

# Embolization Treatment of Varicoceles

## What is a Varicocele?

A Varicocele is an abnormally dilated cluster of veins in the scrotum.

## Why do Varicoceles occur?

Leaking valves in the testicular veins causes them to become dilated & enlarged. Because of slight differences in vein anatomy, Varicoceles are much more common on the left.

## Who gets Varicoceles?

Varicoceles occur in approximately 10% of men. They are more common in men with infertility.

## What symptoms can Varicoceles cause?

One out of four people with Varicoceles will have a low sperm count and one out of two will have poor sperm movement. However, one who has varicoceles can still be fertile. Varicoceles may also cause scrotal pain, swelling and heaviness. The dilated veins can be felt as a lump or like a "bag of worms." Symptoms may worsen by standing or sitting.

## How is the diagnosis made?

Physical examination by your fertility specialist or urologist is the important first step. The diagnosis can be confirmed by scrotal ultrasound, a painless test which uses sound waves without radiation. Semen analysis performed on men with fertility problems and Varicoceles often shows low sperm counts, impaired movement, and abnormal morphology (appearance).

## When should a Varicocele be treated?

Varicoceles should be treated when they are symptomatic, cause infertility or when they occur in children or teenagers.

## How is a Varicocele treated?

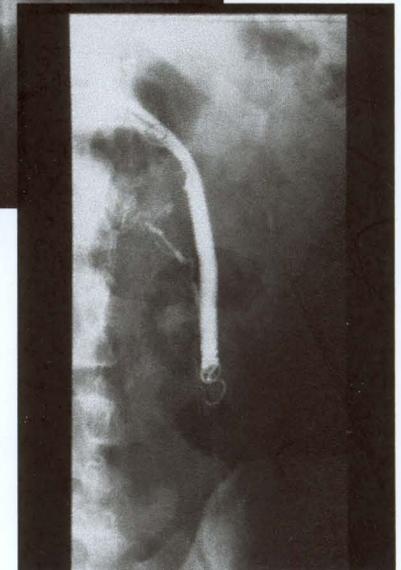
Treatment can include surgery to tie off the leaking veins or can be performed by sealing the veins using minimally-invasive interventional radiology techniques called **embolization**.

## How is embolization performed?

Embolization is performed in the radiology special procedures department. It is an outpatient procedure requiring only a few hours of hospital stay. A very thin catheter (tube) is placed into a vein in the right groin and fed into the dilated vein that supplies the testes. Once an angiogram is performed that confirms leaking valves, platinum metal coils are placed along the length of the vein to seal it. The pressure in the scrotal veins then normalizes and the Varicocele shrinks immediately. Any blood that would be traveling backwards in the abnormal vein is diverted to the other healthy veins where it can flow normally, so testicular function is not impaired. The procedure takes 1-2 hours depending on whether both sides need to be treated. It is performed with mild sedation and a local anesthetic to numb the vein access site.



VARICOCELE FILLED ▲  
w/CONTRAST



VARICOCELE NO LONGER FILLS FOLLOWING  
SUCCESSFUL EMBOLIZATION

## How effective is embolization?

- ▶ 96% technical success rate
- ▶ 72% disappearance of Varicocele on physical examination
- ▶ 40 - 60% pregnancy rate (significantly higher than the observed spontaneous pregnancy rate)
- ▶ 8% recurrence rate

Surgical outcomes are similar, but embolization has the advantage of being minimally-invasive.

*If you have any questions regarding this or any other service at Radiology Regional Center, please contact your referral relations representative or call 931-6399.*