



Women's Health Update

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An Alternative Approach to Infertility in Women

It is estimated that as many as 15% of all heterosexual couples in the United States have difficulty in conceiving children. Approximately one third of the time, it is related to issues in the man's health, one third of the time female, and one third of the time a combination of the two. Infertility has been the source of much heartache, suffering and medical costs. The foundations of the infertility workup in women are the medical history, physical examination, documentation of ovulation, endocrinologic metabolic evaluation and hysterosalpingogram. Ovulatory dysfunction is the cause of 45% of all anovulation in female infertility. Basal body temperature and ovulation test kits are the hallmark of determining ovulation. One common cause of anovulation is polycystic ovarian syndrome (PCOS) which affects 5 to 7% of reproductive aged women. A physical exam may reveal atrophic changes, uterine fibroids, adhesions, endometriomas or other masses. A pelvic ultrasound will be an important step in determining fibroids and ovarian masses. Thyroid-stimulating hormone (TSH) and prolactin levels are also a fundamental aspect of the infertility workup, especially in women who are not menstruating regularly. Hypothyroidism and hyperprolactinemia are highly treatable causes of infertility. Some women will need blood testing for hormones, or maybe even a hysterosalpingogram to rule out uterine or fallopian tube abnormalities.

In men, it is a process of assessing sperm quality, motility and quantity. This is done in an andrology lab where sperm is accumulated and tested. The majority of men who are infertile suffer from a deficiency in sperm production. Infections in the male genitourinary tract can also play a role in many cases of infertility. These infections may occur in the epididymis, seminal vesicles, prostate, bladder and urethra. Chlamydia is now recognized as the most common and the most serious of the infections in the male genitourinary tract.

The purpose of the evaluation is to get a clear picture of the overall medical and emotional health, and to begin the process of creating a differential diagnosis in regards to the cause of infertility. Determining the cause of the infertility, resolving simple and inexpensive problems, determining the impact of the woman's age on her treatment outcome, counseling, impact of lifestyle on fertility and conversing about realistic expectations are important components to preliminary reproductive counseling.

Lifestyle influences

Certain lifestyle habits can negatively impact a woman's general health and impair her fertility. Cigarette smoking can impair cervical mucus function and alter tubal ciliary transport. Decreased sex steroid production has also been noted in smokers. Smoking also increases the risk of miscarriage, perinatal mortality and low birth weight in infants. Finally, in women, smoking significantly reduces the chance of successful term pregnancy during *in vitro* fertilization treatment.

Caffeine studies have shown associations with having an adverse effect on fertility. More research would be needed to prove a causative effect.

Decreases in endocrine function and ovulation are observed in women who frequently ingest alcohol although again, a causative effect is difficult to prove due to confounding variables. Finally, obesity impairs ovulation as well as interfering with ovulation-inducing drugs (and perhaps herbs). For some women, weight reduction alone can lead to pregnancy.

Increasingly, environmental pollution and exposure to heavy metals, pesticides, estrogen like substances and other chemicals are implicated in cases of infertility in men and women. Depending on the specific exposure, duration and load, different aspects of fertility can be affected. These toxic exposures may affect sperm counts, sperm formation, sperm viability, ovulation, egg viability, and hormone levels.

Enhancing female fertility with nutrition and botanicals

In addition to the nutritional issues mentioned in the lifestyle section, underweight women may need to gain weight to enhance fertility, and overweight women may need to lose weight, in the neighborhood of 10%. In women who have a short menstrual cycle, increasing soy in the diet, or taking soy isoflavone supplements may increase the length of the follicular phase and delay ovulation.¹ Something as simple as flax seeds, can lengthen the luteal phase of the cycle (the second half), and increase the frequency of ovulatory menstrual cycles in women who don't ovulate regularly.² Some simple vitamin and mineral supplementation may be keys to fertility in selected women. Vitamin E can assist the achievement and maintenance of pregnancy in women with habitual miscarriages.³ A double blind trial found that taking

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▶ a multivitamin-mineral supplement increased female fertility.⁴ Perhaps the two most compelling supplements are arginine and PABA. Arginine supplementation with 16 grams per day has been shown to improve fertilization rates in women who had previously failed *in vitro* fertilization⁵ and PABA supplementation of 100 mg four times daily resulted in pregnancies in 12 of 16 women with a history of infertility.⁶

Chaste tree berry (*Vitex agnus-castus*) stimulates the release of luteinizing hormone (LH) from the pituitary gland and mildly inhibits FSH. The result is an indirect ability on the part of *Vitex* to raise or modulate progesterone levels.⁷ *Vitex* also modulates the secretion of prolactin from the pituitary gland and in one study prolactin was significantly reduced while shortened luteal phases and progesterone deficits were normalized.⁸

Similar to chaste tree, black cohosh (*Cimicifuga racemosa*) can also stimulate pituitary secretion of LH and therefore lead to ovulation and subsequent production of progesterone by the corpus luteum.^{9,10} Black cohosh may be especially valuable for women in their 40's whose FSH levels may be starting to increase as the ovary ages.

Numerous plants have been used in traditional herbal medicine due to their ability to regulate the tone of the uterus. In cases of infertility due to the lack of any other determined cause, these uterine tonics are thought to potentially prepare the uterus for implantation of a fertilized egg. These herbs

include Dong quai (*Angelica sinensis*), Blue cohosh (*Caulophyllum thalictroides*), Crampbark (*Viburnum opulus*), False unicorn or helonias (*Chamaelirium luteum*) and Squaw vine (*Mitchella repens*).

Dong quai can tonify a weakened uterus by improving the metabolism within the uterus¹¹ as well as regulating hormonal control and improving the timing of the menstrual cycle.¹² Blue Cohosh can improve the muscular tone of a hypotonic uterus and thereby was thought by early traditional herbalists to improve fertility. Crampbark has been used more in cases of miscarriage rather than actual infertility. It has been used traditionally both as a uterine sedative and a uterine tonic. False unicorn or helonias has been used to improve uterine tone and decrease what has been called "pelvic congestion." This herb also tends to be used more for women who have a history of miscarriage or abnormal bleeding during the pregnancy rather than true infertility. Squaw vine is a uterine tonic that increases the circulation to and in the uterus thereby reducing uterine congestion. It can both sedate a hypertonic uterus as well as tonify a hypotonic uterus.

Ginseng species are an important consideration in infertility due to its ability to enhance overall health, vitality, stamina and endurance. Siberian ginseng may be able to promote regulation of reproductive hormones thereby regulating the timing of ovulation.¹³

Polycystic ovarian syndrome (PCOS), also known as chronic anovulatory syndrome is the association of hyperandrogenism with chronic anovulation in women without specific underlying diseases of the adrenal or pituitary glands. One of the characteristics is infertility, although some PCOS patients may randomly ovulate and are fertile that month. PCOS is a complicated disorder which takes a very comprehensive multifactorial approach. Several herbs may have a role. Flax seeds, nettles and green tea stimulate sex hormone-binding globulin which can lower the elevated estrogens and androgens. Saw palmetto can inhibit 5 alpha reductase which then inhibits the conversion of testosterone to dihydrotestosterone and smilax and sanguinaria may be able to produce a progesterone effect. All of these mechanisms, plus modifying insulin resistance and/or lowering a hypersecretion of insulin, treating the underlying endocrine problem and inducing ovulation are the keys to treating PCOS.



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Conclusion

An organized and methodical approach to determine the etiology of infertility will lead one to the best therapeutic approach – whether conventional, nutritional/botanical, or a concurrent use of both. The mechanism-specific herbs are to be used in the selected underlying cause. A practice of using reliable scientific resources to look up drug/herb interactions is always prudent although the herbs we have discussed have enjoyed a long history of safety when used on their own.

A treatment approach that ultimately results in a healthy baby can be one of the most satisfying moments in providing health care.

References

- Cassidy A, Bingham S, Setchell K. Biological effects of a diet of soy protein rich in isoflavones on the menstrual cycle of premenopausal women. *Am J Clin Nutr* 1994;60:333-340.
- Phipps W, Martini M, Lampe J, et al. Effect of flax seed ingestion on the menstrual cycle. *J Clin Endocrinol Metab* 1993;77:1215-1219.
- Bayer R. Treatment of Infertility with vitamin E. *Int J Fertil* 1960;70-78.
- Czeizel A, Metneki J, Dudas I. The effect of preconceptional multivitamin supplementation on fertility. *Int J Vitam Nutr Res* 1996;66:55-58.
- Battaglia C, Salvatori M, Maxia N, et al. Adjuvant L-arginine treatment for in-vitro fertilization in poor responder patients. *Hum Reprod* 1999;14:1690-7.
- Sieve B. The clinical effects of a new B complex factor, para-aminobenzoic acid, on pigmentation and fertility. *South Med Surg* 1942;104:135-139.
- Amann W. Removing an ostipation using Agnolyt. *Ther Gegenw* 1965;104(9): 1263-1265.
- Milewicz A, Gehdel E, et al. Vitex agnus castus extract in the treatment of luteal phase defects due to hyperprolactinemia: Results of a randomized placebo-controlled double-blind study. *Arzneim-Forsch Drug Res* 1993;43:752-756.
- Jarry H, et al. Studies on the endocrine effects of the contents of *Cimicifuga racemosa*, 1: in vitro binding of compounds to estrogen receptors. *Planta Med* 1985;1:46-49.
- Jarry H, et al. Studies on the endocrine effects of the contents of *Cimicifuga racemosa*, 2: influence on the serum concentration of pituitary hormone in ovariectomized rats. *Planta Medica* 1985;1:46-49.
- Zhu D, Dong Quai. *Am J Chinese Med* 1986;XV(3-4): 117-125.
- Zhiping H, et al. Treating amenorrhea in vital energy-deficient patients with *Angelica sinensis*. *J Trad Chin Med* 1986;6(3):187-190.
- Darymov, L.V. On the gonadotrophic effect of *Eleutherococcus glycosides*. *Lek. Srd. Dalinego Vostoka* 1972;11:939-944.

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- Lamm DL et al. Megadose vitamins in bladder cancer: a double-blind clinical trial. *J Urol* 151(1):21-6, 1994
- Lockwood K et al. Apparent partial remission of breast cancer in 'high risk' patients supplemented with nutritional antioxidants, essential fatty acids and coenzyme Q10. *Mol Aspects Med* 15 Suppl:s231-40, 1994
- Taylor PR et al. Effect of nutrition intervention on intermediate endpoints in esophageal and gastric carcinogenesis. *Am J Clin Nutr* 62(suppl):1420S-3S, 1995
- Wang GQ et al. Effects of vitamin/mineral supplementation on the prevalence of histological dysplasia and early cancer of the esophagus and stomach: results from the General Population Trial in Linxian, China. *Cancer Epidemiol Biomarkers Prev* 3(2):161-6, 1994
- Jaakkola K, et al. Treatment with antioxidant and other nutrients in combination with chemotherapy and irradiation in patients with small-cell lung cancer. *Anticancer Res* 12:599-606, 1992

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