Varicoceles

Varicoceles are a common, treatable medical problem that affects millions of men in the United States.

What Is a Varicocele?
A varicocele is an enlargement of veins (a type of blood vessel) above the testicles. Varicoceles are present in 20% of men, often develop during puberty, and can grow larger with age.

Varicoceles are classified into 3 sizes, known as grades. Grade 1 and 2 varicoceles are small and hard to detect without involving a health care professional. Grade 3 varicoceles can be felt easily and often seen. They can feel like a bag of worms next to the testicles when standing up or can make one testicle appear larger than the other. It may feel as if they disappear when lying down. Larger varicoceles can cause a dull pain in the testicles and scrotum. Diagnosis is by physical examination; an ultrasound is generally not needed.

Causes of Varicoceles
A varicocele develops from veins that carry blood away from the testicles and toward the heart. Normally, valves in these veins help blood move in the right direction. If there is a problem with these valves, a backup of blood can occur. This causes the veins near the testicle to dilate (widen) and swell, resulting in a varicocele.

A person’s genes affect how likely they are to develop a varicocele. Men are more likely to have a varicocele if their father or brother has had one. Varicoceles are more commonly found on the left side of the testicles.

Significance of Varicoceles
Varicoceles are the most common cause of male infertility. A major function of the veins surrounding the testicles is to draw heat away from the testicles. A varicocele can cause the testicles to overheat, which negatively affects sperm production. This can result in decreased sperm quantity and quality, as well as lower testosterone levels.

Treatment for Varicoceles
If a person does not have discomfort and fertility is not affected, treatment is usually unnecessary. For individuals with pain, sometimes an ultrasound is done and shows a varicocele, but it is important to rule out other sources of pain such as infection and trauma before addressing the varicocele. For individuals with decreased fertility and/or pain due to a varicocele, multiple treatment options are available and should be discussed with a male infertility specialist and/or urologist. Treatment options include open surgery (varicocelectomy), laparoscopic surgery (with use of cameras placed in the abdomen), embolization (blocking the veins with coils), or a type of surgery called microsurgical subinguinal varicocele repair, which uses a surgical microscope. The goal of all treatments is to tie off or block the veins involved in a varicocele and return testicle function to normal.

For men with pain, varicocelectomy is effective 80% to 90% of the time. For men concerned about fertility, 70% of those who have their varicoceles treated have improvement in sperm production in as little as 3 to 6 months. In addition, success with assisted reproduction such as intrauterine insemination and in vitro fertilization may be improved after repair.

FOR MORE INFORMATION
Mayo Clinic
www.mayoclinic.org/diseases-conditions/varicocele/symptoms-causes/syc-20378771