Follow Your Heart

Sean Strub's high blood fats could lead to ticker trouble.

January 1, 2000 By Richard Elion, MD

This month, Richard Elion, MD, a Washington, DC, clinician, researcher and licensed acupuncturist with a large HIV practice, reviews the latest blood-fat measurements of *POZ* founder Sean Strub.

Although Sean's overall test results are encouraging—with CD4s at 483, an undetectable viral load and most of his blood-chemistry values normal (referred to in his lab report as reference range)—his blood-fat abnormalities are a concern. His cholesterol is substantially above normal at 278 mg/dl (milligrams per decaliter); his LDL cholesterol (low-density lipoprotein, the bad kind that promotes heart disease, shown as ldl chol., calculated) is high at 189; and his cholesterol/HDL ratio (shown as chol/hdl ratio) is high at 6.78. In addition, his triglycerides are high at 239 mg/dl.

Already seen in many HIVers in the pre-protease era, such blood-fat abnormalities are even more common in those on HAART, and can be a significant risk factor for heart disease. Although standard medical advice says to begin by lowering dietary fat intake, in my experience that is not much help when HAART meds are the main culprit. Of course, if someone is on a French fry/milkshake/cheeseburger meal plan, reducing fat intake might help. Also useful are boosting dietary sources of soluble fiber such as fruits, vegetables and whole grains (especially oats), and using fiber supplements such as psyllium seed (Metamucil) and citrus fiber (Citrucel)—all of which can block cholesterol absorption. It is also very important to avoid the artery-damaging partially hydrogenated fats found in most margarines, vegetable shortenings, commercial baked goods and snack foods. (Study your labels.)

If fasting cholesterol repeatedly measures above 250, and as in Sean's case, the cholesterol/HDL ratio is unfavorable (normal values vary with age and sex), then cholesterol-lowering agents are usually recommended. There are three types to consider:

1. Statin drugs (such as Lipitor, Pravachol or Mevachor) help prevent the conversion of fats into cholesterol. How-ever, some of those drugs use the same liver enzyme pathway used by protease inhibitors. One study showed that ritonavir (Norvir) blood levels were lowered in those on Lipitor, so my preference would be Pravachol, which does not have that effect. It's also necessary to consider the possibility of drug interactions with alternative remedies such as the herbal compound Cholestin, which works similarly to the statins and may cause similar interaction problems.

2. Fibrate drugs (such as Lopid) bind cholesterol and prevent its absorption, while also lowering elevated triglycerides. This might be a possibility for Sean, but side effects can include bloating, gas, gastrointestinal upset and liver toxicity.

3. The B vitamin niacin is my preference. It can lower overall cholesterol, LDL cholesterol and triglycerides. Generally, I see good results when people take 1,000 milligrams (mg) daily. A common side effect of niacin is flushing, redness, warmth and, in some people, painful stinging and itching for a half hour or more after it's taken. But a sustained release, no-flush form is much less likely to cause these problems, especially if combined with a baby aspirin taken a half hour before the niacin. Taking it in the middle of a meal will also help. The brand I usually recommend is Niaspan, 500 mg per tablet (which, for those experiencing flushing, can be cut in half, although such a reduced dose may not be as effective), taken with breakfast and dinner. If this dose doesn't normalize blood fats, it can be increased (if tolerable) until good results are seen, but liver-function tests should be run to watch for liver toxicity, a possibility with higher doses.

Another possibly valuable tool to help lower triglycerides is the amino acid L-carnitine (Carnitor). Pre-HAART studies found that 6,000-mg daily doses can normalize HIV-elevated triglycerides. (Unfortunately, the dose usually covered by insurance for elevated blood-fats is only 3,000 mg daily.)

Even when blood fats can't be completely normalized, you can lower your heart-disease risk by combining regular exercise and stress-reduction therapies with nutrient supplementation. Magnesium, deficient in many HIVers, can help prevent arterial damage and protect the heart when taken in doses of 500 to 1000 mg daily. Also important are antioxidants (including vitamins E and C, bioflavonoids, selenium, coenzyme Q-10 and alpha-lipoic acid) and B vitamins—all obtainable in some brands of high-potency multivitamins.

These nutrients help prevent the chemical changes—in blood vessels and blood fats alike—needed to cause arterial damage. So even if you can't bring down your cholesterol to an ideal level, you can help ensure that this fat goes out the other end rather than being deposited in the blood vessels.
