PROLOG
HEALTH

Male Fertility Supplement

Supplement Facts		
Serving Size: 2 Capsules **Servings per Container: 30**		
	Amount per Serving:	DV%
Vitamin A (as beta carotene)	5,000 IU	100%
Vitamin C (as ascorbic acid)	90 mg	150%
Vitamin E (as d-alpha tocopherol)	60 IU	200%
Vitamin B2 (riboflavin)	2 mg	108%
Vitamin B12 (as cyanocobalamin)	6 mcg	100%
Vitamin D3 (as cholecalciferol)	4,000 IU	1000%
Folate	400 mcg	100%
Selenium	140 mcg	200%
Zinc (as amino acid chelate)	30 mg	200%
Proprietary Blend:		
CoQ10	300 mg	†
Lycopene	15 mg	†
Grape Seed Extract	100 mg	†
S-Acetyl Glutathione	80 mg	†
L-Methionine	200 mg	†
L-Arginine	250 mcg	†

Quercetin	200 mg	†

* Percent Daily Values are based on 2,000 calorie diet.
† Daily Value not established.

Other Ingredients: Magnesium Stearate, Rice Flour, and Gelatin

The Scientific Basis:

According World Health Organization estimates, about one-half of infertility is due to poor semen parameters (sperm count, motility and morphology) and it has been demonstrated that infertile men have higher levels of oxidative stress than their fertile counterparts. Due to the high amounts of polyunsaturated fatty acids found in sperm cell membranes, the physiological process of sperm cell formation and maturation, spermatogenesis, is especially susceptible to peroxidation (a form of oxidative stress in which oxygen atoms are formed leading to the production of peroxides). Oxidative stress is the imbalance between oxidants (reactive oxygen species, “ROS”) and the antioxidant system. ROS, or oxygen radicals, such as hydrogen peroxides, superoxide anions, singlet oxygen and hydroxyl radicals, are the natural byproducts of oxygen metabolism. Oxygen radicals, however, are unstable, toxic molecules that contain one unpaired electron. These unpaired electrons make free radicals highly reactive such that they can react with lipids, amino acids and DNA/RNA in their vicinity. One free radical can spark a chain reaction, instantly causing a cascade of new free radicals. In the normal state, the seminal plasma contains antioxidants which both negate the effects of these ROS and which protect the sperm cells from oxidative damage. However, during times of physical or environmental stress, the concentration of ROS can increase markedly, leading to extensive sperm DNA damage, reduced sperm motility and defective integrity of the sperm cell membrane.

Oxidative stress can have effects on sperm DNA and may accelerate testicular programmed cell death (apoptosis). In short, oxidative stress in the testes may decrease sperm concentration and progressive motility and may increase the percentage of abnormal forms. These changes are associated with male sub-fertility and infertility as well as miscarriage. Inflammation, immature sperm cells, obesity, heat, prolonged sexual abstinence, varicocele and other environmental factors may also increase oxidative stress.

The protective, buffering antioxidant system in the semen includes enzymes which neutralize the ROS, as well as other non-enzyme antioxidants (Vitamins A, C and E, coenzyme Q10, B2, B6, B12, glutathione). Folic acid, zinc, and selenium also facilitate the antioxidant system. Human, animal, and cell culture studies have shown that a number of specific antioxidants lead to improved semen parameters. Nutritional support in the form of a combination of antioxidants may help guard against ROS and the associated cellular damage.

Lifestyle modifications may also play a major role in reproductive health. Whereas, tobacco, marijuana, alcohol and other toxins can diminish sperm quality, a well-balanced diet and daily aerobic exercise can improve the semen quality.

Dietary changes alone, however, will not provide the high level of nutritional support available in this proprietary blend. The contained, potent antioxidant preparation can help reverse some of the oxidative stress associated with normal aging, toxins and suboptimal diet. It takes approximately 74 days for spermatogenesis and various studies in the reproductive medicine literature have demonstrated that consistent, targeted nutritional support taken for the appropriate duration may improve sperm production in men with fertility disorders.

In a systematic review, Ross and coworkers analyzed the efficacy of antioxidant therapy for male infertility. The expansive study reviewed various antioxidants including astaxanthin, carnitines, folic acid, N-acetylcysteine, selenium, vitamin C, vitamin E and zinc. Of the 3,740 citations reviewed, 16 studies investigated the effect of antioxidants on semen quality in 1,605 men and an additional 10 studies evaluated the effect of antioxidants on pregnancy rates. This review concluded that antioxidant treatment of infertile men reduces oxidative stress in the semen and has more impact on sperm motility than on concentration and morphology. In addition this review concluded that antioxidant therapy was associated with a significant improvement in spontaneous pregnancy rates in 6 of the 10 randomized studies and a study that analyzed pregnancy rates after assisted reproductive technologies.

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Disclaimer: None of the above statements have been evaluated by the United States Food and Drug Administration (FDA). These products are not intended to diagnose, treat, cure or prevent any disease. Please consult your health care professional before taking any and all supplements. Individual results may vary.

Every Prolog Health product exceeds the standards and requirements set forth in the FDA's Code of Federal Regulation (21 CFR, 111) Current Good Manufacturing Practices (CGMP).

All products are made in the USA, with all ingredients from the USA.