

# Supporting Fertility



Healthy  
Hormones

# Fertility

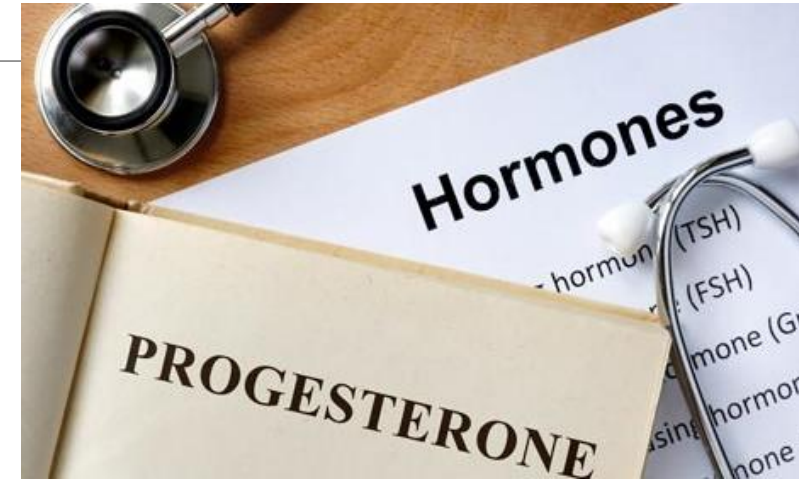
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- An imbalance in hormones can be it most frustrating when a women is trying to get pregnant
- The most natural process can be a nightmare
- Food, lifestyle choices can make a big difference
- There are many strategies than we can do as nutrition professionals to improve a woman's chances of conceiving



# From A Hormone Perspective

- High Estrogen/Low progesterone
- Signs:
  - Shorter luteal phase – less than 11 days - corpus luteum may not have formed properly due to low progesterone
  - Lower basal temperature – progesterone increase body temperature (progesterone stimulate thyroid function)
  - Premenstrual spotting (3-4 days before) – Progesterone stabilizes the uterine lining so it does not shed too soon (endometriosis, ovarian cysts also cause spotting)



# Hormones and Fertility

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- Clear, stretchy cervical mucus in the luteal phase - progesterone dries it up
- High insulin cause low FSH and high LH
- Also causes low SHBG (sex hormone binding globulin) made in liver which keeps estrogen and testosterone levels in check
- High testosterone also affects ovulation and low FSH and high LH
- Low estrogen also suppresses ovulation and prevents the uterine lining from developing



# Causes of Infertility

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- Polycystic ovarian syndrome (PCOS) and possible elevated prolactin levels
- Elevated TSH and hypothyroidism
- Eggs not being released (ovulation issue)
- Inflammation in the fallopian tubes, causing a blockage (Chlamydia may be a reason)
- Endometriosis, uterine fibroids
- Early menopause
- Cushing's disease, kidney problems and diabetes – not clear if these are causes or factors
- Hormonal Imbalances



# Factors That Affect Fertility

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- Stress and lifestyles issues
- Caffeine, alcohol, smoking, poor nutrition
- Age – based on current statistics
- Overweight – linked to insulin resistance which is linked to ovulation issues
- Underweight – May have irregular ovulation or miss ovulating
- Environmental toxins – xenoestrogens – affects egg viability, ovulation and hormone levels



# Stress and Fertility

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- Impairs follicle health and development and can reduce the secretion of estrogen from the follicle
- This will reduce the thickness of the endometrium and the fertile mucous
- Can reduce secretion of progesterone from the corpus luteum in the luteal phase
- This affects implantation.
- Can cause other luteal phase defects
- Can affect ovulation by interfering with the increase in LH which is responsible for stimulating ovulation



# Stress and Fertility

- Stress increases prolactin which can suppress ovarian function
- Prolactin is controlled by dopamine and prolonged stress and high cortisol depletes dopamine (first it increases it)
- Prolactin also regulates immune function and behavior (actually has 300 functions)
- Low thyroid and pituitary tumour are correlated with high prolactin as well.
- Too little prolactin may be due to underactive pituitary function
- Stress also affects the immune system which has a role in preventing miscarriage in the early stages of pregnancy



# Improving Fertility

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- Ideally, woman is worked with at least six months before conception
- Improve liver function (possible cleanse)
- Improve gut health (possible Candidiasis protocol)
- Stabilize blood sugar
- Increase whole foods in the diet
- These four steps very important plus...



# Improving Fertility

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Lower stress!! Meditation, deep breathing, mindfulness

Prior to conception, adrenal adaptogens are helpful

Massage has been shown to lower cortisol and increase both serotonin and dopamine

Hugging also helps lower cortisol

Proper sleep essential for reducing stress and improving fertility

Exercise 3-5 times a week – aerobic, yoga, Pilates, weight training



# Nutrients For Fertility

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- Dairy products and ovulation issues
- In the study, consumption of low fat dairy was associated with ovulation issues in comparison to high fat dairy
- So avoid low fat dairy
- Full-fat kefir, yogurt, raw milk cheese and other fermented foods are helpful for fertility
- Lactobacillus bacteria is essential to maintaining normal vaginal microflora and preventing vaginosis which can inhibit sperm in the vaginal canal
- Poor microflora is associated with miscarriage and preterm birth



# Nutrients For Fertility

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- Vitamin B6 (100 mg) – to help balance progesterone levels and helpful for premenstrual irritability
- Folic acid (1 mg) – Infertile women are often deficient and helps prevent neural tube defects
- B12 (1 mg) – helps improve fertility
- Vitamin E (400 IU) – may help prevent miscarriage
- Vitamin C (1000 mg) – improves function of ovaries and increase progesterone (may enhance fertility drug clomiphene)



# Nutrients For Fertility

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- Zinc (25 mg) protects against heavy metals – a deficiency is associated with miscarriages and chromosome issues
- Deficiency of iron (15 -20 mg) may mean trouble conceiving
- Antioxidants – selenium, phytonutrients - protect against free radical damage, and protect the body from environmental toxins that may cause chromosomal damage
- Fish oil or chia or flax seeds (co-factors) to counter PG2
- Maca – rich in essential amino acids and key nutrients – has been used for fertility



# Nutrients For Fertility

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- Nettle, red raspberry and red clover tea are known to enhance fertility
- Sea vegetables for thyroid support – arame, nori, kombu, hiziki, wakame
- B6 foods – Chicken, fish, seeds, whole grain rice, garlic, molasses
- Zinc foods – oysters, pumpkin seeds, sesame seeds, beef, lamb, spelt
- Folic acid and iron foods – Legumes, lentils, green leafy vegetables,



# Nutrients for Fertility

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- Vitex (Chasteberry) – helps balance progesterone, LH and prolactin
- Rhodiola – an adrenal adaptagen that may also be helpful for regulating menstrual cycles especially in women with no period
- Liver support – containing milk thistle
- Schizandra – supports liver function, helps detox out excess estrogen and xenoestrogens, support immune function and stabilize blood sugar



# Other Considerations

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- Castor oil packs on the abdomen can help increase circulation and improve immune function
- Consider doing a household makeover with a client – remove toxic household cleaners and chemicals, more glass, less plastic, chemical-free beauty products
- Buy organic foods, as much as possible
- Avoid mercury – stick with low mercury fish – salmon, pollock, tilapia, herring, Arctic char
- Drink plenty of clean water
- Dry skin brushing – for the lymphatic system



# Other Considerations

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Consider a hormone test to see the hormone levels – helpful at the very beginning - can help determine what work needs to be done (ie liver cleanse etc.)

Consider is hair mineral analysis test is worthwhile to look for heavy minerals

Consider a zonulin/IgG test for food sensitivities if clients has major digestive issues



# Working With Clients

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- If planning to work with client with fertility issues, remember your program should reach out to them well before conception
- If you plan to work with them as they come to you as a part of a practice, then implement what can depending on where they are at
- Women are not taught that there is something they can do with food and lifestyle
- The key is letting them know there are things they can do

