



be based on published and relevant scientific and clinical data.

ADAM

Male Reproductive Tonic

Adam contains adaptogenic herbs used to support and balance male function. It has been traditionally used to support adrenal function, sexual function and for increasing libido. Adam helps to maintain stamina, endurance, energy production and spermatogenesis. Traditionally used to maintain normal hormone and healthy kidney function.

Active Ingredients

Each tablet contains:

<i>Cola acuminata</i> seed	125mg
<i>Centella asiatica</i> (Gotu Kola) herb	400mg
Asiaticosides (of <i>Centella asiatica</i>)	2mg
<i>Camellia sinensis</i> leaf	500mg
Containing Caffeine	3mg
<i>Epimedium sagittatum</i> (Horny Goat Weed) stem & leaves	1.5g
<i>Eleutherococcus senticosus</i> (Siberian ginseng) Root	2g
Syringaresinol diglucosides	1.08mg
<i>Panax ginseng</i> root	500mg
Ginsenosides (of <i>Panax ginseng</i>)	8.5mg
<i>Ginkgo biloba</i> Leaf	500mg
Ginkgo flavonglycosides	2.4mg
Selenium (From Selenomethionine 186mcg)	75mcg
<i>Tribulus terrestris</i> fruit	3g
Standardised to Protodioscin	3mg
<i>Tumera diffusa</i> (Damiana) leaf	312.5mg
Zinc (Amino Acid Chelate 50mg)	10mg

Dosage

Adults take 1-2 tablets daily or as directed by a qualified healthcare practitioner.

The active ingredients in the Nutrition Care formulations, when professionally prescribed, may assist patients suffering from specific conditions. This statement does not imply or make a claim for a cure for disorders treated with any Nutrition Care products and their use should

Indications

- Aids, assists or helps in the maintenance or improvement of general well-being
- Balances and supports normal male physiology and function
- May be beneficial to men in satisfying physiological requirements of the male body
- Nutritional and herbal support designed to support and enhance masculine needs
- Aids/assists testosterone levels
- Supports levels of testosterone, luteinizing hormone (LH) and dehydroepiandrosterone (DHEA)
- *Epimedium sagittatum*, or Horny Goat Weed has a long history of use in traditional Chinese medicine as a tonic and aphrodisiac to support and improve sexual function and libido
- Supports healthy testosterone levels in men.
- Supports testosterone production and function
- Supports the health of the male reproductive system
- Supports male reproductive health and function
- Zinc is an important mineral for the formation and maturation of spermatozoa
- Selenium is required for testosterone synthesis
- Selenium is required for the health of the reproductive system
- Selenium supports normal sperm motility in healthy people
- Selenium supports the health and function of the male reproductive system
- Selenium supports and maintains prostate health
- Selenium supports the health of the cells of the prostate
- *Tribulus terrestris* has a long history of use in ancient Greece and India as a physical rejuvenation tonic



Tribulus terrestris

Tribulus terrestris is one of the most important ingredients in Ayurvedic preparations. The herb is diuretic, tonic, aphrodisiac and often used in the treatment of painful micturition.^[1] The plant and spiny fruit are cooling, demulcent, diuretic, tonic and aphrodisiac. They are used for spermatorrhoea, and diseases of the genitourinary system such as dysuria, chronic cystitis, urinary disorders and impotence. It is used in Northern India in diseases of the heart and for the suppression of urine production.^[2]

The fruits are used for many purposes, including stomachic, tonic, diuretic, alterative, and aphrodisiac. They are also used in bladder disorders as a diuretic and to treat urinary calculi. *Tribulus* contains the steroidal saponin protodioscin which is thought to improve sexual desire and enhance erection via the conversion of protodioscin to dehydroepiandrosterone (DHEA).^[3]

Preliminary research suggests that *Tribulus* increases levels of testosterone, luteinizing hormone (LH), DHEA, and dihydrotestosterone. It may also have aphrodisiac activity. These effects are attributed to the protodioscin constituent of *Tribulus*. Preliminary clinical research suggests *Tribulus* might have anti-angina activity. It seems to dilate coronary arteries and improve coronary circulation. It also may lower blood pressure by inhibiting angiotensin-converting enzyme (ACE).^[4]

The exact mechanism by which *Tribulus* influences sexual behaviour is not known, but increasing androgenic status and nitric oxide

(NO) release appear to be chiefly responsible. More specifically, some reports have suggested increases in DHEA and testosterone is possible. The constituent protodioscin is considered the most important in this regard and is converted to DHEA. Traditionally, the fruits are thought to be cooling and are used for painful micturition, urinary disorders, kidney stone prevention and impotence.^[5]

***Panax ginseng* (Korean ginseng)**

Mean international index of erectile function scores were significantly higher in the patients treated with Korean ginseng than in those who received placebo. Scores on questions 3 (penetration) and 4 (maintenance) were significantly higher in the ginseng than the placebo group. In response to the global efficacy question, 60% of patients answered that Korean ginseng improved erection. Among other variables, penile tip rigidity on RigiScan showed significant improvement for Korean ginseng versus placebo. Mean scores for erectile function, sexual desire and intercourse satisfaction domains for Korean ginseng treatment were significantly higher than for placebo.^[6]

From the available data it appears that *Panax ginseng* may possess the ability to improve erectile function. Preliminary conclusions suggest its primary mechanism is mediated through increased NO levels, resulting in improved penile hemodynamics.^[7]

Ginseng products are popularly referred to as tonics, a term that has been replaced by “adaptogens” in much of the medicine literature. The term “adaptogen” connotes an agent that



purportedly “increases resistance to physical, chemical and biological stress and builds up general vitality, including the physical and mental capacity to work”. *Panax Ginseng* is used primarily to improve psychological function and exercise performance. In 45 patients with erectile dysfunction, use of ginseng improved function, sexual desire and intercourse satisfaction.^[8]

Panax Ginseng is the best herb to strengthen the body and restore vitality. It improves mental functions. *Panax ginseng* tonifies the qi, calms the shen and improves cognitive function. It also tonifies the yang and is commonly used with kidney yang-tonic herbs to treat impotence.^[9]

Panax Ginseng increases mental and physical capacities and can be used to improve conditions such as weakness, exhaustion, tiredness and loss of concentration. Ginseng has been found to improve endurance, oxygen uptake, heart rate, forced expiratory volume, forced vital lung capacity and visual reaction time during exercise.^[10]

***Turnera diffusa* (Damiana)**

Damiana has been used traditionally for sexual dysfunction or as an aphrodisiac to enhance sexual activity.^[5] Damiana preparations are used as an aphrodisiac and for prophylaxis and treatment of sexual disorders.^[11]

***Epimedium sagittatum* (Horny Goat Weed)**

The glycosides in *Epimedium* may have hormonal effects. Animal research suggests that *Epimedium* promotes semen secretion and stimulates growth of prostate, testes, and anus rector muscles. Some researchers think it may increase testosterone secretion. In traditional Chinese medical texts *Epimedium* is indicated

for impotence, seminal emission, weakness of the limbs and to reinforce the kidney yang.

Epimedium tonifies the kidneys and fortifies the yang: for deficient kidney yang patterns with such symptoms of impotence, spermatorrhea, frequent urination and forgetfulness. It is also known to have an effect on sexual activity: it may increase sexual activity, increase sperm production, stimulates sensory nerves, and thereby increases sexual desire and increases the yang energy.^[12]

***Eleutherococcus senticosus* (Siberian ginseng)**

Used in Herbal Medicine as a tonic to help relieve general debility and/or to aid during convalescence and to help improve mental and/or physical performance after periods of mental and/or physical exertion. It is also used as a prophylactic and restorative tonic for enhancement of mental and physical capacities in cases of weakness, exhaustion and tiredness, and during convalescence.^[13]

Siberian ginseng is used to improve physical and mental responses during convalescence or fatigue states. Its ability to increase levels of noradrenalin and cortisol provide a theoretical basis for its use in situations of fatigue. Siberian ginseng is also widely used to treat individuals with anxiety or nervous exhaustion after chronic exposure to stress, or what is now termed allostatic load situations.^[5]

There is a relatively small number of controlled clinical trials performed with Siberian ginseng. A single blind, placebo-controlled, crossover trial lasting eight days investigated the effect of a



Siberian ginseng extract (2 ml, twice daily) on working capacity and fatigue of six male athletes, ages 21–22.

Oxygen uptake, heart rate, total work, and exhaustion time were measured. Significant results were observed in all parameters, particularly the 23.3% increase in total work capacity noted in the Siberian ginseng test group compared with 7.5% of the placebo group.^[14]

***Camellia sinensis* (Green Tea)**

Green tea is considered a dietary source of antioxidant nutrients. A substantial amount of human intervention studies with green tea demonstrate a significant increase in plasma antioxidant capacity in humans after consumption of moderate amounts. There are also initial indications which show that the enhanced blood antioxidant potential leads to reduced oxidative damage in macromolecules such as DNA and lipids.^[15]

Green tea can be used to reduce the risk of atherosclerosis, cardiovascular disease, myocardial infarction and reduce elevated cholesterol. Green tea and black tea have comparable antioxidant effects that may play a role in lowering the oxidation of LDL cholesterol.^[16]

Ginkgo biloba

Therapeutic indications include neurosensory disturbances such as dizziness, vertigo and tinnitus and enhancement of cognitive performance.^[10]

The antioxidant effects of ginkgo have been shown to reduce the effects of UV radiation on the skin. Ginkgo promotes vasodilation and

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improves blood flow through arteries, veins and capillaries. *Ginkgo biloba* leaf has demonstrated neuroprotective effects in a variety of studies. In 1999, a systemic review of 5 randomised controlled trials concluded that treatment with *Ginkgo biloba* may result in significant improvements in tinnitus. A more recent review of 8 controlled trials confirmed these findings.

***Centella asiatica* (Gotu Kola)**

The anti-inflammatory action of *Centella asiatica* has been demonstrated in clinical trials to be of benefit in the treatment of keloid and hypertrophic scars. A number of studies have demonstrated effectiveness in the improvement of symptoms of venous insufficiency. Standardised extracts of *Centella asiatica* have been shown to aid wound repair.^[17]

Clinical data supports the use of *Centella asiatica* for treatment of wounds, burns, ulcerous skin ailments, and prevention of keloid and hypertrophic scars.^[13]

Taking Gotu Kola orally seems to help treat chronic venous insufficiency. Triterpenes from Gotu Kola may reduce ankle oedema and improve lower leg circulation in venous insufficiency. The Commission E approved the use of Gotu Kola for mental and physical fatigue. It is also indicated as a supportive treatment for depressive states.^[18]

Cola acuminata

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Selenium

Selenium is required for testosterone synthesis, normal sperm maturation and sperm motility. Two clinical studies have confirmed the association and identified selenium as able to increase sperm motility. Xu et al identified a significantly positive correlation between selenium levels and sperm density, sperm number, sperm motility and sperm viability in human volunteers. Supplementation with selenium in selenium depleted sub fertile men has been shown to improve sperm motility and the chance of successful conception in over half of the treated patients.

Selenium is an integral part of the thioredoxin reductase and the glutathione peroxidases and therefore is intimately involved in the body's antioxidant systems. These enzymes are involved in controlling tissue levels of free radicals and maintaining cell-mediated immunity. Confirmed in both human and animal trials, immune modulation is in part due to improved activation and proliferation of B-lymphocytes and enhanced T cell function. Several intervention trials of either double blind or open design have shown selenium supplementation can enhance immune function and decrease the risk of developing certain infections. Selenium is required for normal thyroid hormone synthesis, activation and metabolism. Three different selenium dependent iodothyronine deiodinases can both activate and deactivate thyroid hormones. Selenium is therefore an essential element for normal development, metabolism and regulation of thyroid hormones.^[5]

Sufficient selenium intake has been indicated in prostate health and sperm motility. Selenium

may assist in sperm fertility. Selenium is a trace mineral and an important part of the enzyme glutathione peroxidase. It is an effective antioxidant. Working as part of this enzyme, selenium helps protect intracellular structures by preventing the formation of damaging free radicals. Like other antioxidants, selenium slows chemical aging and helps to maintain the elasticity of bodily tissues, organs and the cardiovascular system.

Inositol has therapeutic effects in the spectrum of illnesses responsive to selective serotonin re-uptake inhibitors, including depression, panic and obsessive compulsive disorder (OCD).

Selenium also plays a crucial role in preventing or managing coronary heart disease, stroke and cardiovascular disease both before and after heart attacks. Selenium also appears to inhibit platelet aggregation increasing its significance in cardiovascular health. Studies have determined that selenium improves liver and metabolic function, even in extreme cases of alcoholic cirrhosis of the liver and increases pancreatic function. Sufficient selenium has been indicated in prostate health and sperm motility. Selenium is required for the antioxidant protection of the lens and protects against cataract formation.^[20]

Zinc

Zinc is necessary for the proper action of many body hormones, including thymic hormones, insulin, growth hormone and sex hormones. Zinc is critical to healthy male sex hormones and prostate function. Zinc is critical to healthy male sex hormone and prostate function. Zinc deficiency is characterised by decreased testosterone levels and sperm count. Zinc is used



in virtually every aspect of male reproduction, including hormone metabolism.^[21]

Zinc has been shown to inhibit the activity of 5-alpha-reductase, the enzyme that irreversibly converts testosterone to DHT. Zinc also inhibits specific binding of androgens to the cytosol and nuclear androgen receptors.^[17]

Zinc plays a role in reproduction, growth and development, thyroid hormone function, and insulin action. Zinc deficiency is characterized by growth retardation, low insulin levels, reduced levels of insulin-like growth factor (IGF)-1, decreased thyroid function & delayed onset of puberty. Clinical research suggests that short-term dietary zinc depletion results in reduced serum testosterone concentration.^[22]

Zinc has multiple actions on the metabolism of androgen hormones oestrogen and progesterone.^[5]

Another important structural role for zinc is the so-called zinc-finger motif in proteins. Zinc fingers enable polypeptides that are too small to fold by themselves to fold stably when stabilised by bound zinc.

Zinc finger proteins regulate gene expression by acting as transcription factors (binding to DNA and influencing the transcription of specific genes). These proteins are involved in the metabolism of reproductive hormones (e.g. androgens, oestrogens and progesterone). Prostaglandins and nuclear receptors for steroids are also zinc finger proteins. Zinc is essential for reproduction. It is necessary for the metabolism of reproductive hormones, ovulation, testicular function, the formation and maturation of sperm, fertilisation and the health of the mother

and foetus during pregnancy. Other roles for zinc include thyroid hormone function and insulin action.^[23]

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