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Male Reproductive Problems May Add to Falling Fertility Rates

Reduced male fertility, may be making it even harder for couples to conceive and be contributing to low birth rates in many countries, reveals a new European Science Foundation (ESF) report launching at the IPSEN meeting in Paris.

More than 10% of couples worldwide are infertile, contributing to the growing demand for assisted reproduction techniques such as in vitro fertilization (IVF) for which Robert G. Edwards won the Nobel Prize in Medicine last month.

Sperm counts have dropped significantly in the last 50 years in developed countries. Today, at least one in five 18-25 year old men in Europe has semen quality in the subfertile range. Testosteronelevels are also declining. This is mirrored by increasing testicular cancer in most industrialized countries and more developmental abnormalities, such as, undescended testes. All of these factors are linked to reduced fertility and may have common origins during foetal development.

"The important impact of men's reproductive health on a couple's fertility is often overlooked," said Professor Niels Skakkebæk from the University of Copenhagen, who coauthored the report. "Women postponing motherhood have reduced fertility, and now we see that poor sperm may be making it even harder to conceive. While poor sperm may be part of the reason more couples are using IVF. it may also be making those therapies less successful."

Skakkebæk continues: "We need a common strategy in Europe to target research so we can address the poor state of men's reproductive health. That this decrease in male reproductive health has occurred in just a few decades suggests it's caused by environmental and lifestyle factors rather than genetics. So it is preventable if we correctly identify the causes."

In men, some lifestyle factors, such as obesity and smoking can affect sperm counts, but the effects are small. In contrast, if women smoke heavily in pregnancy, a much larger fall in sperm count is likely in their sons when they grow up. Testosterone levels naturally drop as men age, which may predispose men to cardiovascular and metabolic health problems that pose large financial and healthcare issues for national governments. Low sperm counts and low testosterone levels are both associated with increased risk of early death for men.

The Science Policy Briefing 'Male Reproductive Health' is a comprehensive insight into male reproductive health with detailed research policy recommendations. It is available online at: http://www.esf.org/publications

Editor's Note: This article is not intended to provide medical advice, diagnosis or treatment.