

## Keep your sperm healthy

Male infertility is increasing and a major contributing factor is the poor quality of a man's seminal fluid or semen.

Special cells in the semen called spermatozoa (sperm for short) enable pregnancy by penetrating and fertilising the woman's egg. If there is a concern about a man's fertility, a special test called a semen analysis (often called a sperm count) is usually ordered by his doctor. The man masturbates and collects the ejaculate into a cup. The semen should then be examined within a few hours to get the most accurate results. Sperm health is determined by several factors, including the quantity, the movement and the structure of the sperm.

- **Quantity or sperm count.** Forty million to 300 million is the normal range for the number of sperm per millilitre of semen. Counts below 15 million are considered low while counts of 20 million or more may be satisfactory if other factors are normal. Too little sperm in an ejaculate might make it more difficult to impregnate the egg. According to researchers at the British Medical Research Council, sperm count of men all around the world have decreased by 50 per cent in the last 50 years.
- **Movement or motility.** To reach to and fertilise an egg, sperm must move, wriggle and swim through a woman's vagina, womb and tubes. This is called motility. You are more fertile when at least 40 per cent of your sperm are moving.
- **Structure or shape.** Normal sperm have oval heads and long tails, which work together to move them ahead. Though less important, the more normally shaped sperm you produce, the more likely you are to be fertile.

**Hormonal disturbance** The balance between the levels of male (testosterone) and female (oestrogen) hormones is a critical factor in male infertility. Sadly, we now live in an environment polluted with unhealthy chemicals, particularly substances that behave like the female hormone oestrogen. Researchers believe that many fertility disorders are caused by exposure of men to oestrogenic chemicals. Other studies done on pregnant women who took oestrogen drugs revealed a low sperm count in their male offsprings. These chemicals may even contribute to the increasing levels of homosexuality in young men as well as early sexual development and teenage pregnancy in our girls. Women are now exposed to these external oestrogen from a wide array of sources: drugs, food, water, air, even some skin-and hair-care products. They unwittingly pass them on to their developing sons and daughters. Many other chemicals also contribute to the problem, including some pesticides, plasticisers, food colourings, solvents, metals, dioxins, and alcohol. Some environmental toxins such as PCBs and DDT persist and accumulate in human and animal tissues for a very long time.

**Obesity** Increases in body fat are known to elevate oestrogen production in both men and women. Additionally, as men age their fat cells manufacture more and more female hormones by converting their testosterone into the female hormone, oestrogen. The fatter the man, the greater this hormonal reversal. These hormonal shifts carry far-reaching physical, psychological and social consequences.

**Radiation and heat** Men get uncomfortable without their laptops or smartphones. This may create an infertility problem. Researchers from Argentina examined sperm from healthy men who sat with their laptops on their laps for hours. They found that radiation given off by the Wi-Fi connection resulted in low sperm motility. The constant wearing of tight-fitting or hot underwear may also reduce sperm count.

**GOOD NUTRITION** The popular adage 'you are what you eat' might even apply to the strength and quantity of your sperm. Studies presented to the American Society for Reproductive Medicine highlight the connection between nutrition and semen quality. The findings are that a healthy diet is beneficial for semen quality. Diets rich in red meat and processed carbohydrates impair the motility of sperm, while diets high in trans-fats lower the sperm count. The 'healthy sperm' diet puts a heavy emphasis on fresh fruit and vegetables with a low consumption of processed, chemical-laced foods. Eat foods that provide optimal levels of healthy protein and try to 'eat organic' as much as possible and. Specific foods that assist in hormonal regulation include soy, green tea, seafoods and the crustiferous vegetables. I employ a very effective supplement program called Cellular Nutrition. Supplements like ginseng, omega-3 fatty acids, medicinal mushrooms, tang kuei, zinc and evening primrose oil also help to naturally optimise fertility. Daily exercise, adequate sleep, stress management and regular sun exposure also assist.

**DETOXIFY** It's important to prevent toxic chemicals from accumulating in the body. A high fibre and high water-consumption diet will help. Colon cleansing, sauna baths, sweating and other detox techniques done regularly is also very useful. Specific vitamins and herbs like the antioxidants, aloe vera, milk thistle and probiotics can be applied. More aggressive detox strategies, including intravenous chelation therapy, may also be employed.

**CORRECTING HORMONE IMBALANCE** Ask your doctor to do your hormone profile which will show your various hormone levels. Unfortunately, it does not reveal other synthetic chemicals in your body. After testing your hormone status, the needed hormones can be replaced using bio-identical hormones - the exact substance that the body makes, not an unnatural chemical. Testosterone, oestrogen, progesterone, thyroid hormone, DHEA and cortisol are all available in bio-identical forms. Your doctor would decide on the appropriate dosage and method of administration. Your hormone levels and sperm count must be monitored to achieve optimal results.