



FERTILITY FACT SHEET

San Ramon / Orinda / San Jose

VARICOCELE AND INFERTILITY

A varicocele is a collection of enlarged veins inside the scrotum. Approximately 15% of the normal male population have a varicocele and up to 40% of men with infertility are found to have the condition. Varicoceles have been found to have an adverse effect on sperm production.

Doctors who discover varicoceles often describe them as feeling like a “bag of worms.” Only large varicoceles have been clearly associated with infertility.

It is controversial whether or not varicoceles need to be treated once they are identified. The American Society for Reproductive Medicine issued a Practice Committee Joint Report in 2008 on this topic. A summary of this report is outlined below.

Treatment of the varicocele should be considered when all of the following conditions are met:

- 1) the varicocele is palpable on physical examination of the scrotum
- 2) the couple has known infertility
- 3) the female partner has normal fertility or a potentially treatable cause of infertility
- 4) the male partner has abnormal semen parameters or abnormal results from sperm function tests

Varicocele treatment for infertility is not indicated in patients with either normal semen quality or a subclinical varicocele.

Couples with male factor infertility associated with a varicocele can opt for varicocele repair or with fertility treatments such as intrauterine insemination (IUI) and in vitro fertilization (IVF). Varicocele repair has the potential advantage of permanently curing the varicocele and related sperm abnormalities. If, however, IVF is recommended for other concomitant infertility factors such as female age or tubal infertility, varicocele repair may not be indicated.

Repair of a varicocele can be accomplished through a surgical approach or through percutaneous embolization. Both methods have been shown to be equivalent in improving fertility. Please discuss with your urologist the varying techniques for varicocele repair and the advantages and disadvantages of each approach.

Most studies report that semen quality improves in a majority of patients following varicocele repair. However, most of these studies lack adequate numbers of patients, randomization, and/or controls. Therefore, it is not possible to draw a clear conclusion regarding the impact of varicocele repair on fertility.

The Practice Committee Joint Report states that “despite the absence of definitive studies on the impact of varicocele repair on fertility, varicocele treatment should be considered as a choice for appropriately selected infertile couples because: 1) varicocele repair has been proven to improve semen parameters in most men; 2) varicocele treatment may improve fertility; and 3) the risks of varicocele treatment are small.”

SOURCE: The Practice Committee of the American Society for Reproductive Medicine, Fertil Steril 2008;90:S247-9