea behind this is to help the medicine penetrate into the deeper tissues of the penis, where they will have the greatest effect. Some research studies report that this method has some benefits whilst others say it has little effect.

Surgery
Surgery is the only treatment guaranteed to have a beneficial effect on Peyronie's disease. However, it would only be offered to you once the changes caused by the condition had settled down. This normally takes 12-18 months. Surgery is not without risks and can include shortening of the penis and a chance that the distortion will return. If your foreskin is already tight, you may need a circumcision to prevent it becoming even tighter after the operation. Some people can feel knots or stitches under the skin. You should consider all these issues carefully before consenting to surgery.

There are various options available:

- **Extracorporeal shock-wave therapy.** This uses vibrations from sound waves to break down the tough fibrous plaques. The sound waves are delivered by a device outside the body. You may be offered sedation during the procedure. The technique is safe but its effects are uncertain.

- **'Cold steel' surgery** This means surgery involving conventional surgical instruments. Several operations are available including:
  - **The Nesbit tuck procedure** - this involves removing some tissue from the side of the penis opposite the plaque. This has the effect of straightening but shortening the penis.
  - **Plication** - this involves folding the normal tissue on itself rather than removing it completely.
  - **Cutting out the plaque** - this sometimes is combined with the insertion of a plastic rod (prosthesis) to counteract any shortening.
  - **Laser surgery** - a carbon dioxide laser is used to thin the plaque.

What is the outlook (prognosis) for Peyronie's disease?

One research study found that only 13 out of a 100 men got better completely without treatment. Of the rest, half had mild but continuing symptoms and the other half had increasing amounts of pain and/or curvature of the penis. With treatment, the situation can often be improved. However, more research is needed to investigate the effect of the various available treatments on prognosis.

Further reading & references

- Guidelines on Penile Curvature; European Association of Urology (2015)

Disclaimer: This article is for information only and should not be used for the diagnosis or treatment of medical conditions. EMIS has used all reasonable care in compiling the information but make no warranty as to its accuracy. Consult a doctor or other health care professional for diagnosis and treatment of medical conditions. For details see our conditions.
Ask your doctor about Patient Access

- Book appointments
- Order repeat prescriptions
- View your medical record
- Create a personal health record (iOS only)

Simple, quick and convenient.
Visit patient.info/patient-access or search 'Patient Access'

© EMIS Group plc - all rights reserved.