

Sex and the Mediterranean Diet

Sexuality is a very important part of our human existence, both for purposes of procreation as well as pleasure. Although not a necessity for a healthy life, the loss or diminution of sexual function may result in loss of self-esteem, embarrassment, a sense of isolation and frustration, and even depression. Therefore, for many of us it is vital that we maintain our sexual health. Loss of sexual function further exacerbates progression of sexual dysfunction—the deficiency of genital blood flow that often causes sexual dysfunction produces a state of poor oxygen levels (hypoxia) in the genital tissues, which induces scarring (fibrosis) that further compounds the problem. So “use it or lose it” is a very relevant statement when it comes to sexual function, as much as it relates to muscle function.

Healthy sexual function for a man involves a satisfactory libido (sex drive), the ability to obtain and maintain a rigid erection, and the ability to ejaculate and experience a climax. For a woman, sexual function involves a healthy libido and the ability to become aroused, lubricate adequately, to have sexual intercourse without pain or discomfort, and the ability to achieve an orgasm. Sexual function is a very complex event contingent upon the intact functioning of a number of systems including the endocrine system (produces sex hormones), the central and peripheral nervous systems (provides the nerve control) and the vascular system (conducts the blood flow).

A healthy sexual response is largely about adequate blood flow to the genital and pelvic area, although hormonal, neurological, and psychological factors are also important. The increase in the blood flow to the genitals from sexual stimulation is what is responsible for the erect penis in the male and the well-lubricated vagina and engorged clitoris in the female. Diminished blood flow—often on the basis of an accumulation of fatty deposits creating narrowing within the walls of blood vessels—is a finding associated with the aging. This diminution in blood flow to our organs will negatively affect the function of all of our systems, since every cell in our body is *dependent* upon the vascular system for delivery of oxygen and nutrients and removal of metabolic waste products. Sexual dysfunction is often on the basis of decreased blood flow to the genitals from pelvic *atherosclerosis*, the accumulation of fatty deposits within the walls of the blood vessels that bring blood to the penis and vagina.

Sexual dysfunction may be a sign of cardiovascular disease. In other words, the quality of erections in a man and the quality of sexual response in a female can serve as a barometer of cardiovascular health. The presence of sexual dysfunction can be considered the equivalent of a *genital stress test* and may be indicative of a cardiovascular problem that warrants an evaluation for arterial disease elsewhere in the body (heart, brain, aorta, peripheral blood vessels).

The presence of sexual dysfunction is as much of a predictor of cardiovascular disease as is a *strong family history of cardiac disease, tobacco smoking, or elevated cholesterol*. The British cardiologist Graham Jackson has expanded the initials E.D. (Erectile Dysfunction) to mean *Endothelial Dysfunction* (endothelial cells being the type of cells that line the insides of arteries), *Early Detection* (of cardiovascular disease), and *Early Death* (if missed). The bottom line is that heart healthy is sexual healthy.

Many adults are beset with *Civilization Syndrome*, a cluster of health issues that have arisen as a direct result of our sedentary lifestyle and poor dietary choices. *Civilization Syndrome* can lead to obesity, high blood pressure, and elevated cholesterol and can result in such health problems as diabetes, heart attack, stroke, cancer, and premature death. The diabetic situation in our nation has become outrageous—20 million people have diabetes and more than 50 million are pre-diabetic, many of whom are unaware of their pre-diabetic state! It probably comes as no surprise that diabetes is one of the leading causes of sexual dysfunction in the United States.

Civilization Syndrome can cause a variety of health issues that result in sexual dysfunction. *Obesity* (external fat) is associated with internal obesity and fatty matter clogging up the arteries of the body including the arteries which function to bring blood to the genitalia. Additionally, obesity can have a negative effect on our sex hormone balance (the balance of testosterone and estrogens), further contributing to sexual dysfunction. *High blood pressure* will cause the heart to have to work harder to get the blood flowing through the increased resistance of the arteries. *Blood pressure lowering medications* will treat this, but as a result of the decreased pressure, there will be less forceful blood flow through the arteries. Thus, blood pressure medications, although very helpful to prevent the negative effects of hypertension—heart attacks, strokes, etc.—will contribute to sexual dysfunction. *High cholesterol* will cause fatty plaque buildup in our arteries, compromising blood flow and contributing to sexual dysfunction. *Tobacco* constricts blood vessels and impairs blood flow through our arteries, including those to our genitals. Smoking is really not very sexy at all! *Stress* causes a surge of adrenaline release from the adrenal glands. The effect of adrenaline is to constrict blood vessels and decrease sexual function. In fact, men with priapism (a prolonged and painful erection) are often treated with penile injections of an adrenaline-like chemical.

A healthy lifestyle is of paramount importance towards the endpoint of achieving a health quality and quantity of life. Intelligent lifestyle choices, including proper eating habits, maintaining a healthy weight, engaging in exercise, adequate sleep, alcohol in moderation, avoiding tobacco and stress reduction are the initial approach to treating many of the diseases that are brought on by poor lifestyle choices. Sexual dysfunction is often in the category of a medical problem that is engendered by imprudent lifestyle choices. It should come as no surprise that the initial approach to managing sexual issues is to improve lifestyle choices.

Simply by pursuing a healthy lifestyle, Civilization Syndrome can be prevented or ameliorated, and the myriad of medical problems that can ensue from Civilization Syndrome, including sexual dysfunction, can be mitigated.

In terms of maintaining good cardiovascular health (of which healthy sexual function can serve as a proxy), eating properly is incredibly important—obviously in conjunction with other smart lifestyle choices. Fueling up with the best and most wholesome choices available will help prevent the build up of fatty plaques within blood vessels that can lead to compromised blood flow. Poor nutritional decisions with a diet replete with fatty, nutritionally-empty choices such as fast food, puts one on the fast track to clogged arteries that can make your sexual function as small as your belly is big!.

A classic healthy food lifestyle choice is the increasingly popular Mediterranean diet. This diet, the traditional cooking style of the countries bordering the Mediterranean Sea including Spain, France, Greece, Cyprus, Turkey, Southern Italy, and nearby regions, has been popular for hundreds of years. The Mediterranean cuisine is very appealing to the senses and includes products that are largely plant-based, such as anti-oxidant rich fruits and vegetables, whole grains, nuts, seeds and legumes. Legumes—including peas, beans, and lentils—are a wonderful source of non-animal protein. Soybeans are high in protein, and contain a healthy type of fat. Soy is available in many forms—edamame (fresh in the pod), soy nuts (roasted), tofu (bean curd), and soymilk. Fish and poultry are also mainstays of the Mediterranean diet, with limited use of red meats and dairy products. The benefits of fish in the diet can be fully exploited by eating a good variety of fish. Olive oil is by far the principal fat in this diet, replacing butter and margarine. The Mediterranean diet avoids processed foods, instead focuses on wholesome products, often produced locally, that are low in saturated fats and high in healthy unsaturated fats. The Mediterranean diet is *high* in the *good* fats (monounsaturated and polyunsaturated) which are present in such foods as olive, canola and safflower oils, avocados, nuts, fish, and legumes, and *low* in the *bad* fats (saturated fats and trans fats). The Mediterranean style of eating provides an excellent source of fiber and anti-oxidants. A moderate consumption of wine is permitted with meals.

Clearly, a healthy diet is an important component of a healthy lifestyle, the maintenance of which can help prevent the onset of many disease processes. There are many healthy dietary choices, of which the Mediterranean diet is one. A recent study reported in the *International Journal of Impotence Research* (Esposito, Ciobola, Giugliano et al) concluded that the Mediterranean diet improved sexual function in those with the *Metabolic Syndrome*, a cluster of findings including high blood pressure, elevated insulin levels, excessive body fat around the waist and abnormal cholesterol and triglyceride levels. 35 patients with sexual dysfunction were put on a Mediterranean diet and after two years blood test markers of endothelial function and inflammation significantly improved in the intervention group versus the control group. The intervention group had a

significant decrease in glucose, insulin, low-density lipoprotein cholesterol (LDL—the “bad” cholesterol), triglycerides, and blood pressure, with a significant increase in high-density lipoprotein cholesterol (HDL—the “good” cholesterol). 14 men in the intervention group had glucose intolerance and 6 had diabetes at baseline, but by two years, the numbers were reduced to 8 and 3, respectively.

Why is the Mediterranean diet so good for our hearts and sexual health? The Mediterranean diet is high in *anti-oxidants*—vitamins, minerals and enzymes that act as “scavengers” that can mitigate damage caused by *reactive oxygen species*. Reactive oxygen species (also known as *free radicals*) are the by-products of our metabolism and also occur from oxidative damage from environmental toxins to which we are all exposed. The *oxidative stress theory* hypothesizes that, over the course of many years, progressive oxidative damage occurs by the accumulation of the chemicals the accumulation of reactive oxygen species engender diseases, aging and, ultimately, death. The most common anti-oxidants are Vitamins A, B-6, B-12, C, E, folic acid, lycopene and selenium. Many plants contain anti-oxidants—they are concentrated in beans, fruits, vegetables, grain products and green tea. Brightly colored fruits and vegetables are good clues as to the presence of high levels of anti-oxidants—berries, cantaloupe, cherries, grapes, mango, papaya, apricots, plums, pomegranates, tomatoes, pink grapefruit, watermelon, carrots, broccoli, spinach, kale, squash, etc.—are all loaded with anti-oxidants as well as fiber. A Mediterranean diet is also high in *omega-3 fatty acids*, a type of polyunsaturated fat present in oily fish including salmon, herring, and sardines. Nuts—particularly walnuts—have high omega-3 fatty acid content. Research has demonstrated that these “good” fats have numerous salutary effects, including decreasing triglyceride levels, slightly lowering blood pressure, and decreasing the growth rate of fatty plaque deposits in the walls of our arteries (atherosclerosis), thus reducing the risk of cardiovascular disease, stroke, and other medical problems. Mediterranean cooking almost exclusively uses *olive oil*, a rich source of monounsaturated fat, which can lower total cholesterol and LDL cholesterol while increasing HDL cholesterol. It is also a source of antioxidants including vitamin E. People from the Mediterranean region generally drink a glass or two of *red wine* daily with meals. Red wine is a rich source of flavonoid phenols—a type of anti-oxidant—which protects against heart disease by increasing HDL cholesterol and preventing blood clotting, similar to the cardio-protective effect of aspirin.

The incorporation of a healthy and nutritious diet, such as the Mediterranean diet, is a cornerstone for maintaining good health in general, and vascular health, including sexual health, in particular. The Mediterranean diet—my primary diet and one that I have incorporated quite naturally since it consists of the kinds of foods that I enjoy—is colorful, appealing to the senses, fresh, wholesome, and one that I endorse with great passion. Maintaining a Mediterranean dietary pattern has been correlated with less cardiovascular disease, cancer, and sexual dysfunction. And it is very easy to follow. It contains “good stuff”, tasty, filling, and healthy, with a great variety of food and preparation choices—plenty of

colorful fresh fruit and vegetables, a variety of fish prepared in a healthy style, not fried or laden with heavy sauces, healthy fats including nuts and olive oil, limited intake of red meat, a delicious glass of red wine. It's really very simple and satisfying. Of course the diet needs to be a part of a healthy lifestyle including exercise and avoidance of harmful and malignant habits including smoking, excessive alcohol, and stress. So if you want a sexier style of eating, I strongly recommend that you incorporate the Mediterranean diet into your lifestyle. Intelligent nutritional choices are a key component of physical fitness and physical fitness leads to sexual fitness.