
Natural Alternatives for the Treatment of Impotence and for Improving Men's Health

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Impotence is now a topic for open conversation. Even politicians are talking about impotence. Medically speaking, the term erectile dysfunction more specifically describes the inability to sustain physically an erection that is sufficient for intercourse. Impotence includes a broader grouping of conditions that contribute to less than fully successful intercourse, including diminished libido, inability to reach orgasm, and premature ejaculation.

Current estimates report that approximately 20 million American males experience erectile dysfunction. This number is likely to double within the next decade or so, as baby boomers begin to experience the health challenges that often contribute to this problem, most notably atherosclerosis and prostate disease. Statistical data suggest that one in four men over the age of 50 suffers from erectile dysfunction.¹ This number may even be higher because many men have traditionally not sought medical intervention for this frequently anxiety-provoking and stressful condition.

Although there are many causes of impotence, most conventional and natural approaches focus on either enhancing blood flow to erectile tissue and addressing neurologic health and prostate disease, such as benign prostatic hyperplasia (BPH). From a clinical perspective, optimal erectile function reflects the principle of the least common denominator. That is to say, optimal male reproductive-tract functioning largely depends on each and every component of the system working well. Thus, addressing overall male reproductive health is critical when creat-

ing a therapeutic regime for treating impotence. The important thing to remember is that erectile dysfunction is merely a sign and symptom that frequently indicates either an insufficient blood supply or nerve supply to erectile tissue or prostate disease.

This article reviews some of the most popular natural medicine approaches that have been used successfully to assist, directly and indirectly, patients with impotence. Many of the herbals reviewed have been used successfully by indigenous cultures around the world. This valuable and substantial body of empirical knowledge regarding various herbal uses is now undergoing scientific validation. A good example of the therapeutic benefits of herbal medicine is nicely reflected by yohimbe, the only medicine approved by the Food and Drug Administration (FDA), until the recent advent of the now very popular pharmaceutical interventions.

Lifestyle

When addressing a patient's overall health, lifestyle often plays a significant role in the success of a treatment outcome. Frequently, positive changes made by patients can, in and of themselves, provide substantial therapeutic benefit. Alcohol and tobacco appear to affect sexual function adversely; exercise may enhance it.

Alcohol

The regular use of alcohol leads to oxidative damage to the male reproductive tract, as well as contributing to infertility. Acute alcohol consumption can lead to impaired erectile functioning. Long-term use has been associated with testicular shrinkage and can actually lead to

increased serum estrogens, increased prolactin levels and decreased serum testosterone levels while leading to BPH, which, in and of itself, serves as an independent risk factor for impotence.² In a study of more than 6500 men, conducted in Hawaii over a period of 17 years, a higher incidence of BPH was linked to men who consumed 25 oz or more of alcohol per month.³

Tobacco

Papaverine, a drug that has been commonly used to assist in correcting erectile dysfunction temporarily, was shown to be inhibited after smoking only two cigarettes. This suggests that nicotine has powerful vasoconstrictive properties. Beyond the short-term effect on erectile tissue, over the course of time, nicotine substantially increases the chance for contracting atherosclerosis and impotence.⁴

Exercise

Exercise can make a difference in sexual functioning. A study of 78 men, average age 48, participated in a controlled exercise routine, at 75–80 percent of calculated maximum heart rate, 60 minutes per day for an average of 3.5 days per week. At the end of 9 months, the participants reported that they experienced an increased frequency of adequate and reliable functioning during sex.⁵

Environmental Factors

Men and women are exposed daily to environmental hazards that not only affect their well-being but may contribute to poor sexual functioning. Several of these factors are discussed below with regard to these problems in men.

Adding several nutrients, herbs, and supplements to the diet can make a real difference in the sexual functioning of a patient.

Direct and Indirect Beneficial Effect of Nutrients and Herbs for Treating Impotence

| Nutrient/Herb | Direct Therapeutic Benefit | Indirect Supportive Benefit |
|-----------------------|----------------------------|-----------------------------|
| Arginine | X | |
| Chasteberry | | X |
| Essential fatty acids | | X |
| Flower pollen | | X |
| Gingko | X | |
| Ginseng | X | |
| Potency wood | X | |
| Pygeum | | X |
| Saw palmetto | | X |
| Soy | | X |
| Stinging nettles | | X |
| Yohimbe | X | |
| Zinc | | X |

Cadmium

The major source of cadmium is cigarette smoke, including secondhand smoke. When tissue cadmium levels become elevated they can inhibit zinc activity and increase 5-alpha-reductase, the enzyme responsible for the conversion of testosterone to dihydrotestosterone (DHT), which, in turn, causes prostatic tissue proliferation.^{6,7}

Exposure to Chemicals

There is mounting evidence that chemicals that are found in various food sources, such as hexachlorobenzene, dibenzofurans, dioxin, and other such substances can increase the conversion of testosterone to DHT via increased 5-alpha-reductase activity.⁸

Nutrient Interventions

Adding several nutrients, herbs, and supplements to the diet can make a real

difference in the sexual functioning of a patient. The mechanisms of actions for some of these substances are discussed below and suggested doses are outlined in the box entitled Dosages of Nutrients and Herbs for Treating Impotence.

Arginine

Arginine has been shown to help maintain nitric-oxide levels. Nitric oxide is considered to be the main neurotransmitter in the corpus cavernosum. Arginine exerts this effect by reversing the effects of NG-nitro-L-arginine, an inhibitor of nitric-oxide synthase, the enzyme responsible for nitric oxide formation.⁹ Thus arginine supplementation can result in enhanced penile blood flow.

Essential Fatty Acids

Frequently, patients suffering from BPH often have decreased prostatic and seminal-fluid lipid levels. Administration of essential fatty acids can lessen the

symptoms of prostatic disease, including residual urine and swelling.¹⁰

Proteins

A higher protein diet can help to down-regulate 5-alpha-reduction of testosterone to DHT. The suggested caloric intake is 35 percent carbohydrates, 44 percent proteins, and 21 percent fats (predominantly polyunsaturated fats).⁸

Soy

Soybeans are a rich source of beta-sitosterol and other phytosterols. Beta-sitosterol has been shown to help relieve the symptoms that arise from BPH. In a double-blind study of 200 men that took 60 mg per day of beta-sitosterol, urine flow rate was enhanced.¹¹ Consuming 4 oz of soy yields approximately 100 mg of beta-sitosterol.

Zinc

Zinc has the ability to help with the treatment of impotence as a result of several mechanisms. Zinc helps to inhibit prolactin secretion from the pituitary gland, inhibit the activity of 5-alpha-reductase, and inhibit the binding of androgens to prostatic receptors.

By decreasing prolactin levels zinc helps to counter the increased uptake of testosterone induced by elevated prolactin levels.¹² Zinc's downregulation of 5-alpha-reductase lessens conversion of testosterone to DHT and, when accompanied by decreased receptor sensitivity to androgens, helps to protect the prostate from enlargement.^{13,14}

It has been hypothesized that, as men age, supplementation with zinc may be needed to maintain optimal zinc levels. This suggestion is based on the fact that zinc absorption from the intestines is inhibited

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ited by estrogens and increased by androgens; yet, as a man ages, serum estrogen levels increase, decreasing zinc uptake.

Herbal Interventions

Chasteberry (*Vitex agnus cactus*)

Chasteberry has been shown to lower prolactin levels in both men and women. The predominant research has been performed on female prolactin inhibition. However, a study using 480 mg per day of a chasteberry extract lowered prolactin levels as well. Although a direct correlation has not yet been made between the use of chasteberry and increased erectile function, clinically, this herb may be worth examining.¹⁵

Flower Pollen

Cernilton (Cernitan America, Inc., Utica, Ohio) is a proprietary blend of flower pollen that has been used in Europe for nearly 40 years for the treatment of BPH and prostatitis. The use of Cernilton has been shown to help approximately 70 percent of men suffering from BPH symptoms.¹⁶ The preparation exerts an anti-inflammatory action, relaxes the urethra, helps the contractile function of the bladder, and inhibits the growth of prostatic tissue.¹⁷ Often, as BPH symptoms increase in intensity, the erectile tissue response can become diminished. Hence, for individuals who are suffering from BPH symptoms over the course of months, prostate support can prove beneficial.

Ginkgo (*Ginkgo biloba*)

Research has demonstrated that Ginkgo extracts not only help in enhancing blood flow to the brain, but also enhance blood flow to erectile tissue. In a study of 60

Dosages of Nutrients and Herbs for Treating Impotence

| Nutrient/Herb | Dosage |
|-----------------------|---|
| Arginine | 1000 mg, 3 x/day, not with meals (use cautiously with <i>Herpes</i> spp.) |
| Chasteberry | 250 mg, 2–3 x/day (0.5% agnuside content) |
| Essential fatty acids | 1 tbsp flaxseed oil, 1–2 x/day |
| Flower pollen | 126 mg, 2–3 x/day |
| Ginkgo | 80 mg, 3 x/day (24% flavonglycosides) |
| Ginseng | 100 mg, 3 x/day (5% ginsenosides) |
| Potency wood | 250 mg, 3 x/day (6:1 concentrate) |
| Pygeum | 100 mg, 2 x/day (14% terpenes/beta-sitosterol and 0.5% n-docosanol) |
| Saw palmetto | 160 mg, 2 x/day (85–95% fatty acids and liposterols) |
| Soy | 3–4 oz, 1–2 x/day (or 60 mg of beta-sitosterol) |
| Stinging nettle | 500 mg, 2 x/day (freeze-dried extract) |
| Yohimbe | 15 mg, 1–2 x/day (yohimbine content, prescribed/physician monitored) |
| Zinc | 30 mg, 1x/day |

men who had been diagnosed with erectile dysfunction that had not responded to papaverine, the subjects were given 60 mg of Ginkgo extract per day for up to 18 months. The first sign of improved blood supply was noted by 8 weeks, and by 6 months into the study, 50 percent of the men had regained potency.¹⁸

Another study had two groups of men consume 80 mg of Ginkgo extract 3 times per day. Fifty men with erectile dysfunction were divided into two groups. Twenty men that responded to injections of papaverine, were placed into Group 1. The other 30 men that did not respond to drug injections were placed into Group 2. Both groups were given the extract. Within 6 months, all 20 of the men in Group 1, that had suffered from erectile dysfunction caused by arterial insufficiency, had regained potency. Nineteen men of the thirty men in Group 2 were able to attain an erection with the help of a

drug injection, compared to the lack of response previously seen in this group to drug therapy only.¹⁹

Ginseng (*Panax ginseng*)

There is strong evidence in animal studies that ginseng may offer meaningful help to men with impotence. Among the positive findings of these studies of this herb are increased testosterone levels, increased sexual activity, increased mating behavior, growth of testes, and increased sperm formation. Although meaningful human studies have yet to be conducted, the initial findings are promising.^{20,21}

Potency Wood (*Muira puama*)

Muira puama offers men who are experiencing impotence dual benefits. This herb appears to affect both lack of libido and erectile dysfunction positively. In a

Yohimbine both increases libido and increases blood flow to erectile tissues.

Causes of Impotence

- Vascular insufficiency
- Male reproductive conditions
 - Benign prostatic hyperplasia
 - Prostatitis
 - Reproductive infections
- Endocrine disorders
 - Decreased serum testosterone
 - Elevated serum prolactin
 - Elevated serum estrogen
 - Diabetes
 - Hypothyroidism
- Drugs
 - Antihistamines
 - Antihypertensives
 - Anticholinergics
 - Antidepressants
 - Sedative drugs
- Psychoactive drugs
- Lifestyle
 - Alcohol use
 - Biking (and other sports that put pressure on the pelvic floor)
 - Tobacco use
- Psychologic
 - Depression
 - Performance anxiety
 - Stress
- Neurologic
 - Surgical-induced nerve damage
 - Trauma-induced nerve damage
 - Neurologic diseases (e.g., multiple sclerosis)
 - Neurologic degenerative conditions (e.g., disc impingement)

study of 262 men that reported a lack of libido and inability to sustain an erection, the men were given daily doses of 1000–1500 mg of Muira extract. Within two weeks, 62 percent of the men with lack of libido experienced a significant change for the better and 51 percent of patients with impotence also reported benefits.²²

Pygeum (*Pygeum africanum*)

The sterols and fatty acids in *Pygeum*, in particular the beta-sitosterol and n-docosanol, have been studied extensively and have been shown to relieve symptoms of BPH. Well over 600 patients have participated in clinical trials that have shown *Pygeum* to be effective in lessening signs and symptoms of BPH.^{23,24} *Pygeum* works well individually, yet studies show that its synergistic effect when combined with saw palmetto is even greater.²⁵

Saw Palmetto (*Serenoa repens*)

The liposterols present in saw palmetto inhibit the binding of DHT and estrogen to prostatic receptors, and direct inhibition of 5-alpha reductase, thereby improving symptoms of BPH. Studies of the herb typically use standardized extracts containing 85–95 percent fatty acids and liposterols.^{26,27}

In one such study, 305 men who were suffering from BPH were given standardized saw palmetto at a dose of 160 mg, 2 times per day. Of the participants, 83 percent had dramatic improvement in BPH symptoms after 45 days. At 90 days into the trial, 88 percent of the men reported significant relief.²⁸

These findings are typical for men suffering from mild-to-moderate BPH symptoms.

Stinging Nettles (*Urtica dioica*)

Several double-blind studies have been conducted on extracts of stinging nettle, and

it appears to be a powerful therapy in the reduction of BPH symptoms. The proposed mechanism is that this herb lessens the binding of DHT to prostatic receptors.^{29,30}

Yohimbe (*Pausinystalia johimbe*)

Yohimbe illustrates nicely the potential for an herbal medicine that has a rich history of use to gain scientific validation that proves empirically what indigenous cultures have known for centuries. Until the very recent advent of new oral pharmaceutical interventions for erectile dysfunction, yohimbine the active alkaloid of yohimbe, was the only FDA-approved drug for impotence.

Yohimbine both increases libido and increases blood flow to erectile tissues. This drug's effectiveness ranges from 34–43 percent.^{31,32} The actual effectiveness may be higher because most studies have been performed on populations with a higher-than-normal incidence for other medical complications, such as diabetes and cardiovascular disease.

It should be noted that yohimbe has also been listed as an unsafe herb by the FDA. This is because the herb has a high potential for side effects if misused or if used at higher-than-appropriate levels for a given individual's overall health status. Although available commercially, the strength and potency of yohimbe preparations vary so greatly that a prescription of yohimbine most often offers the most reliable results.

Conclusion

After removing all the mystique regarding sexual functioning, erectile dysfunction is seen to be merely a symptom of a greater imbalance occurring in the body. Indeed, erectile functioning can often serve as a barometer of a man's

Not only can erectile dysfunction be corrected but entire body wellness can be enhanced.

overall health. All too often, impotence reflects cardiovascular disease, neurologic impairment, or reproductive-tract disturbances. By addressing the underlying cause of impotence, not only can erectile dysfunction be corrected but entire body wellness can be enhanced. The marvelous bounty that nature provides us with is unique because the nutrients and herbal medicines used to treat conditions not only alleviate symptoms but offer nourishment to help each patient regain a healthy overall balance. □

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