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PERSONAL HEALTH

New Thinking on How to Protect the Heart

By [JANE E. BRODY](#)

If [last week's column](#) convinced you that surgery may not be the best way to avoid a [heart attack](#) or sudden cardiac death, the next step is finding out what can work as well or better to protect your heart.

Many measures are probably familiar: not [smoking](#), controlling [cholesterol](#) and [blood pressure](#), exercising regularly and staying at a healthy weight. But some newer suggestions may surprise you.

It is not that the old advice, like eating a low-fat [diet](#) or exercising vigorously, was bad advice; it was based on the best available evidence of the time and can still be very helpful. But as researchers unravel the biochemical reasons for most heart attacks, the advice for avoiding them is changing.

And, you'll be happy to know, the new suggestions for both diet and exercise are less rigid. The food is tasty, easy to prepare and relatively inexpensive, and you don't have to sweat for an hour a day to reap the benefits of exercise.

The well-established risk factors for heart disease remain intact: high cholesterol, [high blood pressure](#), smoking, [diabetes](#), abdominal [obesity](#) and sedentary living. But behind them a relatively new factor has emerged that may be even more important as a cause of heart attacks than, say, high blood levels of artery-damaging cholesterol.

That factor is [C-reactive protein](#), or CRP, a blood-borne marker of inflammation that, along with coagulation factors, is now increasingly recognized as the driving force behind clots that block blood flow to the heart. Yet patients are rarely tested for CRP, even if they already have heart problems.

Even in people with normal cholesterol, if CRP is elevated, the risk of heart attack is too, said Dr. Michael Ozner, medical director of the Cardiovascular Prevention Institute of South Florida. He thinks that when people have their cholesterol checked, they should also be tested for high-sensitivity CRP.

Diet Revisited

The new dietary advice is actually based on a rather old finding that predates the mantra to eat a low-fat diet. In the Seven Countries Study started in 1958 and first published in 1970, Dr. Ancel Keys of the [University of Minnesota](#) and co-authors found that heart disease was rare in the Mediterranean and Asian regions where vegetables, grains, fruits, beans and fish were the dietary mainstays. But in countries like Finland and the United States where plates were typically filled with red meat, cheese and other foods rich in saturated fats, heart disease and cardiac deaths were epidemic.

The finding resulted in the well-known advice to reduce [dietary fat](#) and especially saturated fats (those that are

firm at room temperature), and to replace these harmful fats with unsaturated ones like vegetable oils. What was missed at the time and has now become increasingly apparent is that the heart-healthy Mediterranean diet is not really low in fat, but its main sources of fat — olive oil and oily fish as well as nuts, seeds and certain vegetables — help to prevent heart disease by improving cholesterol ratios and reducing inflammation.

Virtues Confirmed

It was not until 1999 that the value of a traditional Mediterranean diet was confirmed, when the Lyon Diet Heart Study compared the effects of a Mediterranean-style diet with one that the [American Heart Association](#) recommended for patients who had survived a first heart attack.

The study found that within four years, the Mediterranean approach reduced the rates of heart disease recurrence and cardiac death by 50 to 70 percent when compared with the heart association diet.

Several subsequent studies have confirmed the virtues of the Mediterranean approach. For example, a study among more than 3,000 men and women in Greece, published in 2004 by Dr. Christina Chrysohoou of the University of Athens, found that adhering to a Mediterranean diet improved six markers of inflammation and coagulation, including CRP, [white blood cell count](#) and [fibrinogen](#).

The same year Kim T. B. Kooops, a nutritionist at Wageningen University in the Netherlands, and co-authors published a study showing that among men and women ages 70 to 90, those who followed a Mediterranean diet and other healthful practices, like not smoking, had a 50 percent lower rate of deaths from heart disease and all causes.

“The Mediterranean diet is one people can stick to,” said Dr. Ozner, author of “The Miami Mediterranean Diet” and “The Great American Heart Hoax” (BenBella, 2008). “The food is delicious, and the ingredients can be found in any grocery store.

“You should make most of the food yourself,” Dr. Ozner added. “When the diet is stripped of lots of processed foods, you ratchet down inflammation. Among my patients, the compliance rate — those who adopt the diet and stick with it — is greater than 90 percent.”

Among foods that help to reduce the inflammatory marker CRP are cold-water fish like salmon, tuna and mackerel; flax seed; walnuts; and canola oil and margarine based on canola oil. Fish oil capsules are also effective. Dr. Ozner recommends cooking with canola oil and using more expensive and aromatic olive oil for salads.

Other aspects of the Mediterranean diet — vegetables, fruits and red wine (or purple grape juice) — are helpful as well. Their antioxidant properties help prevent the formation of artery-damaging LDL cholesterol.

Other Steps

Several recent studies have linked periodontal disease to an increased risk of heart disease, most likely because gum disease causes low-grade chronic inflammation. So good dental hygiene, with regular periodontal cleanings, can help protect your heart as well as your teeth.

Reducing chronic [stress](#) is another important factor. The Interheart study, which examined the effects of stress in more than 27,000 people, found that stress more than doubled the risk of heart attacks.

Dr. Joel Okner, a cardiologist in Chicago, and Jeremy Clorfene, a cardiac psychologist, the authors of “The No Bull Book on Heart Disease” (Sterling, 2009), note that getting enough sleep improves the ability to manage stress.

Practicing the relaxation response once or twice a day by breathing deeply and rhythmically in a quiet place with eyes closed and muscles relaxed can help cool the hottest blood. Other techniques Dr. Ozner recommends include meditation, prayer, [yoga](#), self-hypnosis, laughter, taking a midday nap, getting a dog or cat, taking up a hobby and exercising regularly.

He noted that in a 1996 study, just 15 minutes of exercise five days a week decreased the risk of cardiac death by 46 percent.

Even very brief bouts of exercise can be helpful. A British study published in the current American Journal of Clinical Nutrition found that accumulating short bouts — just three minutes each — of brisk walking for a total of 30 minutes a day improved several measures of cardiac risk as effectively as one continuous 30-minute session.

This is the second of two columns on cardiac care. Last week: [The drawbacks to interventional cardiology.](#)

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