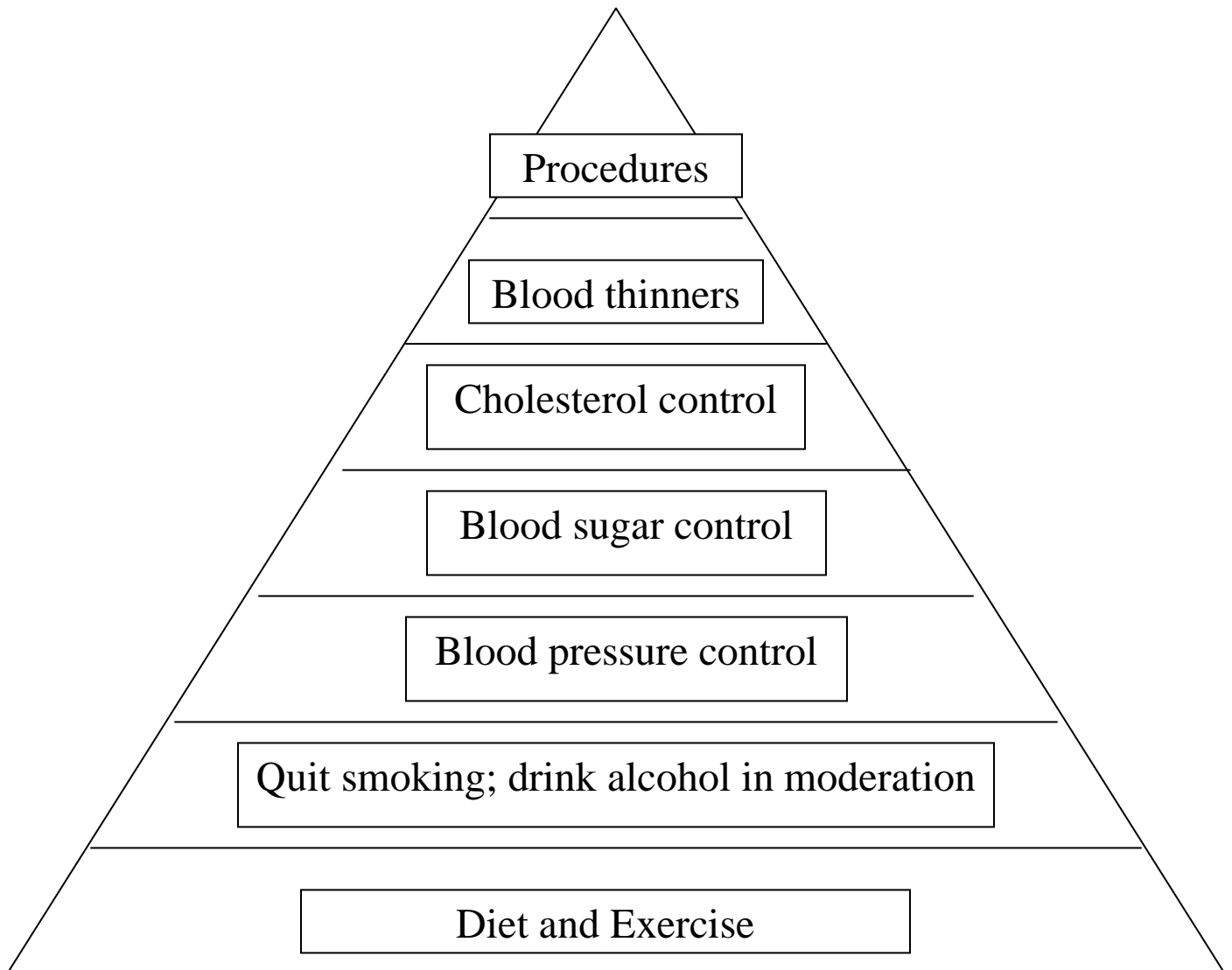


## **The Stroke Prevention Pyramid**

Stroke prevention can be thought of as a pyramid of health care options. The factors are ordered from bottom to top in terms of their impact on the general American population.



**Proven strategies that can minimize your risk of future stroke (and heart attack) include:**

- Follow a **healthy diet**. The best evidence is for the Mediterranean diet—a diet rich in fresh fruits and vegetables of many different colors, nuts, and whole grain breads. You should eat a minimum of animal fat (small portions of lean meat, skim milk and dairy) and trans fat (in many fried foods and baked goods). Some oils are actually good for your blood vessels. You should eat two servings of fatty deep sea fish like salmon a week (or take 2-3000 mgm coated omega 3 fish oil capsules a day). Instead of using butter, use a canola oil margarine or olive oil.
- **Lose weight**. Your body/mass index should be under 25. Your waist circumference should be under 40 inches. This is all about eating fewer calories. Consider asking your doctor to refer you to a dietician.
- **Exercise**. More is better. Try to walk at least 30 minutes every day; in the long run, aim for 60 minutes of moderately aerobic activity a day (like cutting the grass). This is as effective as taking separate pills for your blood pressure, blood cholesterol and blood sugar.
- **Stop smoking**—this will cut your risk of stroke of heart attack by 2/3 over the next 3 years.
- Long term **control of high blood pressure**. This is the most proven medical intervention for preventing stroke. Your risk of stroke doubles for every 15 points the top number (systolic) is over 115. Check your blood pressure often enough to know what it is. The top number should be at least under 140; if you are a diabetic, it should be under 130.
- **Watch your alcohol intake**. A little may actually be beneficial but this means a maximum of 10 drinks a week for men and 7 drinks a week for women.

- **Women should not take estrogen hormone replacement.** It measurably increases risk for stroke, heart attack and clots in the leg veins.
- If you are a diabetic, get **your blood sugars in the normal range** (<140) all the time (Hgb A<sub>1</sub>C<7.0).
- Know your fasting **blood cholesterol and triglyceride levels** and get them in the normal range. The total cholesterol should be under 200, the “bad” (LDL) cholesterol under 100 (under 80 is better) and the triglycerides under 150. Diet is the first step but drugs, especially the “statins” appear to be beneficial and can result in regression of carotid stenosis. Statins appear to also be useful in preventing stroke in people with evidence of inflammation in their blood vessels. A blood test (high sensitivity C-RP) can help detect these people.
- Take a blood thinner:
  - **Antiplatelet therapy.** Aspirin (81-325mgm/day) cuts the risk of stroke by about 25%. Enteric-coated aspirin is easier on the stomach. Plavix (clopidigrel) and Aggrenox (aspirin plus persantin) are other options. Some patients will have contraindications to these drugs.
  - **Anticoagulants.** Coumadin (warfarin) is used especially if you have a known source of clots in your heart (e.g. atrial fibrillation or heart valve problems). Coumadin is roughly as effective as aspirin in preventing clots that form in arteries like the carotids but aspirin is generally preferred because it is easier to use
- Some patients are found to have specific problems such as a partially blocked artery in the neck or head. Surgery or stenting might be considered. These are special cases; even they should not forget the rest of the factors in the pyramid.

- Know the common symptoms of stroke: WALK (is their balance off?) TALK (Is their speech slurred or face droopy?) REACH (Is one side weak or numb?) SEE (is their vision all or partially lost?) FEEL (Is their headache severe?)

**IF YOU DEVELOP ANY SYMPTOMS OF A  
STROKE OR TIA  
CALL 911.  
STROKE IS A MEDICAL EMERGENCY!**

- Treatment in the first few hours can make a big difference to long-term disability.
- If this happens, you are now “symptomatic” and this may change your doctor’s advice on how to manage you.

For more information on stroke and its prevention, try the following Web Sites:

American Academy of Neurology

<http://www.aan.com>

American Heart Association/American Stroke Association

<http://www.StrokeAssociation.org> (1-888-4-STROKE)

Internet Stroke Center @ Washington University

[http:// www.strokecenter.org/](http://www.strokecenter.org/)

National Stroke Association

<http://www.stroke.org>

The AAN & ASA along with the American College of Emergency Physicians have recently started a joint website for stroke education: <http://www.giveme5forstroke.com>

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