



# Varicocele?

Embolization for the treatment  
of testicular varicoceles



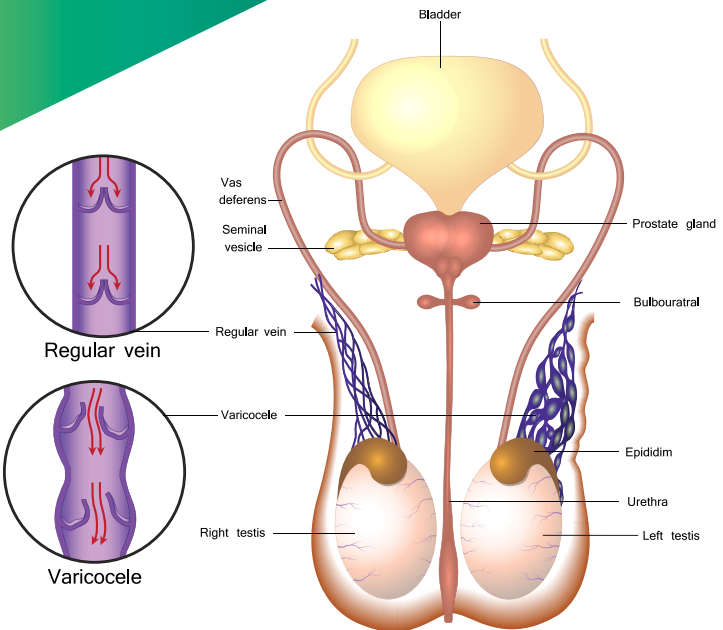
**NORTH STAR**  
VASCULAR & INTERVENTIONAL

# What is a varicocele?

A varicocele is caused by one or more faulty valves within the veins in the scrotum. This causes blood to flow in reverse and “pool” within the veins. The veins become enlarged, forming a bulge, or varicocele.

Most men with a varicocele do not experience any symptoms. However, as many as 40% of men with decreased fertility have a varicocele. It is thought that the additional blood raises the temperature in the testicle, which negatively affects sperm quality and count.

Varicoceles are most common within the left testicle. The veins can feel like a “bag of worms” and will usually be found by a doctor during a routine physical. Once a varicocele is formed, it will not go away on its own.





## **How do I know if varicocele embolization is right for me?**

This procedure is recommended for patients who have an enlarged varicocele, and one or more of the following:

- Are experiencing a dull ache or pain, especially while standing
- Do not want to experience infertility issues
- Have shrinking of one or both testicles
- Do not wish to have surgery to treat a varicocele

## Treatment options

Men without symptoms do not need to treat this condition. However, those experiencing pain, infertility or testicular shrinkage may benefit from treatment. In addition, it is recommended that adolescents treat a varicocele to avoid future infertility.

Varicocele embolization is a minimally invasive outpatient procedure to treat varicoceles. It is highly effective, requires no hospital stay and the patient can return to normal activities in 2-3 days. It is an excellent alternative to open surgery. As varicoceles may return over time, it is safe to repeat this procedure, and it is appropriate to have it even if the patient has had surgery in the past.

## The embolization procedure

Varicocele embolization is performed by an interventional radiologist who inserts a tiny catheter into a vein in the groin or neck, using x-ray imaging to guide it through the body's blood vessels to the veins within the testicle. Tiny coils or other embolic materials are then inserted into the vein to block the flow of blood, causing the vein to shrink and eventually disappear. The body reroutes blood through other healthy veins in the testicle.

The procedure has a high success rate, comparable to open surgery, with a 90% effectiveness. Patients can typically resume sexual activity the day after embolization, but it may take 3-6 months for sperm count to improve.

## Potential side effects

Varicocele embolization should only be performed by a trained and experienced interventional radiologist. Complications with this procedure are rare, and can include infection at the catheter insertion site, and transient testicular pain.

## Talk to your doctor

Varicocele embolization is an effective and less invasive option to treat varicoceles, performed by the experienced doctors at North Star Vascular & Interventional. If you have been diagnosed with a varicocele, call us to make an appointment or share this brochure with your doctor. We are happy to help provide the information you need to make an informed decision.



## North Star Vascular & Interventional

The doctors at NSVI are pioneers in interventional radiology. Hailing from some of the region's most prestigious healthcare and academic institutions, they were among the first to perform certain imaging-guided procedures in the United States. In fact, NSVI doctors play a leading national role in training other doctors to perform minimally invasive procedures like varicocele embolization.

NSVI offers the full range of minimally invasive vascular and interventional radiology services, including thyroid treatment, at their state-of-the-art Minneapolis-based outpatient center. Cancer, spine fractures, uterine fibroids, knee osteoarthritis, plantar fasciitis and vascular disease can be treated faster, less expensively and with greater precision and safety than ever before.

To learn more, visit [NorthStarIR.com](http://NorthStarIR.com).



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