Niacin: Is it safe? Does it work?

Many of you know that I have been enthusiastic about using niacin to help prevent heart disease. However, as we go to press with this newsletter, a new study has been published.

AIM-HIGH is a large prospective randomized, placebo-controlled study comparing simvastatin (a cholesterol-lowering drug) with a combination of simvastatin and niacin. The AIM-HIGH study showed a lack of any beneficial effect, as well as the possibility of increased stroke in those taking niacin. While I think it is reasonable to continue using niacin pending further clarification, there will be a lot of uncertainty until more is learned.

Niacin is a B vitamin which, when used in very high doses, acts like a drug to improve blood cholesterol levels. Simply put, niacin lowers LDL (“bad”) cholesterol and triglycerides while raising HDL (“good”) cholesterol. Using high-dose niacin can have irritating side effects (flushing and itching), but forty years of data showing reductions in heart attacks and death have kept me recommending niacin, along with other heart medications, for patients at high risk of heart disease.

So, on one hand we have about 11 older and smaller, but well-done studies for niacin which show a benefit for using niacin;¹ and on the other hand, there is one newer, larger, well-done study (AIM-HIGH) showing no benefit, and even possible harm. There are many important differences between the studies which may explain the discrepancy in outcomes, including the possible confounding of data due to patient non-compliance and the use of a third drug (ezetimibe) which has not been studied with niacin prior to the AIM-HIGH clinical trial.

My best guess is that the older data will prevail and niacin will continue to be used. We’ll keep you posted as more information becomes available. If you are taking niacin, and choose to stop it based on the recent data, there are many ways to gain most of the niacin-related benefits for cholesterol and triglycerides.

¹ Bruckert, E. et al. Atherosclerosis 2010;210:353-61

Steps for raising HDL “good” cholesterol and lowering triglycerides

1. Make a habit of daily exercise.
2. Eat healthy fats.
3. Use fish oil.
4. Avoid trans fats (like hydrogenated oils).
5. Eat more whole foods, less refined grains and sugar.
7. Drink a small amount of alcohol. Small.

The exercise habit

Daily exercise raises HDL up to 10-20 percent and lowers your risk of future heart “events” by 30-60 percent – and the same benefit may apply to triglyceride levels. The goal should be 30-60 minutes of brisk walking daily, or at least 20 minutes of vigorous exercise. Unless your physician instructs otherwise, I suggest that you exercise as vigorously as you can while still being able to talk. If you can still talk easily, you probably aren’t overdoing exercise. A useful rule of thumb is that you should get a bit short of breath and sweaty on a daily basis.

If the above goal is too ambitious for your situation, any exercise is better than none, so 5 minutes is a fine start. However, for the purposes of raising HDL, a longer duration or greater intensity of exercise is better. As a good alternative to formal exercise, use a pedometer and make sure you accumulate 10,000 steps daily. Check with your physician for advice concerning your particular situation.

Good fats for a healthy HDL

Eating more healthy fat is a good step towards raising HDL and lowering triglycerides. A person with low HDL should be on a good fat diet, not a low-fat diet! Low-fat diets usually increase triglycerides and lower HDL. Some of the best fats are extra-virgin olive oil, avocados, raw nuts, and sources of omega-3 fats like salmon, sardines, and tuna, shellfish, flaxseeds, and even green leafy vegetables. Moderate amounts of eggs, cheese, butter, and meats also help raise HDL.
Fish oil supplements
Fish oil has only a small effect in raising HDL, but it can substantially lower triglycerides – and improve health outcomes generally. Fish oil contains many types of fat, but what we are most interested in when choosing fish oil are the two fatty acids called EPA and DHA. (For more about the health benefits of fish oil, see page 45 and 52 of Good Food, Great Medicine.)

Avoid trans fats
Trans fats can lower HDL and raise triglycerides. They are found in variable amounts in hydrogenated and partially hydrogenated oils – which means they are present in most margarine spreads, many packaged foods and commercially prepared foods in general. DON’T BE FOOLED BY LABELS CLAIMING ZERO TRANS FATS! Legally, a food can be labeled as having “zero trans fats” even when there is what I consider a significant amount of trans fats per serving. So, I suggest you read ingredient lists carefully and avoid hydrogenated oils completely. Most products that contain hydrogenated oils are probably going to have other bad boys like sugar (or sugar substitutes) and white flour. (Remember, “wheat flour” is another name for white flour.)

Eat whole (not refined) foods
This means beans, whole grains, vegetables, and whole fruit. The humble bean, by the way, is perhaps the cheapest and safest lipid-lowering drug on the market. Beans are easy to cook (you can even open a can) and delicious as dip, soup, salad, or even sprinkled over ice cream. (Just checking to see who is still reading.) Figure out ways to eat more vegetables and whole fruit, cooked or raw.

Avoiding sugar and refined carbohydrates and eating grains that have been as minimally processed as possible will also help raise HDL and lower triglycerides. An unprocessed whole grain is an exquisitely practical coalition of parts, each with a specific function and benefit which is optimal in its intact form: the bigger the particles of grain, and the more you have to chew, the greater the benefit. This is why even 100 percent whole grain bread made with finely-ground flour is not ideal.

Some more common examples of refined grain products and sugars are ready-to-eat breakfast cereals, energy bars, crackers, white rice, sweets and sweet drinks, and anything made with white flour.

Watch your waist
Maintain a healthy waistline and weight. If you happen to have a bit of a mid-line crisis, losing weight around the middle will help raise your HDL 5-10 percent and lower your triglycerides. The best way to calculate your waistline risk is with a tape measure. (For more information, see Big waists can lead to bad hearts on page 56 of our book. Tips on weight loss are on page 30.)

Drink a small amount of alcohol
A small amount of alcohol may help raise HDL up to 5 – 10 percent. If you do not have medical or philosophical reasons to avoid alcohol, consider drinking up to one drink per day. If you already drink, stop a moment to consider what one drink actually is: a “drink” is 4-5 ounces (about ½ cup) of wine, 12 ounces of beer, and 1½ ounces of liquor. If you find it difficult to stop at one drink, you should probably skip it altogether. The downside of more alcohol outweighs any health benefits. Larger amounts of alcohol raise triglycerides.

For some, any alcohol at all is too much. For anyone, drinking more than the recommended amount of alcohol is dangerous, causing more accidents, strokes, dementia, heart disease, liver failure, high blood pressure, weight gain, depression, and divorce.

Upcoming Speaking Events

7/8-7/10/2011 – Cardiology Update for the Primary Care Provider: Miles Hassell MD: Are there any nutritional supplements that are beneficial? The Anti-Inflammatory and Anti-Atherogenic Diet. Blaine, Washington. Conference participants only - for more details see: http://www.providence.org/everett/medical_staff/schedule.htm


“Prove all things; hold fast that which is good.”
1 Thess. 5:21(KJV)