

In this article, I would like to address an increasing health concern in today's modern world, infertility. Although quite complex, I do think that as trusted health professionals, we need to have some knowledge on the condition and how we can help couples conceive. There are limitations to conventional care and you may have noticed more patients coming into your office requesting your help in this area. I hope to answer some common questions regarding infertility and highlight two tests, the hair mineral and heavy metal analysis and hair cortisol test as options for patient care.

What is infertility?

According to the World Health Organization, infertility is a disease of the reproductive system defined by a failure to achieve a clinical pregnancy after 12 months or more of regular unprotected sexual intercourse (Zegers-Hochschild et al., 2009).

Is infertility a common problem?

Infertility is a major problem in modern society and recurs in as much as 20–30% of the fertile female population. The World Health Organization (WHO) reports up to 80 million women world-wide having been affected by this disease to date, with a prevalence of

~50% of all women in developing countries. (Sylvestris et. Al, 2019)

Is infertility just a woman's problem?

Infertility is not just a woman's problem, although most women are the one's seeking medical care initially. Male infertility accounts for about 40 – 50% of infertility in a couple. Male infertility is a situation where a man is unable to get a fertile woman pregnant after at least one year of consistent unprotected sex. (Onwuli et al, 2014)

What causes infertility in men?

Male infertility is commonly marked as deficiencies in the semen and semen quality. In most fertility tests, the volume, total sperm count and sperm motility are often measured. Infertility affects about 8-12% of the world's population, and in half of the cases, men are either the single cause or contribute to the couples infertility. (Onwuli et al. 2014)

What increases a man's risk of infertility?

Some factors that may reduce the quality of sperm cells include the consumption of heavy alcohol, use of certain drugs, cigarette smoking, hormonal imbalance, treatment with certain chemotherapy for cancer, advanced age and environmental toxicants, such as pesticides and heavy metals, which may act as endocrine disruptors. (Onwuli et al. 2014)

What causes infertility in women?

The most common causes for female infertility are smoking, alcohol, irregular ovulation, PCOS, following a high glycemic diet with low nutrients, excessive caffeine, endometriosis, a history of pelvic infection, advanced maternal age, stress and toxicity.

I would say that unabated stress results in high adrenaline and cortisol levels. This leads to other imbalances in the body- hormones and nutrients alike.

Drugs such as marijuana and cocaine, smoking tobacco and alcohol intake have been shown to have adverse effects on all aspects of reproduction, from conception to labour to delivery. Smoking causes significant increases in miscarriage and prematurity. Women who are smokers are less successful with fertility treatments of all kinds than are non-smokers. (Silvestris et al, 2019)

Exposure to environmental pollutants is another large risk factor. The Occupational Safety and Health Administration (OSHA) postulated that long-lasting exposure to chemical agents as organic solvents, heavy metals, aromatic amines, pesticides and vegetal toxins is related to reduced fertility and recurrent miscarriages. (Silvestris et al, 2019)

How will naturopathic doctors/health practitioners find out if a woman and her partner have fertility problems?

Most people who I see and treat have already been given a diagnosis of infertility and usually come in with a battery of lab tests run through their fertility doctors. Nevertheless, it is important that a thorough medical history be attained for both male and female patients. Questions pertaining to current lifestyle attitudes including sleep, diet, stress, sexual history, menstrual history etc. needs to be understood. Additional ways to assess their health may be through testing of hormone levels through blood or saliva, including estrogen, progesterone, LH, FSH and thyroid hormones.

Commonly, I see many patients who are unsure of the reason they cannot conceive as everything seems to check out fine with medical doctors and so are given a diagnosis of "infertility of unknown cause". This provides alternative practitioners a great opportunity to address other areas of one's health that may have been missed or dismissed all together as a barrier to fertility. Canalt labs offers two tests that I include in any workup for infertile patients.

Hair Mineral and Heavy Metal testing is a valuable test that can help you clue into nutritional deficiencies and heavy metal toxicities that have been studied as a potential cause for infertility in both the male and female patient.

Hair Cortisol would be another test to address high stress levels in the patient as this is another possible reason for infertility, especially "unexplained" infertility. Many people are unaware of the long term effects of stress on their bodies. Some people are quick to dismiss the fact that they are stressed. Testing as such provides them with the connection to see the physiological effects of their lifestyle and stresses on their body and of course, the initiation to do something about it.

How do Naturopathic doctors and alternative practitioners treat infertility?

The “conventional” management of infertility generally focuses on the body as a hormonal machine and in large part ignores the psychological, emotional and nutritional aspects of one’s health. Here is where alternative therapies are finding their place and for good reason. When the focus is primarily on the pharmacological treatments and technologies currently available for fertility without much concern for the hearts and spirits of those patients, the results can leave a lot of people feeling devastated. It is important to treat the “whole person” and listed below are some ways to do that.

Counseling: I can’t emphasize enough the importance of listening to and providing understanding to your patients. This can be a very difficult and stressful time in their lives. Providing emotional support and a place where they can express their fears, hopes and dreams is important when you have patients struggling with infertility. Several studies show that when emotional stress is resolved, pregnancy rates go up.

Hormonal Balance: When assessing for hormonal balance there are many ways to do so either through urine, saliva or blood. If you don’t have access to ordering these tests, sometimes a thorough questionnaire will suffice. In all my years of clinical practice, I have come to trust that when you combine the healthy merits of a balanced diet, stress management and moderate exercise, the body begins to restore hormonal balance.

Nutritional Support: Upon completing a hair mineral analysis this will give you a clear picture of mineral deficiencies. Most infertile patients that I have helped were very minerally depleted and so beginning a prenatal for women with adequate folic acid is important. For men, a multivitamin in addition to vitamin C (500-1g/day), vitamin E (400iu/day), selenium (200 mcg/day) and zinc (20mg) may help in sperm production.

Omega 3 Fatty Acids: More research is shedding light on the positive effects of omega 3 fatty acids in both female and male infertility. The effects of DHA and EPA on sperm parameters including total sperm concentration, sperm motility, seminal plasma DHA and sperm DHA have been evaluated in infertile men. Results of the meta-analysis showed that supplementing infertile men with omega 3 fatty acids improved sperm motility and DHA in seminal plasma. (Hosseini et.al, 2019) In a study by Nehra et. al where they evaluated women of advanced maternal age, a diet rich in omega 3 fatty acids showed an effective avenue for delaying ovarian aging and improving oocyte quality. Highlighting the importance of omega 3 supplementation with your patient is essential, not only in conception but also throughout the pregnancy and beyond as it helps with neurological and brain development.

Detoxification and elimination of toxic exposure: The hair mineral and heavy metal test is key in highlighting toxicity, and as the research states, this is very important to address as it can be a barrier to fertility. Proper detoxification of heavy metals must occur and retesting to show complete elimination from the body prior to conceiving is important.

Acupuncture: Acupuncture may help a couple conceive depending on the reason for infertility. I have had some success in treating infertility with acupuncture treatments. Acupuncture can help a patient to lessen stress which can aid in hormonal balance and it can also improve uterine blood flow in the female.

Dietary suggestions: It is important to understand what type of diet your patient is following. Removing refined sugars and eating a low glycemic diet is best. In addition, following an anti-inflammatory diet rich in fruits and vegetables is also effective. An IgG Food Sensitivity Test can also be ordered here if you suspect food sensitivities and impaired digestion. It is a great way to get people to eat better and remove foods that create inflammation in the gut.

Exercise: For some couples, weight loss can do great things for the hormonal system. If your patient is overweight, counseling around weight loss and exercise is important and can make the difference, especially in women who have PCOS and other ovulatory disorders.

Keep in mind that each patient and couple will differ in their reasons for infertility. This is not a “one size fits all”. Understanding the big picture of their health is important and always show compassion in helping.

Thank you for reading. Wishing you continued success in your practice!

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