

Fertility Matrix Sperm Motility Support

A powdered blend of evidence-based nutrients to improve sperm motility, morphology and count, supporting optimal male fertility. Pineapple flavour for improved compliance.



Vegan

GMO Free

Gluten Free

Soy Free

Dairy Free

- Designed to support male fertility, including sperm motility, morphology and count, as well as testosterone levels and libido
- Coenzyme Q10 and acetyl-L-carnitine provide mitochondrial support to improve sperm parameters and improve pregnancy rates
- Zinc and selenium are delivered in their bisglycinate chelate forms for optimal absorption and tolerability, designed to provide antioxidant support to combat reactive oxygen species and ultimately improve spermatogenesis and sperm parameters
- Suboptimal vitamin D levels are associated with low testosterone levels in males and supplementation may help to increase testosterone in vitamin D deficient individuals
- Saffron has been demonstrated to effectively improve symptoms of erectile dysfunction, increase overall

sexual function and improve sperm parameters in males

- KSM-66 ashwagandha is a proprietary full-spectrum extract of withania root, made without alcohol or chemical solvents, and has been shown to improve sperm parameters, muscle strength and testosterone levels in males
- Each 150 gram bottle contains a 25 day supply in a pineapple flavoured powder for improved compliance and ease of use
- Vegan and free from GMO's, gluten, soy and dairy

As many as 1 in 6 Canadian couples now experience fertility challenges. Of course, infertility may arise as a result of male or female health issues, or some combination of concerns with both partners. While there may be multiple underlying causes or complicating factors, male infertility is often caused by poor sperm morphology, decreased sperm count, suboptimal sperm motility, or some combination of



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the three concerns. **Fertility Matrix - Sperm Motility Support** by Cyto-Matrix is designed to improve all of these sperm parameters, increase testosterone and, ultimately, improve male fertility.

A common theme surrounding disrupted sperm parameters is mitochondrial damage as a result of reactive oxygen species from environmental exposures. This generally explains the detrimental effects of alcohol, smoking, poor diet and other factors that impact male fertility. However, this may also explain why a number of reviews and meta-analyses have definitively demonstrated the ability for antioxidants and mitochondrial nutrients to not only improve sperm parameters, but also increase live birth rates and pregnancy rates in subfertile couples.

Coenzyme Q10 is one of the most promising antioxidants for treating male infertility. As a necessary nutrient for mitochondrial function and ATP energy production, there are dozens of studies on its own or in combination with other nutrients that demonstrate beneficial effects on sperm parameters. A 2021 systematic review of 24 trials found that **Coenzyme Q10** doses of 100-400mg/day led to consistent improvements in sperm motility, morphology and count, seminal antioxidant activity and pregnancy rates. While duration of treatments tended to correlate positively with sperm parameters, some studies even found beneficial effects on sperm parameters for up to 12 months after supplementation discontinuation.

As mentioned, CoQ10 for the purposes of improved male fertility is often paired with other nutrients such as **zinc** and **selenium**. **Zinc's** function in various aspects of male health, including testosterone production, has long been studied and its impact on fertility and sperm health is no different. A meta-analysis of 20 studies found that zinc concentrations in seminal plasma were significantly lower in infertile

males and that supplementation is capable of increasing semen volume, while also improving sperm motility and morphology. Zinc in combination with other vitamins such as vitamin E, C and folate have also shown to benefit sperm count. When it comes to **selenium**, not only is it beneficial for sperm parameters when combined with other antioxidants like zinc and CoQ10, but solo supplementation of 100mcg or more per day over 3 months shows benefit for sperm counts and motility. This makes sense given that selenium is necessary for proper spermatogenesis.

Keeping with the theme of mitochondrial energy production, high concentrations of **carnitine** are found in the male reproductive tract, especially in the epididymis, suggesting its crucial role in energy metabolism and in the maturation of spermatozoa. Carnitine provides energy to the sperm by transporting fatty acids into the mitochondria, thereby improving sperm motility. Over a dozen human clinical trials have confirmed the use of either L-carnitine, Acetyl-L-carnitine (the form capable of entering the central nervous system) or a combination of both for improved sperm motility and vitality, while a number of these same studies have shown improved pregnancy rates.

In regards to testosterone production, **Vitamin D** is another key nutrient above and beyond zinc. While more research is needed to determine the exact relationship for testosterone regulation, serum **vitamin D** concentrations have been found to be a significant, positive predictor of total testosterone levels in a number of observational trials. In addition, one interventional trial found that **vitamin D** supplementation helped to increase testosterone levels in men with **vitamin D** deficiency at baseline.

Finally, various herbal extracts have proven beneficial for male infertility, from improved sperm parameters to greater libido. *Crocus sativus*, more



commonly known as **saffron**, is one example of a traditional spice that now has evidence to support its classic use as an aphrodisiac. Not only has **saffron** been studied for mood related concerns, cognitive function and sleep, but modern research has confirmed that for males it can effectively improve symptoms of erectile dysfunction, increase overall sexual function and improve sperm parameters.

Withania somnifera, an adaptogenic herb also known as ashwagandha, has similar application in the men's health world. Specifically, **KSM-66®** ashwagandha, a proprietary full-spectrum extract of withania root, is unique from other Ashwagandha root extracts as it has been studied and shown to improve sperm parameters, muscle strength and testosterone levels in males. One KSM-66® study showed a 167% increase in sperm count, 53% increase in semen volume and 57% increase in sperm motility in oligospermic men after 90 days. KSM-66® also has over 20 human clinical trials to support its efficacy in areas of memory and cognition, stress reduction, improved thyroid function and weight management.

Fertility Matrix - Sperm Motility Support combines all of these evidenced based nutrients to support sperm motility, morphology and count, optimize testosterone levels, boost libido and improve fertility in males. **Fertility Matrix - Sperm Motility Support** is offered in a convenient pineapple flavoured powder for improved compliance and ease of use. Each 150 gram bottle contains a 25 day supply. **Fertility Matrix - Sperm Motility Support** is vegan and free from GMO's, gluten, soy and dairy.

Each 6g scoop contains

Acetyl-L-Carnitine (HCL)	3000mg
KSM-66® Ashwagandha (root, <i>Withania somnifera</i>) 12:1, DHE 7200mg, 5% withanolides***	600mg
CoQ10 (Coenzyme Q10)	300mg
Safr'Inside™ saffron extract (stigma, <i>Crocus sativus</i>) 5:1, DHE 150mg*	30mg
Zinc (Albion™ zinc bis-glycinate chelate)**	25mg
Selenium (Albion™ selenium glycinate complex)**	55mcg
Vitamin D3 (Cholecalciferol)	1000IU / equiv. to 25mcg

* Safr'Inside™ is a
TM trademark of
 ACTIV'INSIDE.
 **Albion™ and
 TRAACS™ are
TRAACS trademarks of Albion
 Laboratories, Inc. U.S.
 Patents 7,838,042.
 *** KSM-66 is a
® registered trademark
 of Ixoreal Biomed Inc.

Non-Medicinal Ingredients

Citric acid, dextrin, malic acid, silicon dioxide, stevia leaf extract, maltodextrin, glycine, acacia gum, natural orange flavour, natural pineapple flavour.

Recommended Use Claim

Helps to promote healthy sperm motility and support libido. Used in herbal medicine as an Adaptogen to help increase energy and resistance to stress. An antioxidant for the maintenance of good health.



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Directions of Use

Adult males - take one 1 scoop per day in a little water or juice or as directed by a healthcare professional. Take with food, a few hours before or after taking other medications or natural health products.

Cautions and Warnings

Do not use if seal is broken. Consult a healthcare professional prior to use especially if you have benign prostate hypertrophy and/or prostate cancer, if you have been diagnosed with hypoactive sexual disorder, sexual dysfunction, erectile dysfunction, liver disease, kidney disease, thyroid disease and/or a seizure disorder. Consult a healthcare professional prior to use if you suffer from any psychological disorder and/or condition such as frequent anxiety or depression or if you are taking blood pressure medication or blood thinners. To exclude the diagnosis of a serious cause of infertility or if symptoms persist or worsen, consult a healthcare professional prior to use. For Sleep Aid; Consult a healthcare professional if sleeplessness persists for more than 4 weeks (chronic insomnia). Avoid taking with alcohol or products that cause drowsiness.

Duration of Use

Use for a minimum of 8 weeks to see a beneficial effect on physical performance.

Known Adverse Reactions

May cause digestive problems. Some people may experience drowsiness. Exercise caution if operating heavy machinery, driving a motor vehicle or involved in activities requiring mental alertness.



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