At Wellness Within we address male infertility with both traditional and conventional approaches, using acupuncture, herbal and whole food nutritional formulas, diet, sleep, stress reduction and exercise education. We also use hair and saliva lab tests to see exactly where the hormonal issues lie with each patient. What follows is a very interesting article that addresses what seems to be an increasing international issue on declining sperm health.

Factors for Male Infertility

· Recent evaluation of infertile couples revealed that male infertility is responsible in 50 per cent of the cases.

· ***Chlamydia trachomatis (sexually transmitted)*** **is one of the most prodigious pathological organisms causing this alarming incidence of tubal infertility**.

· The worsening effects of the environment are significantly reducing our fertility status and **natural medicine is proving to be a viable alternative to invasive and expensive assisted reproductive technology.**

In February 2000, Sinclair wrote:

"Studies confirm that male sperm counts are declining, and environmental factors, such as pesticides, exogenous estrogens, and heavy metals may negatively impact spermatogenesis."

"A number of nutritional therapies have been shown to improve sperm counts and sperm mobility. They include amino acids, vitamins and minerals best supplied in organic whole foods. Acupuncture and Chinese herbal formulas used in clinical settings throughout the world are shown to have a positive effect on sperm parameters."

"A multi-faceted therapeutic approach to improving male fertility involves identifying harmful environmental and occupational risk factors, while correcting underlying, nutritional imbalances to encourage optimal sperm production and function."

Factors associated with infertility include:

- Stress
- Nutritional deficiency
- Sexually transmitted diseases and Genitourinary tract infections
- Pollution
- Drugs
- Radiation
- Heavy Metal toxicity
- Immune system weakness
- Environmental and lifestyle

Exposure and subsequent toxicity from heavy metals can come from a number of sources including: the family home, workplace, environmental pollutants,

food and drinking water. The data on the adverse effects of heavy metals on fertility is accumulating at a rapid rate.

Identified toxins include: lead, cadmium, iron, copper, aluminium, mercury and nickel. However, the heavy metals that bear particular significance for infertility are lead, mercury and cadmium. They exhibit adverse effects in small concentrations and displace essential minerals such as zinc. The symptoms of heavy metal toxicity are vast, but common symptoms include: suppression of the immune system, fatigue, infertility, sub-fertility and depression.

There have been several reports indicating the quality and quantity of human spermatozoa to be facing a serious decline. This leads some scientists and environmentalists to believe that the human species is approaching a fertility crisis. Several factors have been claimed to be the attributable causes of the decline in male fertility potentials. These include heavy metals and various chemical agents widely used in agriculture and industry.

Moreover, other physical factors such as the increased global temperature and radiation exposure, as well as the biologic factors such as the contamination of phyto- and xeno-estrogen in the environment, could be detrimentally affecting the male reproductive function.

These effects can result in, not only a reduction in sperm concentration, but also alterations in sexual behavior, mood disorders and the presence of genital cancers. The knowledge in male gonadal toxicity, therefore, is very useful in understanding the impact of environment to the male reproductive system. This will lead us to protective strategies to avoid the adverse effects of environmental factors on the male fertility.

The Department of Gynaecological Endocrinology and Reproduction, belonging to the University Hospital of Obstetrics and Gynaecology in Heidelberg, Germany, conducted a study to investigate the effects of heavy metals on human fertility. It was clearly found that heavy metals have been identified as factors affecting human fertility. The study was designed to investigate whether the urinary heavy metal excretion is associated with different factors of infertility. The urinary heavy metal excretion was determined in 501 infertile women after oral administration of the chelating agent 2,3- dimercaptopropane-1-sulfonic acid (DMPS).

Furthermore, the influence of trace element and vitamin administration on metal excretion was investigated. Diagnosis and reduction of an increased heavy metal body load improved the spontaneous conception chances of infertile women.

The DMPS test was a useful and complementary diagnostic method. Adequate treatment using natural nutrients to drain the heavy metals from the bowel (NOT from the Kidneys) provides successful alternatives to conventional hormonal therapy.

Hair Analysis

Hair analysis is a non-invasive diagnostic technique available to ascertain the degree of heavy metal burden. Hair trace mineral analysis data provides indications of mineral imbalances, deficiencies and excesses of essential and toxic elements and the minerals control hormones.

Hair is the second most metabolically active tissue and provides a record of the metabolic activity during its growth period. The first 4 cm of hair closest to the scalp from the occipital region can provide an indication of nutrient and toxic metal exposure over previous eight to twelve weeks.

Lead

Lead toxicity has been associated with sterility, miscarriage, stillbirth, menstrual disturbance, impotence and damage to sperm.

Sources of lead include exposure to drinking water; lead-based paint (which people may be exposed to if undergoing home renovations, especially if the house was built prior to 1960). Petrol fumes, lead-soldered piping, cosmetics and hair dyes for darkening purpose (such as mascara) super phosphate fertilizers, batteries, metal polishes, tobacco and cigarette smoke.

A study was conducted to investigate the effects of automotive exhaust containing lead on the general growth and sexual activity of the rat. **In the group of rats exposed to automotive exhaust containing lead, deposits found in the lungs were found to cause atrophy of the testicles, seminal vesicles and epididym. Certain pathological changes in spermatogenesis were noted, as was a decrease in the serum testosterone level of male rats.**

Of particular concern, is the fact that lead enters our water supply from rainwater (via car exhaust), lead- soldered piping, brass taps, PVC piping. **Lead** causes sterility in men and accelerated bone loss in post menopausal women.'

Cadmium

Cadmium exposure is predominantly attributed to active and passive cigarette smoking, processed foods including evaporated milk, plumbing alloy, fungicides, pesticides, the smoke of burning plastics, photography materials and electronic equipment. Recent studies confirm that cadmium toxicity causes reduction of male sperm quality and subsequent infertility.

Mercury

Mercury is found in dental amalgams, contaminated deep-water fish (including shark, tuna, swordfish and crustaceans) fluorescent lights, batteries, pesticides, fungicides, insecticides, photographic materials, thermometers and pharmaceutical medications such as soft contact lens solution, vaccinations and nasal sprays.

Dental amalgams are responsible for a majority of the ingestion of mercury. For those who have amalgam fillings in their teeth and are experiencing fertility problems associated with mercury toxicity, it is essential to seek a dental practitioner who is experienced with the safety precautions and protocols for removing mercury containing amalgam fillings. Some of the most important safeguards are

nutritional and /or herbal supplementation for at least two weeks before and after the removal, and the use of a rubber dam in the mouth during the procedure to prevent partials of amalgam being swallowed or inhaled.

The Epidemiology Branch of the National Institute of Environmental Health Sciences **conducted research into the effects of mercury exposure on female fertility. It was established that exposure to mercury vapour or inorganic mercury compounds can impair fertility in laboratory animals**. They studied the effects of mercury vapour on fertility in women, using eligibility questionnaires where 7000 registered dental assistants in California were contacted. The final eligible sample of 418 women, who had become pregnant in the previous four years, was interviewed by telephone. Detailed information was collected on mercury-handling practices and the number of menstrual cycles it took before they fell pregnant. Dental assistants not working with amalgam served as unexposed controls. Women with high occupational exposure to mercury were less fertile than unexposed controls. The fecundability (probability of conception each menstrual cycle) of women who prepared 30 or more amalgams per week, and who had five or more poor mercury hygiene, was only 63 per cent of that for unexposed women (95% CI 42%-96%) after controlling for covariates. Women with low exposure were more fertile, however, than unexposed controls.

Mercury toxicity has also been associated with chronic fatigue syndrome, behavioral and psychological changes including memory loss and depression.

Treatment of heavy metal toxicity

There are various natural treatment protocols for eliminating heavy metals from the body and this should be done very carefully by a health care practitioner who has experience doing this. Therapies include chelation, herbal, nutritional drainage protocols and acupuncture as an adjunct for support.