

## TOO MANY CHOICES

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Some years ago when I started thinking about health and wellness, the path led directly to nutrition and exercise, both of which have promised to help me through later life in better shape than I would have been. We know that basically the body needs approximately 30 vitamins and minerals, and we know that there are many supplements available to us in the market.

Some of the reasons we take supplements include a desire for anti-aging and longevity, while others are simply for a better diet and more energy. Some need herbal and phytonutrient extracts, while others simply want to maintain their bodies for health and well-being. Some desire basic vitamins and minerals only and feel that they can get the rest of their nutrient intake satisfied through their diet. Then, there are supplements which are basically touted for beauty and personal care, and these include topical nutrients and products for oral ingestion.

Antiaging and longevity supplements are specifically formulated to slow down the aging process so that you might enjoy a longer and healthier life. Some of these are fairly sophisticated, such as the mitochondria energy optimizer extracts. Mitochondria are the smaller particles in every cell which function to produce cellular energy by means of the “ATP cycle” (a term for the process in every cell that metabolizes glucose and turns it into energy). It also produces free radicals and, as part of this reaction, produces nutrients for the body. Mitochondria energy optimizers not only improve energy output of cells, but also clear some free radicals so that they do not damage the cellular proliferation ability of other cells which might accelerate aging. Coenzyme-Q10 is a mitochondria support product that helps convert fats and sugars into cellular energy. It is made in your body, but has a tendency to decrease with advancing age. If the body has enough CoQ10, the mitochondria work well, particularly in the heart muscle. If not, the heart muscle ages faster. When CoQ10 is taken by mouth, only a certain amount is absorbed into the blood stream, so that higher doses may need to be taken to maintain adequate levels.

Other anti-aging supplements include those which improve the immune system. There are a good number in this category, one of which is whey protein. Lactoferrin, immunoglobulins, and other compounds are present in this protein and are known to protect against free radicals in the body which can be damaging. Vitamin C is another major immune supporting compound, and it is one that human beings do not make. By having adequate vitamin C, we add another important ingredient to our antiaging and longevity regimen. Garlic, both in natural form and as a supplement, is useful for its immune supporting properties. It stimulates immunity and white blood cell activity and also the natural killer cells in the body. A component of garlic, allicin, has been highlighted for its particular improvement in the immune response and oxidative stress.

Echinacea extract is a wide-spectrum immuno-modulator that improves both innate and adaptive immune responses. This has been shown in studies to improve the body's defenses against infectious agents.

Diet and energy supplements are often taken by those who are sports-oriented and who want to build their bodies to be stronger, with more muscle, less body fat, and a better performance level. Of course, the boney structure is the foundation for a strong body. Certain supplements which contain vitamin D3 and magnesium along with boron and zinc help protect the bones against age-related loss of bone mineral density. These supplements must be combined with a good diet and elimination of soft drinks and high protein intake. These last two components promote calcium loss, while a more alkaline diet high in natural calcium promotes bone health and strength. Some people take bromelain, which is a proteolytic enzyme from pineapple stems which seems to contribute to better joint health. Glucosamine and chondroitin stimulate the important components of cartilage needed for healthy joints. One of the main problems with aging of the joints is loss of this delicate, but tough cartilage layer that cushions the motion of the bones against each other during physical activity. By having strong dense bones and healthy joints, muscles can be optimized for better performance.

For sports performance, there are many components that are advocated, the most important of which is regular exercise. It has been shown in some of the long-term Scandinavian studies that in identical twins living apart, lifestyle including nutrition accounts for about 80% of longevity, while genetic factors account for about 20%. Of the 80% lifestyle, about 80% of that is related to nutrition and 20% to exercise. We know that you cannot build a particularly strong body for sports performance unless you exercise on a regular basis, stressing your muscles and joints to a small degree to achieve higher levels of performance. However, it is the combination of a good diet, exercise, and supplements which make for good physical fitness.

Herbals and phyto extracts are another whole category of supplements which serve a particular purpose to augment the dietary intake of phytonutrients. We know that phyto (plant) nutrients play a large role in keeping us healthy. First of all, they promote an alkaline environment in our blood stream so that the body's numerous chemical processes are able to function better. By eating berries, green vegetables, grapes, olives, and many fruits, we are able to obtain antioxidants, and these reduce the number of free radicals in our body which raise the body pH to normal. Some of these phytonutrients specifically act as anti-virals, such as coconut oil which contains lauric acid. We can eat blueberries, pomegranate seeds, broccoli, and other nutrient-rich foods, but most of us simply do not have the time or inclination to eat 5 to 7 fruits and vegetables a day. However, many extracts and concentrates are available for us. These include spices such as curcumin, fruits such as pomegranate, grape extract (resveratrol), ginkgo, green tea, and general mixtures of phytonutrient food powders. These food powders contain broccoli extract, cabbage, tomato, carrot, parsley, and other nutrient extracts and can be obtained from most health food stores. The question is, how many supplements do you need and how often should you be taking them? If you have a good dietary intake composed of organic fruits and vegetables, organic eggs and meat, and low glycemic carbohydrates, you may

never have to take any of these extra nutrients. In choosing these supplements, you should be careful not to “overdo” this whole thing and to mainly concentrate on your dietary intake for the best health regimen. Additionally, as has been stated many times in these articles, caloric restriction with a well-rounded balanced highly nutrient diet is the only thing that has ever been proven as an anti-aging pathway.