Having suffered from two of these with another one almost certain to come, I have done some research inspired by the winners of the 1998 Nobel Prize for "their discoveries concerning nitric oxide as a signalling molecule in the cardiovascular system". This article is not backed up by any medical training but is a distillation of trial results and expert opinion, leaving out the sales claims. Colin Leadbetter

Heart Attack, Stroke, Dementia, Circulatory Problems due to Diabetes, and more. Could Erectile Dysfunction be an Early Warning?

The four most common causes of impotence and erectile dysfunction (ED) are:

- Damage to the network of arteries, veins and capillaries (60%)
- Medications (25%)
- Decline in hormones (5%)
- Other, including alcohol intake, physical injury, anxiety, depression (10%)

As you can see from the statistics above, the main cause of ED is a problem with the network of blood vessels that carries blood throughout your body - the vascular system. Most commonly, damage to the arteries is from inflammation and by oxidation of cholesterol, causing lesions and plaque to form and arteries to become rigid and clogged, restricting the healthy flow of blood, which can lead to erectile dysfunction, heart attack, stroke, memory loss, and perhaps many of the diseases of the brain that are becoming something of an epidemic among the elderly.

The Importance of Nitric Oxide

The primary role of Nitric Oxide (NO) is to deliver messages between the body’s cells. It also plays a key role in controlling the circulation of blood and regulating activities of the brain, lungs, liver, kidneys, stomach and other organs. The discovery of nitric oxide and its importance to the health of virtually every human organ was so revolutionary that Robert F. Furchgott, Louis J. Ignarro & Ferid Murad won the Nobel Prize in 1998 for their discovery.

A lack of NO may lead to:

- Heart attack
• Stroke
• High blood pressure
• Diabetic complications
• Erectile dysfunction
• Low immune system
• Memory loss

Restoring the supply of NO to the body will, in up to 60% of cases, significantly improve ED and, as the root cause is the same, should have the same effects on the above conditions. Now we come to L-arginine, a supplement that has been used for many years by athletes, gymnasts, bodybuilders and many other fitness fanatics, and one which has been proven to be completely safe. You may not be familiar with L-arginine but it is one of the 20 most common amino acids, essential for a healthy body. Taking a supplement of L-arginine will quickly restore the NO supply to the whole body.

The following is taken from www.webmd.com, a source of reliable and accurate information about health:

"L-arginine is routinely prescribed to treat heart and blood vessel conditions including congestive heart failure, chest pain, high blood pressure, coronary artery disease, recurrent pain in the legs due to blocked arteries (intermittent claudication), decreased mental capacity in the elderly (senile dementia), erectile dysfunction (ED), and male infertility.

Some take L-arginine for preventing the common cold, improving kidney function after a kidney transplant, high blood pressure during pregnancy (pre-eclampsia), improving athletic performance and boosting the immune system. It is widely used in combination with a number of over-the-counter and prescription medications for various conditions. For example, L-arginine is used along with ibuprofen for migraine headaches; with conventional chemotherapy drugs for treating breast cancer; with other amino acids for treating weight loss in people with AIDS; and with fish oil and other supplements for reducing infections, improving wound healing, and shortening recovery time after surgery. It is also applied to the skin to speed wound healing and for increasing blood flow to cold hands and feet,
especially in people with diabetes, and is used as a cream for sexual problems in both men and women.”

A study at the University of Chicago revealed that ED was a more accurate predictor of significant heart disease than family history, cholesterol, or blood pressure levels. Dr Parker Ward, MD, lead author of the study said, “...the fact that heart disease and ED are linked biologically should come as no surprise”. The penile arteries are smaller than coronary arteries and so they will clog up from oxidized plaque sooner than heart arteries.

**Conclusion**

Damage to arteries and capillaries resulting in ED is a well-known side effect of diabetes. If you have diabetes, are at risk of developing type 2 diabetes, or are simply approaching that age when circulatory problems are likely to occur, it may be worth taking L-arginine to help your body produce more NO.

**Supplementing with L-Arginine**

We now have available a product called **L-citrulline** in powder form. Powder form because the daily dosage is 6 grams, which would mean taking 10 capsules every day. The powder comes with a scoop for easy measuring, and is perfectly safe if the precautions below are understood.

L-citrulline powder is preferred over L-arginine powder because:

- L-citrulline causes a larger increase in blood Arginine levels than Arginine itself
- The dosage of L-citrulline is smaller than L-arginine
- L-arginine tastes really awful

L-citrulline powder can be taken as it is, mixed with any liquid, hot or cold, mixed with food – yoghurt, cereals, etc.

L-citrulline powder is most effective when taken with or just after food.

L-citrulline is a natural product present in many of the foods we eat so it will not cause any health risks when taken at the recommended dose. It is not a replacement for any prescribed medicines but will work alongside such
medication to improve blood flow through the arteries and capillaries. You will know by now just how many diseases are caused by blocked or narrowed blood vessels, many of them incapacitating, and some of them fatal. L-citrulline will not work miracles but it should be very helpful in relieving the symptoms of existing conditions. Please remember that if a sensible diet is followed and regular exercise is taken, this supplement would probably not be needed.

Precautions

- There is not enough reliable scientific information to know if L-citrulline is safe to take during pregnancy or while breast-feeding.
- Allergies or asthma: L-citrulline can cause an allergic response or make swelling in the airways worse.
- Herpes: There is a concern that L-citrulline might make herpes worse.
- Low blood pressure: L-citrulline might lower blood pressure, which could be a problem if you already have this.
- Surgery: L-citrulline might affect blood pressure. There is a concern that it might interfere with blood pressure control during and after surgery. Stop taking L-citrulline at least 2 weeks before scheduled surgery.
- As always, you should consult your GP if you have any concerns about taking any supplements.

Foods containing L-citrulline include watermelon, garlic, chick peas, peanuts, liver, almonds and more but I haven’t been able to find out the daily intake of any of these to get enough citrulline.

Note for Women

A healthy blood supply to all the organs of the body is just as vital for women as it is for men, and though ED by its very nature only affects men, women, too, experience difficulties in the ‘bedroom department’. My research shows that L-citrulline will benefit both sexes equally.

We have been in the health food and health supplement business for many years and our best-selling products have always been those that help relieve the symptoms of erectile dysfunction. There is still an awful lot of embarrassment about this subject and we would like to stress that it is as much a disease as heart disease or diabetes, though it is rarely fatal! As such, the symptoms can, in most cases, be treated successfully.

So, please don’t think “I’ll just have to live with it”. In my case, L-citrulline has made a huge difference and I am hoping that it will also delay the onset of Dementia, Alzheimer’s or Parkinson’s, whichever straw I draw. Time will tell!

Colin