

ratios tend to be low and therefore predictive of low coronary risk, he says.

Nonetheless, contends NHLBI's Rifkind, "we've still got insufficient evidence" to warrant a national HDL screening campaign. "There's no doubt that HDL is an independent and powerful risk factor for heart disease. And whatever else we learn about HDL, that will never disappear." But several gaps exist in scientists' understanding of HDL, he says, and lipid researchers must fill those gaps — using animal and human studies — before they can say low HDL levels play a direct role in promoting coronary disease.

Indeed, Rifkind notes, while a whole spectrum of evidence indicted high LDLs in coronary disease as early as the late 1960s, "it was only in 1985 that we got the green light for a national program to [reduce] LDLs. Many of us think the same [cautious development of a firm scientific database] should be required of HDLs" before physicians begin routine screening and risk-reduction treatments.

Moreover, he asks, "if we find that HDL is low, what do we do?" Physicians have plenty of data to justify drug treatment for patients with elevated LDLs or total cholesterol, he says, but they lack sufficient data to justify similar efforts to raise low HDLs. And though lifestyle changes — reducing obesity, quitting smoking, increasing exercise — can raise HDLs, "they don't do it consistently," Rifkind says. Because "HDL is not nearly as malleable to change as is LDL," adds Medlantic's Brown, many patients who make dramatic lifestyle changes grow frustrated when these don't yield the HDL increases they've been led to expect.

Miller of Hopkins says that observation explains why drug therapy may be appropriate in these patients. However, he notes, while the Helsinki study showed drugs could elevate HDLs in people whose total cholesterol levels were quite high, "we have no evidence yet that drugs will prove similarly effective in raising low HDLs in persons with normal total cholesterol levels."

Miller is about to begin a pilot study investigating just that — in people whose only lipid abnormality is low HDL cholesterol. If drug therapy works, he will seek NHLBI support for a multicenter study — much like the Coronary Primary Prevention Trial — to investigate whether raising HDLs in people with low levels reduces their heart disease risk.

One of the biggest objections to routine HDL screening today, Rifkind says, stems from the concern that it might complicate the physician's already complex task of evaluating lipid profiles. In fact, he says, the task force charged with drawing up the NCEP recommendations "felt that while we might gain something scientifically [by recommending HDL analysis], we also worried we might lose a great deal with respect to physician com-

pliance." So, he says, the guideline writers chose to "uncomplicate the message."

Castelli contends doctors are already confused — because NCEP's current guidelines make things unduly complicated. "If physicians can't carry all the numbers [needed to evaluate a patient's lipid profile] around in their head, they aren't going to use them," he says.

NCEP's guidelines ask physicians to evaluate total cholesterol (determining whether it falls under 200, between 200 and 239, or over 300 mg/dl) and perhaps LDL cholesterol (is it under 130 with no risk factors, between 130 and 160 with risk factors, or over 160 mg/dl?), HDL when it's known (is it under 35?) and triglycerides (are they over 240? — or, among the conservative contingent, over 150?).

Castelli asks how anyone can consider this battery of figures less complicated than remembering merely that a patient's total-to-HDL cholesterol ratio should be under 4.5, and the lower the better. If the physician has a head for numbers, Castelli says, he or she can always tack on a second screening criterion: total cholesterol concentrations under 150. "These people are not going to get a heart attack" regardless of their HDL, LDL or triglyceride values, he says.

Finally, Castelli argues, every patient has the responsibility of knowing his or her lipid levels. "One of the greatest myths in America today is that your

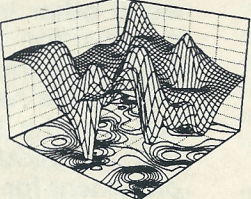
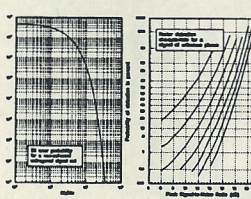
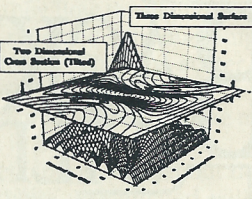
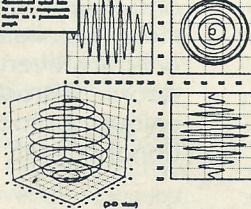
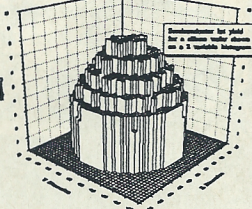
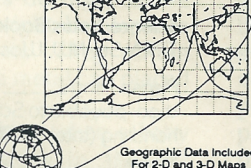
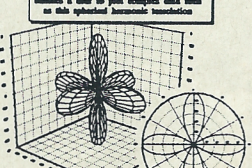
doctor knows what your [lipid] values are and is keeping a scorecard for you," he says. "Your doctor doesn't know your numbers." In fact, he says, patients can't safely count on their doctors to even know how to evaluate lipid risk factors.

He thinks patients should demand that their doctors perform the necessary tests to determine total-to-HDL cholesterol ratios. "And if more individuals do that, they are eventually going to help others, because they're going to educate their doctors," he says. "We found out that this is what happened when the blood pressure campaign got started [in 1972]." Patient requests for blood pressure measurements eventually hammered home to many physicians the importance of hypertension as a treatable risk factor in stroke, he says.

Before NCEP began, adds Gotto, "surveys indicated that the general public was more convinced cholesterol was important than were physicians." So NCEP directed its first campaign toward educating doctors about the value of measuring their patients' cholesterol and basing treatment on those findings. Now, according to Castelli, Miller, Gotto and others, it's time to gear up for the next campaign — one that aims to educate patients and doctors alike on the importance of HDL screening. □

Next: Insulin and Heart Disease

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