# ECE: Gene variants linked to reduced male fertility

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Particular gene variants of follicle stimulating hormone and its receptor are associated with significantly reduced fertility in men, according to a study presented at the annual European Congress of Endocrinology, held from April 27 to May 1 in Copenhagen.

(HealthDay)—Particular gene variants of follicle stimulating hormone (FSH) and its receptor are associated with significantly reduced fertility in men, according to a study presented at the annual European Congress of Endocrinology, held from April 27 to May 1 in Copenhagen.

Joerg Gromoll, Ph.D., from the Centre of Reproductive Medicine in Muenster, Germany, and colleagues genotyped 1,213 male partners in infertile couples and 365 women with normal reproductive function for a single nucleotide polymorphism (SNP) in the promoter of the FSH subunit B (−211G>T) and a SNP in the FSH receptor (2039A>G). Both SNPs had been associated with FSH levels.

The researchers found that men with the FSH subunit B variant had lower levels of serum FSH, reduced bi-testicular volume, and higher levels of luteinizing hormone (LH). The effect on serum FSH and testicular volume was even more pronounced in men who also had the FSH receptor variant and was associated with a 34 percent drop in sperm count. Women with the FSH subunit B variant had higher levels of serum FSH and LH but reduced progesterone. The FSH receptor variant was also associated with higher serum FSH in women.

"The SNPs in the FSH subunit B and FSH receptor genes have significant impact on reproductive parameters in both sexes and the combinatory effects of variants in hormone and receptor are an unparalleled example in endocrinology," Gromoll and colleagues conclude.

**More information:** Abstract
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