MONROE STREET MEDICAL CLINIC
TRADITIONAL AND NATURAL HEALTH CARE

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Vitamin E

If you are on anti-coagulant therapy, do not take without your doctor's advice. In my opinion, up to 800 units is safe even with anticoagulants, but you need to be sure that your doctor agrees.

What is it?
Vitamin E is an oily substance found in soybeans, nuts, and other foods. It is responsible for normal childbirth, for a healthy immune system, and for prolonging our lives by scavenging free radicals. Vitamin E is also known as *tocopherol*.

Forms of vitamin E
Natural vitamin E is a mixture of different forms called alpha, delta, gamma and so on. The alpha is the most potent, so you are used to vitamin E that is labeled d-alpha-tocopherol. Evidence now indicates to me that a mixture of the naturally occurring forms of vitamin E is best. If we supplement with only the alpha-tocopherol, we may crowd out the necessary delta- or gamma-tocopherols. There are supplements labeled and sold as **mixed tocopherols**. Most have very little delta- and gamma-tocopherol, these being very expensive. We look for a vitamin E with large amounts of alpha, delta, and gamma-tocopherol. Such a supplement is available at relatively economical prices.

Which form of vitamin E is best?
dl-tocopherol- is the synthetic form of vitamin E. It may be made from petroleum or from turpentine. The tocopherol in people is always the natural d-tocopherol.

Tocopherol acetate is vitamin E with an acetate molecule attached. Acetate is present in all animals. You are familiar with it as the acetic acid as in vinegar. Why add acetate to vitamin E? Vitamin E is a free radical scavenger. Free radicals exist whenever oxygen is in contact with organic substances. The vitamin E in the capsule will, if able, react with the oxygen in the air in the bottle. It will not be as effective once it enters your system. By attaching an acetate molecule to the vitamin E, it is prevented from reacting in the capsule. Once you ingest the capsule, the acetate is removed, used by your system for energy, and the full value of the vitamin E is available to you.

Tocopherol succinate is a form of vitamin E useful for those who would rather take a tablet than a capsule. When two molecules of acetate are combined you get a four-carbon molecule called

succinate. This molecule also can combine with vitamin E to protect it from premature anti-oxidant activity. The result is not an oil but a solid.

Why take vitamin E?

Free radicals are produced by every activity that we undertake. If not neutralized, they lead to aging and diseases such as cancer and heart disease. Vitamin E is one of several systems available to the body for protection against free-radical damage. Numerous studies, even in the *New England Journal of Medicine*, have shown that people with higher daily intakes of vitamin E have a reduced risk of heart disease and stroke.

Can I get vitamin E from my diet?
Nuts are particularly rich in vitamin E. One thousand almonds a day will give you 400 units vitamin E.

Why these brands?
Some years ago a prominent nutritional researcher bought ten brands of vitamin E and had each analyzed. Many contained less than the amount stated on the label. One contained no vitamin E at all. The Thorne and Carlson companies produce an honest vitamin E.

Self-care with vitamin E
The *Archives of Ophthalmology* (1988; 106:337) reported that those who used two of the three anti-oxidant vitamins (either vitamin A, C, or E) had one-fifth the risk of cataract compared to control subjects.

The *Journal of the American Geriatrics Society* (1978;26:328) reports on a group of people with osteoarthritis who took 600 units of vitamin E daily. Half of them had a significant decrease in their pain. Another study showed that vitamin E strengthened the cartilage in the joint.

The *American Journal of Clinical Nutrition* (1990; 52:557) reported increased immune responsiveness in 32 elderly people who used vitamin E for one month.

The *Archives of Otolaryngology* (1989; 115:484) states that vitamin E can protect against oral cancer.

The *Journal of the American College of Nutrition* (1983;2:115) states that 75 women with premenstrual syndrome noted improvement.

Who should take vitamin E? And how much?

between the ages of 20 and 50	400 units per day
over the age of fifty	800 units
children	70 to 100 units

The *Journal of the American College of Nutrition* reported in 1992(11:441) that many children in the United States are low in vitamin E. You can take your daily vitamin E all at in one dose. You need to be able to absorb fats to absorb vitamin E.

Safety of vitamin E
"Observational experience over many years and limited studies have indicated no convincing evidence of toxicity." from Modern Nutrition, edited by Maurice Shils MD of Cornell University. However, check with your doctor if you are on anticoagulant medication or have eye disease. Vitamin E is not for premature babies.

Medical use of vitamin E
Vitamin E should not be used to treat medical conditions without the advice of your physician. However, you should know that research has shown benefits from vitamin E for many medical conditions, including seizures in children, acne, heart attack, habitual miscarriage, pain in the legs with walking, various neurologic illness, diabetes, and to lessen side-effects of cancer therapy. A study published in *Burns Including Thermal Injury* (1988; 14:388) found that vitamin E by mouth increased immunity in people with severe burns, when compared to controls whose immunity decreased.

If vitamin E doesn't appear to help your problem, you may not be absorbing it. Take pancreatic enzymes (equivalent to 20,000 lipase units) with each dose to enhance absorption.