

What is Peyronie's Disease?

Peyronie's Disease (PD) is the development of scar tissue, or plaque, on the penis. The penile plaque can go unrecognizable. Most men will seek medical attention due to a curvature of the penis. The plaque can restrict lengthening or and cause "hourglass" or "bottleneck" appearance of the penis. This can occur in 2 phases:

- Active disease: Plaque is remodeling possibly causing inflammation, pain, and deformity. May or may not have palpable plaque. This phase can last up to a year.
- Chronic or Stable disease: After the acute phase, the plaque calcifies and remodeling is complete. The pain usually subsides and the deformity stabilizes. Plaque is more likely to be palpable. Changes in sexual function may occur during this phase.

Causes

Although exact cause is unknown, it has been theorized that there is a genetic component and having Dupuytren's disease may be a risk factor. More commonly, it is believed that PD can be caused by a history of penile trauma (bleeding can cause scar tissue).

Symptoms

Not all men will have the same symptoms. The most common symptom that causes men to seek medical attention is curvature or deformity of the penis. Other symptoms include pain with erection, lump in the penis, and erectile dysfunction. The penile deformity may prevent or make intercourse difficult.

Diagnosis

There are no specific lab tests that will test for PD. A complete history and a physical examination of genitalia will be necessary. This will involve measuring the penis while erect and assessing for any plaque- this may involve an intracorporal injection to produce an erection in office. Also, ultrasound can be used to visualize the plaque.

Treatment options

Patients should have an open discussion with their provider about how this affects their quality of life. Not all PD needs to have treatment. Often, reassurance and emotional support is all that is needed. Some may have spontaneous resolution.

During the acute phase, the aim of treatment is relieving pain and preventing further progression. Pain can be relieved by NSAIDS. Once in the stable phase, treatment is based on if it interferes with sexual function.

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- Medical therapy:
 - Oral therapies: Least invasive option. They aim to improve scarring and reduce plaque.
 - Intralesional Therapy: Drugs are injected directly into the plaque to decrease plaque volume and correct deformity. Interferon a-2b and Verapamil have been used in the past with some success. The first FDA approved injectable medicine for PD, Xiaflex, is also an option if there is curvature of least 30 degrees and palpable plaque. This medicine works in combination with penile modeling.
 - Penile Traction: Device delivers steady traction to stretch the tissues, which can reduce the curvature of the penis.

- Surgical options

Men with stable PD who have been unsuccessful with medical treatment and have a curvature that interferes with sexual intercourse, may be a candidate for surgery. These are the most invasive options:

- Tunical Plication: Tissue on the opposite side of the plaque is sutured, shortening the long side of the penis. This will straighten out the penis. If adequate erectile function, this surgery may be an option.
- Plaque incision and grafting: Plaque is removed or cut. A graft is used to cover. If adequate erectile function, this surgery may be an option.
- Penile Prosthesis: A penile implant can be implanted for severe erectile dysfunction, if all other options fail.

References:

AUA algorithm for treatment: [http://www.auanet.org/guidelines/peyronies-disease-\(2015\)](http://www.auanet.org/guidelines/peyronies-disease-(2015))

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