Blood Clotting

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Preventive Medicine

Prevention: Angelica, anise, fenugreek, garlic, ginger, ginkgo, ginseng, meadowsweet, motherwort, myrrh, and turmeric.

Overeating causes insulin levels to go up. Insulin interferes with the mechanism which keeps fibrinogen levels low. To prevent intravascular clotting, do not overeat (Ref. *JOURNAL OF INTERNAL MEDICINE* 227:273-278, 1990; K. Landin).

Causes of Accelerated Blood Clotting

In a study done at the University of Georgia at Athens rats fed a diet high in milk protein were found to have an acceleration of the rate at which they made blood clots. The researchers concluded that the diet high in milk proteins caused sensitizing of the metabolic factors that might initiate clotting inside blood vessels (Ref. *Journal of Nutrition* 123 (6): 1010-1016; 1993).

Some study on the effect of solar activity on the blood system showed that blood coagulation and anti-coagulation systems were affected by both the 11 year solar cycle and the periodic changes in solar activity. We have long believed that failure to have exposure to sunlight causes body systems to be less than optimal in their functioning. It appears from research that the effect of sunlight on the blood coagulation system is generally favorable. Persons who are at risk of intravascular clotting should be taught that failure to have exposure to sunlight may increase the likelihood of intravascular clots (Ref. *Lab Delo* (2):3-6; 1983).

Eating foods high in sugar increases the content of serotonin in platelets. It is known that platelets with increased quantities of serotonin are more likely to have stickiness. Therefore, it can be concluded that the use of large quantities of sugar in the diet would increase platelet stickiness and therefore increase the likelihood of having intravascular clotting (Ref. *Diabetes* 40 (suppl. 1):588A, May 1991).

The use of all kinds of saturated fats in experimental studies on animals have shown that these kinds of fats increase both venous and arterial blood clots (Ref. *Haemostasis* 2:53-72; 1973-74 and *Haemostasis* 2:21-52; 1973-74). Several studies have shown that as stress levels go up in a person the likelihood of increased platelet stickiness and platelet aggregation also goes up. The offending factor appears to be adrenalin (Ref. *Progress in Clinical and Biological Research* 67:361; 1981).

Factors Known to Reduce Blood Clots

The first thing that should be considered in reducing the likelihood of getting a blood clot is that of the diet being low in free fats. Free fats include margarine, butter, mayonnaise, fried foods, cooking fats, salad oils, and all nut butters. Repeatedly studies have indicated that the more free fats one takes, the greater the likelihood that one will have an increased risk of blood clotting.

Hot on the heels of the idea that free fats in the diet cause clots is the fact that failure to exercise will also increase one's risk of getting a blood clot inside one's blood vessels, and that exercise will indeed reduce blood clotting risks. Studies have been so numerous that even the associated press has picked up articles from the medical literature and published them—such as one published entitled "Exercise Reduces Blood Clot Risk." This study tells about 13 men ages 60 to 62 who exercised four to five times a week for six months and showed a 39 percent increase in the ability to dissolve blood clots which had already formed. This study was published in a very prestigious medical journal called *Circulation*. One of the authors was Dr. Wayne Chandler, a University of Washington scientist. The exercise program consisted of walking, jogging, and cycling for 45 minutes five times a week. The activity of clot dissolving enzymes increased 39 percent after the older men performed six months of this kind of exercise.

An interesting finding in the study was that clot dissolving ability is lowest in the early morning and highest in the evening. It is known that more heart attacks occur in the morning than any other time of day.

Therefore, the most favorable time to exercise seems to be early in the morning. When exercise is consistent, there is good evidence that there is round-the-clock protection from blood clotting inside the veins (Ref. *Columbus Ledger Inquirer*, May 9, 1991; C-3).

Another dietary factor which should not be overlooked is that of antioxidants. They slow blood clotting by the effect they have on platelets. Antioxidants are found principally in fruits, vegetables, whole grains, nuts, and seeds. Antioxidants include beta carotene, vitamins C and E, and selenium. All of these are high in this group of foods (Ref. *Lancet* 342:1007; 1993).

Another dietary factor is the principle called ajoene, which is produced when garlic cloves are chopped or crushed and heated, releasing a variety of sulfur containing compounds. Alliin, acted on by the enzyme alliinase, becomes allicin. Ajoene is released from allicin when crushed or chopped garlic is heated. Ajoene has anti-platelet stickiness properties and inhibits platelet aggregation. Ajoene also inhibits the formation of thromboxane A2 which can encourage clotting in certain circumstances (Ref. *Prostaglandins, Leukotrienes, and Essential Fatty Acids* 49(2):587-95; August 1993).

Platelet aggregation and stickiness has also been found to be decreased by the use of peanuts. The peanuts should be quite fresh, however, as two and three year old peanuts can become very rancid and cause actual damage to the blood vessels (Ref. *Revista Clinica Española* 165(2) 85-89; April 30, 1982).

The Use of Anticoagulant Medications

While anticoagulants have been used for many decades in the treatment of blood clots and to prevent blood clots, all is not entirely well with the use of anticoagulants. There are some experts in the field of heart attacks, strokes, and arteriosclerosis who feel that anticoagulants may actually increase the risk of strokes in some patients. While anticoagulant therapy may be helpful in certain types of plaques inside of arteries, reducing the likelihood that a fibrin thrombus would occur on the outside of a plaque, the blood clot that forms on other types of plaque is caused by hemorrhage within the plaque itself. The use of anticoagulants would increase the likelihood that a hemorrhage would occur within the plaque. Therefore, in a sizeable percentage of people using anticoagulants, it could be expected that their cases could be worsened by the use of anticoagulants (Ref. *Medical World News*, p. 85, April 8, 1985).

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