

Support for Erectile Function in Men

Developed and reviewed by the clinical, chiropractic, and naturopathic members of the Standard Process team

Physiology of Erectile Function

Erectile function is primarily a vascular event regulated by the autonomic nervous system. It can be initiated by psychogenic input or tactile stimulation. In response, neurons and endothelial cells release nitric oxide (NO), which activates guanylyl cyclase, increases cyclic guanosine monophosphate (cGMP), and lowers intracellular calcium in smooth muscle cells. This cascade relaxes smooth muscle in the corpora cavernosa, allowing blood to fill the penile tissue. As blood fills the corpora cavernosa and corpus spongiosum, the tunica albuginea compresses venous outflow, creating a veno-occlusive mechanism that creates rigidity. The rise in intracavernosal pressure maintains penile firmness.

Parasympathetic fibers from spinal segments S2–S4 initiate erection, while sympathetic nerves from T11–L2 drive detumescence. The pudendal nerve is responsible for afferent input and motor control of the pelvic floor muscles, which support erection and ejaculation.

Because erectile dysfunction often represents an early marker of cardiovascular and metabolic disease, addressing endothelial health and nutrient sufficiency provides benefits beyond sexual performance, supporting whole-man vitality and long-term cardiometabolic resilience.

Supportive Lifestyle Practices

- Encourage regular exercise to stimulate nitric oxide synthesis, support endothelial function, enhance psychological well-being, and promote testosterone production. Forty minutes of moderate to vigorous exercise at least four times per week has been shown to improve erectile function.¹
- Recommend 7–9 hours of sleep per night, since sleep disruption can impair the hypothalamic-pituitary-adrenal (HPA) axis and lower testosterone production. Poor sleep quality may increase the risk of impaired erectile function.²

- Promote stress management techniques that activate the parasympathetic nervous system and calm sympathetic overactivity. Chronic stress and anxiety contribute to sympathetic dominance, causing vascular constriction, reduced penile blood flow, and loss of rigidity. One study found that eight weeks of stress management exercises significantly improved erectile function scores.³

Whole Foods Nutritional Recommendations

- Encourage the intake of foods rich in B vitamins, like organ meats, seafood, dairy, and eggs to support erectile function.⁴ These foods can support testosterone production and modulate homocysteine levels. Elevated homocysteine is linked to impaired endothelial function, which can negatively affect erectile function.
- Recommend nitrate-rich foods, such as beets and leafy greens. Dietary nitrates convert to nitric oxide (NO), which aids blood flow to the corpora cavernosa and supports penile rigidity. Nitric oxide is the primary vasoactive neurotransmitter that supports erectile function.⁵
- Suggest magnesium-rich foods, such as walnuts, leafy greens like Swiss chard, and legumes to support arterial dilation and endothelial health. Magnesium supports nitric oxide synthesis, modulates the HPA axis to balance sympathetic tone, and has been shown to support testosterone synthesis.⁶ These polyphenol-rich foods also protect against oxidative stress which can reduce nitric oxide availability.

Dietary Supplement Regimen



B Vitality with CoQ10

Suggested Use: **3 capsules**

- Provides nutrients that support antioxidant activity*
- Contains coenzyme Q10, a nutrient that is essential for generation of energy within the mitochondria of cells and helps protect cells from free radicals*
- Excellent source of riboflavin, vitamin B₁₂, biotin, and pantothenic acid
- Good source of thiamin, niacin, vitamin B₆, and folate



SP® Red Food

Suggested Use: **3 capsules**

SP® Red Food is a whole food-based supplement containing a mix of phytonutrients from Standard Process farm-grown, organic, whole red beetroots and mountain spinach (*Atriplex hortensis*), and astaxanthin from whole microalgae.

- Supports healthy blood flow and blood vessel function*
- Promotes healthy insulin functioning*
- Supports healthy glucose and lipid metabolism*
- Helps improve endurance exercise performance*



Magnesium Lactate

Suggested Use: **2 tablets**

Magnesium is critical for the central nervous system, skeletal muscle, and cardiovascular system and is involved in:

- The body's energy production and electrolyte balance*
- Body relaxation and muscle health*
- Supporting normal inflammatory processes for healthy aging*



Rhodiola & Ginseng Complex

Suggested Use: **1 tablet**

Rhodiola & Ginseng Complex is an adaptogenic tonic which contains rhodiola root and Korean ginseng to enhance vitality and stamina.* These herbs have been traditionally used in herbal preparations to:

- Support mental clarity and cognitive function*
- Promote vitality and stamina*
- Help maintain proper energy*
- Support physical endurance*

Assessment of Erectile Function

In Office/Physical Exam

- Vital signs: Blood pressure, heart rate
- Signs/symptoms, such as reduced erectile rigidity, fatigue, low libido, exercise intolerance, and mood disturbances

- Lab studies: Fasting glucose and insulin, HbA1c, lipid profile, hs-CRP, testosterone panel (total/free), SHBG, estradiol, homocysteine, vitamin D 25-OH, zinc
- Functional testing: Waist-to-hip ratio, body composition, vascular reactivity testing (if available)

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