## Sperm Related Fertility

Sperm related infertility is caused by several factors, some of which (for example smoking, frequent hot baths) may be corrected by simple measures. The information in this flyer is based on sound scientific evidence. The flyer is designed to provide some simple, useful advice on how to improve fertility. However, the information in this flyer should be used as a guide only. Treatment advice specific to your situation should be sought from your doctor.

## A HEALTHY LIFESTYLE

The initial evaluation of infertility includes a complete history (medical & surgical), a physical examination and at least two complete semen analyses. The evaluation is designed to uncover the possible etiology or cause of the infertility. Regardless of the cause, adopting a healthy life-style can help optimize testicular function and sperm related fertility potential. Regular exercise, a well-balanced diet and adequate sleep are important to maintain overall health and testicular function. Avoiding exposure to gonadotoxins (substances or drugs that are harmful to the testis) or other harmful conditions will help maximize sperm quality. The following measures may help maintain and possibly improve sperm quality:

- Avoid potentially harmful social habits (e.g. cigarette smoking, excessive alcohol consumption, recreational drugs)
- Avoid activities that elevate testicular temperature Zini et al, J Assist Reprod Genetics, 2009. (e.g. saunas, whirlpools, hot baths, prolonged sitting)
- 3. Avoid potentially harmful medications or supplements. (Review your medications or supplements carefully with your doctor)

## A Guide for patients

## ANTIOXIDANT VITAMINS AND MINERALS

Anumber of studies have demonstrated a beneficial effect of several key antioxidants (vitamins and minerals) in the treatment of sperm related infertility. Several controlled studies have shown that oral antioxidants can improve sperm count and quality, and, increase chances of conception. Recently, studies have also shown that combination antioxidants may improve the quality of the sperm DNA, an aspect of sperm function that has importance innatural and assisted reproduction (insemination and in vitro fertilization).

We recommend that patients take daily antioxidant vitamins for at least 3 to 6 months based on the observation that these agents can in some cases improve fertility potential and that the adverse or side effects of such vitamins are minimal. The following oral antioxidants (alone and in combination) have shown positive effects on sperm count and quality: vitamin C, vitamin E, folic acid, zinc and selenium.

Selected References:
Dawson et al, Fertil Steril, 1992.
Ebisch et al, Int J Androl, 2006.
Fraga CG et al, Proc Natl Acad Sci, USA, 1991.
Geva E, et al, Fertil Steril, 1996.
Greco et al, Hum Reprod, 2005.
Keskes-Ammar L et al, Arch Androl, 2003.
Kessopoulou E et al, Fertil Steril, 1995.
Suleiman et al, J Androl, 1996.
Wong et al, Fertil Steril, 2002.
Zini et al, Urology, 2004.
Zini et al, J Assist Reprod Genetics, 2009.



Fertil-Prois a vitamin and mineral supplement approved by Health Canada and designed to enhance sperm related fertility potential.

