



Impotence (male and female)

"Of Sleep and Female Potency"

One of the most interesting aspects of human sexuality hasn't emerged from Masters and Johnson-style laboratories where human test volunteers have sex while simultaneously rigged up to a battery of sensors that measure everything from pelvic-floor muscle twitches to skin moisture levels. Rather, it's a nightly rise and fall cycle of erection followed by flaccidity in sleeping men. Indeed, healthy guys experience up to a half dozen discreet erections each night, mainly during periods of dream sleep. Some of these nocturnal erections can last up to an hour or longer.

This phenomenon has been so well documented that it's led to a simple home test to determine if a man's impotence is primarily physiological or psychological. Before going to sleep, a patient is instructed to encircle his flaccid penis with a ring of connected postage stamps, gluing the overlapping ends together with the adhesive already on the stamps. In the morning, if this ring is still intact, it means he didn't have any nocturnal erections, and the problem requires a further diagnostic workup by a urologist. If the ring has been broken, it means he is at least physically capable of having an erection during sleep.

More recently, sleep researchers have discovered that it's not just men who undergo nightly changes in their sex-organ blood-flow patterns. Sleeping women undergo nearly identical changes as well. To be sure, blood engorgement of the vaginal tissues may be harder to see than the changes in a penis as it becomes erect, but more and more doctors now believe that a healthy sexual response in women is as dependant on a well-functioning vasculature as it is in men. Vaginal lubrication, for instance, is just one example of a process that's highly dependent on ample blood flow in the urogenital arteries.



No one knows for sure why the sex organs undergo so much activity while we sleep. When awakened during a period of arousal, some volunteers report having erotic dreams, but more often the process doesn't seem linked to them. One theory is that it's a way of ensuring that plenty of oxygenated blood and nutrients will make their way to sexual tissues.

Given the fact that men and women have the same basic "sexual hydraulics" researchers are now actively investigating the use of drugs, like Viagra, as a way of enhancing female sexuality. Though more research has to be done, it is possible that women could achieve the same benefits as men via the L-Arginine supplementation. Taken regularly, L-Arginine supplements promise to enhance blood-flow patterns to the female sex organs, restoring what might one day soon be commonly known as "female potency." Hopefully more research into this overly neglected area will soon be forthcoming."

A study appeared in 1994 in *The International Journal of Impotence Research*.

Researchers reported the results of a clinical trial in which 15 impotent men were given a very modest 2.8grams of oral L-Arginine daily for two weeks; 15 other impotent men were given identical looking placebo capsules.

Even with this small dose, six of the men receiving L-Arginine showed significant improvement in erectile function. None of the men on placebos improved.

Since then, other publications in medical journals have reconfirmed that this effect is real. Arginine supplements seem to boost erections in the full spectrum of men, from the completely healthy to those suffering from advanced circulatory disease.

In men without erectile problems arginine seems to strengthen and prolong erections. In those with occasional failure, it can reduce the frequency of such occurrences. In men with more serious so-called vascular impotence due to advanced atherosclerosis, hypertension (high blood pressure), or diabetes, dietary arginine can gradually begin to reverse damage and rejuvenate penile function.



This is, of course, not an overnight cure by any means. Given the time it takes to build up significant vessel damage, it seems unlikely that anything could reverse it overnight. But if arginine is taken regularly and consistently, key changes to blood vessels and the endothelium will occur.

Dr Anoop Chauhan of Cambridge, England, was quoted as saying in the ***Medical Tribune (Internist and Cardiologist Edition)*** in December 1995: "we have demonstrated for the first time you can reverse this {aging} effect with L-Arginine.

Pharmaceutical firms determined to come up with revolutionary new impotence cures are likely to give a wide berth to L-Arginine, despite its considerable track record. The reason: Arginine is a non patentable food supplement. Drug companies face considerable costs in researching and testing new medications in order to secure FDA / BMA approval to market them. Without the light of patent protection at the end of the development tunnel, it just does not make economical sense to underwrite such costs.



Steps to Achieving an Erection

- 1 Sexual stimulation causes a variety of nerves originating in the brain to start firing
- 2 Once stimulated, these nerves cause the release of the neurotransmitter acetylcholine in the penis
- 3 This acetylcholine, in turn, causes the endothelial cells in the penile arteries to begin producing Nitric Oxide from L-Arginine.
- 4 Once created, NO triggers the release of "cyclic guanosine monophosphate" (cGMP). (cGMP is one of the many potent vasodilating chemicals found in the human body)
- 5 As cGMP levels build, the smooth muscles of the penile arteries relax, the vessels dilate, and increased blood flow causes swelling of the corpus cavernosa, producing an erection
- 6 Even as NO continues to build up cGMP, another enzyme begins to break it down. This enzyme, phosphodiesterase, appears to act as a break on the overall system, preventing erections from becoming excessive or permanent. (This permanent state – called priapism – can lead to permanent damage to erectile tissue)
- 7 Following climax or other cessation of the sexual tissue, the penile nerves stop firing and the nerve endings cease releasing acetylcholine. Without this acetylcholine signal, the endothelial cells cut back on NO production. Without the NO signal, no more cGMP is produced. What little cGMP remains is soon broken down by phosphodiesterase. The result: the smooth muscle of the penis blood vessels once again contract, and the penis goes back to its nonaroused, compact state.



Fortunately for shareholders in Pfizer, Inc, Viagra works from another part of the ADNO to blood flow biochemical pathway, blocking the production of the enzyme phosphodiesterase which breaks down the cyclic guanosine monophosphate (cGMP). Nitric Oxide fuels the release of cGMP which causes the smooth muscle of the penile arteries to relax, the vessels to dilate and allow the blood to engorge the penis, producing an erection.

So, in impotent men, the little Nitric Oxide that they can produce, slowly but steadily triggers the cGMP and results in an erection.

From the book **"THE ARGININE SOLUTION"**
by Robert Fried, Ph.D., & Woodson C. Merrell, MD with James
Thornton.

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Viagra has been reported to be safe: however the FDA public records reported that between April 1998 and May 1999 there were 1,473 adverse events including 255 serious heart rhythm disturbances, 53 episodes of congestive heart failure (weakened heart), 119 strokes, 517 heart attacks and 522 deaths.

L-Arginine supplementation however is 100% natural and safe.