

## What you can do for your heart and cardiovascular system (excluding medications and surgery)

There really is a lot that we all can all do to promote and maintain the health of our heart and cardiovascular system that does not involve seeing our doctor or taking prescription medications. To be sure, if ones Blood Pressure is elevated this must be reduced to as low as possible (not just to a magic number like 130/85) and if ones blood lipids are markedly elevated this too must be lowered. Sometimes medications are required. However, regular check-ups with a physician should always be included.

What you are about to read are recommendations for a healthier heart that have gained medical mainstream acceptance (which means that there is now scientific evidence for their utility). These recommendations will either prolong the time before one needs potent medications or may reduce the quantity (dosage) of medication needed to keep ones "risk" of a cardiovascular event at as low a position as possible.

Who should take these recommendations very seriously? Those who have the most to gain are persons who::

- have a strong family history of heart disease
- are overweight
- have an elevated blood sugar or abnormal glucose tolerance
- have had a heart attack
- have high blood fats (lipids such as cholesterol and triglycerides)

The categories of "preventative remedies" fall into three main groups which are pills and tablets obtainable over the counter, dietary hints, and lifestyle hints.

### Tablet and capsule Remedies:

1. **Aspirin:** Yes, this is still on top of the list but what many forget is that the dose need not be large. In fact, a pediatric or child's aspirin that is 80 mg (milligrams) is all that it takes. This dose will reduce your risk of a heart attack by 30 - 50%. Aspirin works by reducing the "clotability" of circulating blood in the face of factors promoting clot formation. Another advantage of this "small" dose is that it is less harsh on a sensitive stomach. If one must take an "enteric coated" aspirin (which is 300 mg) take only one per week.
2. **Selenium:** One of a group of chemicals known as "antioxidants" which, among other things, reduce the tendency of the clotting elements of blood to form clots but by a different mechanism than aspirin. These agents (antioxidants) also help balance the ratio between the good and bad cholesterol. The dose is 100 mcg (micrograms) per day and you are cautioned from jumping even to 200 mcg.
3. **Vitamin E:** Whereas the mechanism is less than clear, this agent is an antioxidant with the additional benefit of being a "free radical" scavenger. In other words, they protect damaged cells from further damage by free radicals by attaching themselves to free radicals taking them out of harms way. The dosage is 200 to 400 IU (International Units) a day. This is 1 or 2 gelcaps a day and well worth it.

4. **Vitamin Supplements:** It seems that those who regularly take multivitamins reduce their risk of heart disease by almost 24%. Whereas the choices are many, one should be sure that yours contain the following:
  - **Folic acid 400 mcg**
  - **Ascorbic acid (Vitamin C) 500 mg** minimum
  - **Pyridoxine (vitamin B6) 50 mg** - higher not recommended
5. **Garlic:** This is both a dietary supplement and available as a capsule. The dose is 300 mg per day which translates to one clove. The advantage of the capsules is that the smell is absent. Again, the mechanisms are not crystal clear but some factor in garlic reduces the clotability of blood, decreases arterial and arteriolar wall damage from fatty deposits, and seems to reduce the accumulation of cholesterol in blood vessels

**Dietary hint and suggestions:** (NOT listed in the order of importance)

1. **Soy protein:** Use soy protein whenever possible. Soymilk (e.g. "Silk") is very palatable and known to reduce blood cholesterol. Also, unrelated to the cardiovascular system, much better for the asthmatic and chronic bronchitis sufferers as soy protein induces far less mucous than does casein.
2. **Flaxseed:** this is one of the most potent sources of "omega-3" fatty acids there is. Use of flaxseed in your diet on a regular basis has been shown to reduce the development of heart disease by 46%. The factors in flaxseed act to reduce clot formation keeping damaged arteries open longer. The suggested amount is 2 tablespoons a day (put on cereal or a salad).
3. **Fish:** This is another good source of "omega-3" fatty acids. It is suggested that having one fish meal a week can reduce your risk of death from an unexpected heart attack by 52%.
4. **Green Tea:** Contains several potent antioxidants that reduce ones cholesterol and may even lower ones Blood Pressure. Three bags in 20 ounces of water per day is recommended.
5. **Orange and Grape Juice:** Orange juice contains vitamin C and folic acid that lowers one's homocysteine level. Homocysteine is a risk factor for heart attacks. Grape juice contains flavonoids and resveratrol which are both potent antioxidants which, as you now know, keep the blood running and not getting caught in a tangle of platelets and fibrin (a blood clot).
6. **Nuts:** Yes nuts have good oils. Eating 5 ounces (2/3 cup) of nuts a week reduces by 30% the onset of heart disease or a heart attack. As expected, not all nuts are equal with cashews and pecans apparently heading the list and peanuts near the bottom - as far as effectiveness is concerned.
7. **Non Butter / Non Margarine spreads:** Butter contains saturated animal fats and margarine contains trans fatty acids both of which are factors in fatty deposits in arteries and their subsequent blocking. The newer cholesterol lowering sterols in "Benacol" or "Control" will lower yours 7-14%.

8. **Wine and Spirits:** There is good evidence that 1 to 3 ounces of alcohol per day significantly lowers your risk of a heart attack. It has been known for years that a glass of brandy (etc.) dilates blood vessels and will improve ones exercise tolerance in cases of intermittent claudication. This is, of course, a double-edged sword as more is NOT better.
9. **Low fat intake:** Fat should be no more than 25% of your daily intake of calories if you are free from disease or have a normal risk family history. If, however, you have heart disease or have a strong family history of heart disease then it is strongly recommended that your fat intake be 15 - 20% as a maximum. Especially avoid the saturated animal fats and trans fats and go easy on "omega-6" fats such as in corn oil.
10. **Olive oil:** Some say that substituting olive oil for butter and margarine is very heart healthy and also easy. Others use it in salad and to replace vegetable oil for baking. Keep in mind that it is the cold processed extra virgin oil that retains most of the antioxidants.
11. **Fiber:** The more fiber you consume, the less likely you are to have a heart attack. The goal is 20g (grams) of fiber a day in the form of whole grain breads, high fiber cereals, whole wheat, wheat bran, and oat bran. It is not easy eating that which tastes like sawdust but if one uses a bit of imagination and adds bran to cooked items like bran muffins. It is helpful to know that many fruits and vegetables are good sources of natural fiber
12. **Fruits and vegetables:** You knew I would not forget these if only because our moms and grandmothers have told us this all our lives. Now there is good evidence that 5 to 7 servings of fresh fruits and vegetables a day are very heart healthy as they contain antioxidants as well as vitamins. The leading contenders are the cruciferous vegetables like brussel sprouts, broccoli, cabbage and kale. Others follow but are still helpful.

### **Lifestyle aids to longevity:**

1. **Healthy mind:** Anxiety and depression are both factors that increase ones risk of a heart attack. Certainly strong connections to family, friends, your community and your religious focus are natural ways to reduce both anxiety and depression.
2. **Control you temper:** Losing ones temper doubles ones risk of a heart attack within the next two hours. Find a way to defuse temper-causing situations. Self-control is essential and should be worked on as if your life depended on it - and it may.
3. **Meditation:** or "mindfulness" as it is sometimes called. Practice meditation in which you are able to focus awareness on the present moment in a relaxed mode. Obtaining this can greatly reduce ones stressors. Later when times of stress occur, they can be countered by simply closing your eyes and focusing on e.g. your breathing which you keep slow.

4. **Spirituality:** Studies have shown that those with regular spiritual practices who meet with a faith community (attending a church, synagogue or mosque etc) live longer, live better and are far less likely to have a heart attack than those without this activity. Basically, it is recommended that one sit down each day for 20 to 30 minutes and focus on some word or phrase that you associate with a force greater than yourself.
5. **Be Yourself:** A main cause of stress is trying to live in a way that is not consistent with who you are. One should frequently run a reality check on who we are and what we are doing to be sure that your life reflects who you are at the core and not whom you think you should be.
6. **Humor:** Yes, laughter is, and always has been, the best medicine. It is well known that the chemicals (autacoids) released when one is laughing and, in general, in a good mood are more than just “heart healthy”. This is not new and has been well described by Cousins “Anatomy of an Illness”. Humor also is great to relieve stress and anxiety.
7. **Exercise:** I suspect that you expected this at the head of the list from a physician. True, regular exercise reduces the risk of a heart attack by up to 50% - which is more than even the best cholesterol lowering drug can do. A point to keep in mind is that one does not have to run or do strenuous exercise for long periods of time. Try even brisk walking 15 to 20 minutes a day. The optimal amount would be 45 minutes 4 - 5 times a week. A very important point to remember is that the object is to increase the heart rate just to the best rate for ones age - and it is not your maximum rate.

The points above, taken in the aggregate, have the power to very significantly lower your risk of a heart attack or a serious cardiovascular event even if you have a strong family history of heart problems or if you have already survived your first attack. Keep in mind, also, that many of the points listed in the sections above have a general beneficial effect on ones health - not just on the heart.

This “prescription” for a healthy heart should be taken seriously in every aspect as each of these points is now backed up by credible scientific evidence - at least good enough so that us family doctors understand their importance to the health of our patients. None of us wants a family member or a friend or patient (and many are both) to have a cardiovascular event on our watch. This is why you are seeing physicians going beyond their medical and scientific training to help insure the health of their patients and not just prescribing a medication.

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