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ON THE
COVER**Enhancing Longevity Through the Miami Mediterranean Diet**

By Michael Ozner, MD, FACC, FAHA with Dale Kiefer



While most people relentlessly pursue diet after diet to lose weight, often with mixed results, there is one diet that not only helps you safely lose weight but can also dramatically reduce your risk of heart disease as well. In countless studies, a Mediterranean-style diet has been proven to lower inflammatory markers, reduce metabolic syndrome, eliminate many of the risk factors that contribute to cardiovascular disease, and lower one's exposure to cancer.¹⁻¹³ In short, this is a diet and a lifestyle that not only can make you look and feel great but can help you live a longer, healthier life at the same time.

In my clinical practice as a preventive cardiologist, I have seen the impressive results of my Miami Mediterranean Diet not only help people lose weight but actually save lives. Characterized by whole grains and legumes, lean protein, fresh fruits and vegetables, and plenty of heart-healthy olive oil, the Mediterranean diet has been clinically proven—again and again—to arrest the degenerative factors that lead to many of our most lethal diseases. The Miami Mediterranean Diet is about preventing cardiovascular disease by reducing inflammation and neutralizing free radicals that lead to heart disease, cancer, and numerous other diseases. Can we defeat cardiovascular disease and its manifestations (heart attack, stroke, peripheral vascular disease)? The answer is yes! And prevention—not intervention—is the key.

**THE MEDITERRANEAN DIET REVOLUTION**

As a preventive cardiologist, I have often taken a position that is the polar opposite of many of my colleagues. I firmly believe that we do far too much intervention in this country—invasive procedures like stents, balloon angioplasties, bypass surgeries—and not enough prevention. As doctors, if we seriously invested the time in teaching our patients how to prevent heart disease, we could actually see a significant drop in the amount of cardiovascular mortality in this country. And given that every 36 seconds, someone in America dies of an illness related to cardiovascular disease, there's clearly plenty of need for better prevention. In recent years, I've devoted nearly as much time to lecturing as I have to seeing patients. Traveling all over the world, I eagerly spread the word about the benefits of the Miami Mediterranean Diet. The reason is simple: cardiovascular disease prevention is a topic that is near and dear to my own heart.

WHAT YOU NEED TO KNOW: THE MIAMI MEDITERRANEAN DIET

- A Mediterranean-style diet—rich in whole grains, legumes, fruits, vegetables, lean protein, fish, and olive oil—has long been associated with good health and long life.
- A growing body of scientific evidence reveals that consuming a Mediterranean-style diet yields many health benefits, including cardiovascular disease prevention, weight management, improved blood sugar metabolism, reduced blood pressure, decreased inflammation, and cancer protection.
- Leading preventive cardiologist Michael Ozner, MD, has adapted this ancient diet for the modern world in his newly revised Miami Mediterranean Diet. The results have been remarkable—his patients have demonstrated improved blood lipids, decreased blood pressure, weight loss, and perhaps most importantly—a decreased requirement for invasive procedures such as angioplasty and stents.
- The Miami Mediterranean Diet provides a delicious and satisfying eating plan to help avert cardiovascular disease, improve health, and reach one's weight-management goals.

MY “EUREKA” MOMENT

I first became interested in this remarkably healthful diet about a quarter of a century ago. I remember I had just returned home, late one evening, after a full day of performing a half-dozen or so balloon angioplasties on my patients. Exhausted, I sat down to unwind with some reading material, and came across an article written by University of Minnesota scientist, Ansel Keys, PhD.^{14,15} It described the groundbreaking Seven Countries Study, which established that the dietary patterns of people living in the Mediterranean region were associated with better health and longer life. A middle-aged Greek man, for instance, was 90% less likely to have cardiovascular disease than a comparable man in the West.

That’s when a light bulb went off for me. I thought, “Wait a minute, this is crazy, we’re doing it all wrong!” I had just done one half-dozen interventional procedures, and here was information that could have prevented the problem with something as simple as diet and lifestyle.

I had always believed that vascular disease—atherosclerosis—was a metabolic disorder. And this suggested that it required a metabolic solution. So I sat down and typed up 20 to 30 pages describing the diet and lifestyle I wanted my patients to follow. It was a simple patient handout. And guess what? I found that it really worked. Ninety-five percent of my patients were losing weight, lowering their blood pressure, reducing their detrimental low-density lipoprotein (LDL), raising their beneficial high-density lipoprotein (HDL), and getting healthier.



Eventually, my intervention-oriented colleagues started asking, “Why aren’t you sending us more cases?” They wondered why I wasn’t sending patients to the cardiac catheterization lab anymore. The simple answer is that my patients were getting better—without invasive procedures like stents, angioplasties, or bypass surgeries. It was revolutionary!

I’ve come to believe that we’re marching down the wrong path in the United States. We have this “quick-fix” attitude. If a patient develops cardiovascular disease, our treatment is to put in a stent, or to do a triple-bypass operation. While emergency coronary intervention with stent placement and other forms of intervention is often appropriate and necessary in unstable coronary syndromes or for patients in the throes of a heart attack, intervention has never been shown to decrease the risk of a future heart attack or prolong life compared with lifestyle changes and medical therapy in stable patients with coronary artery disease. In fact there’s no evidence that putting in a stent or performing a surgical bypass prevents future heart attacks—none. But we keep on doing invasive interventions on stable patients. What we’re doing is wrong. It’s much better to put a patient on the Mediterranean diet and lifestyle and medical therapy (as needed) to successfully address the underlying metabolic derangements.

Originally I called my handout the “Cardiovascular Disease Prevention Diet and Lifestyle,” but soon word got out, and people all over the country were calling my office asking for my “Miami Mediterranean Diet.” I gladly sent copies, and the idea for a book was born. It was clear that the information contained in my handout was changing people’s lives. In order to provide as much guidance as possible, I decided to write the Miami Mediterranean Diet in order to provide a working blueprint for anyone who wants to lose weight and reduce their exposure to coronary heart disease, hypertension, diabetes, Alzheimer’s disease, and cancer. As I watched people change their eating habits and increase their health, I knew that it was time to update the book and have just released the 2008 expanded edition of the Miami Mediterranean Diet. The benefits of this eating plan go beyond good health—in my experience, if you are healthy on the inside, you are going to look fantastic on the outside, too!

CANCER PREVENTION WITH THE MEDITERRANEAN DIET

The heart-healthy benefits of the Mediterranean diet also have enormous impact in reducing mortality from cancer.^{3,48} A large-scale pan-European study involving over 22,000 adults found that this model for healthy eating significantly reduced cancer mortality by 24% after nearly two years.⁴⁸ It also reported that no single food component was strongly associated with reducing the risk of disease, suggesting that biological interactions among the diet’s healthful components were responsible for the benefits, especially dietary constituents such as high fiber and a low omega-6 to omega-3 fatty acid ratio.

Meanwhile, Italian investigators have studied the impact of the Mediterranean diet on estrogen levels in 115 healthy postmenopausal women. They found that women on the diet showed a significant decrease of over 40% in total urinary estrogen levels, particularly estrogen metabolites linked with cancer risk. The investigators concluded this provided a basis for dietary preventive measures against breast cancer.⁴⁹ In the United States, scientists have also found a beneficial effect of higher conformity with the Mediterranean dietary pattern on risk of death from cancer by up to 12%.³

Other studies have found that olive oil and fish oil, both major components of the Mediterranean diet, could be the key to reducing cancer. Oleic acid, a monounsaturated fatty acid that is the main component of olive oil, has been shown to block the expression of a well-characterized oncogene that boosts the growth of breast cancer cells.⁵⁰ The antioxidant power of polyphenol-rich compounds in olive oil also reduces oxidative DNA damage⁵¹ and confers important protection⁵² against other

forms of cancer such as colorectal cancer.⁵³ Meanwhile, the omega-3 fatty acids, eicosapentaenoic acid and docosahexaenoic acid, have shown promise in preventing prostate cancer⁵⁴ and breast cancer⁵⁵ by reducing dangerous inflammation⁵⁶ and promoting healthy gene expression.⁵⁵

These findings translate into important benefits for cancer protection. Scientists believe that replacing the Western diet with the Mediterranean diet could prevent the incidence of colorectal cancer by 25%, breast cancer by 15%, and prostate, pancreatic, and endometrial cancers by 10%.⁵⁷

ANCIENT TRADITIONS, MODERN DIET

But what exactly is the Mediterranean diet? At least one researcher has defined it as, “the dietary pattern found in the olive-growing areas of the Mediterranean region, in the late ‘50s and early ‘60s, when the consequences of World War II were overcome, but the fast-food culture had not reached the area yet.”¹⁶ But, as another leading researcher points out, “the term “Mediterranean diet,” implying that all Mediterranean people have the same diet, is a misnomer. The countries around the Mediterranean basin have different diets, religions and cultures.”¹⁷ So what I did, in developing the Miami Mediterranean diet, was to combine elements from all the best of those cultures and cuisines, guided by both tradition and modern science. The result is a diet that reflects the ancient dietary traditions of the Mediterranean basin, adapted for a modern American public in desperate need of nutritional guidance. Although I’ve successfully leveraged the principles of the Mediterranean diet in my medical practice for more than two decades, it seems the world has only recently begun to notice what my patients have known for years—this is a diet and lifestyle that works. And scientific validation of the diet’s health claims has accumulated dramatically in the past decade. In the two short years since the publication of the first edition of the Miami Mediterranean Diet, for instance, numerous clinical trials published in the medical literature have confirmed my message—this diet works; this diet saves lives.^{1,3-13,18-23}

Few, if any other diets, can claim as much with equal authority. For thousands of years the people of the Mediterranean region have benefitted from this healthful lifestyle. Of course, they didn’t set out to adopt a specific diet with carefully targeted benefits. Rather, they drew sustenance from the land and the sea as their forbears had always done. They cultivated olive and fruit trees and vegetable and herb gardens, raised sheep and goats, and harvested grains and the bounty of the sea. They were only doing what seemed natural, but as it happens, theirs is a uniquely healthful diet and lifestyle. Extra-virgin olive oil, for instance, is remarkably heart healthy since it lowers harmful LDL. It also helps to prevent oxidation of LDL through the action of its abundant polyphenols.^{5,6,8,24,25} Likewise, fresh vegetables, fruits, nuts, beans, fish, and red wine (consumed in moderation) all contribute to the health benefits of the Mediterranean diet. Red meat is infrequently consumed, and even then, it is ordinarily used simply to flavor dishes such as soups and stews.

Recent rigorous science has proven it. From weight loss to improved lipid profiles and significantly reduced risk of developing a variety of cancers, osteoporosis, stroke, and even Alzheimer’s disease,^{3,4,9,11,12,21,26-30} adherents of the Mediterranean diet reap numerous long-term benefits that are virtually guaranteed to deliver longer, healthier life.

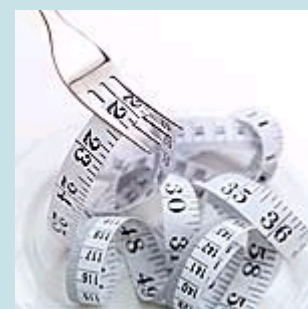
Of course, it’s not all due to food alone. My book also emphasizes the importance of exercise and stress reduction for maximum health benefits. The Mediterranean lifestyle includes daily exercise, which is as important to good health as a proper diet. Stress reduction is another integral component of this heart-friendly regimen. Exercise, diet and stress reduction are complementary activities in my New World version of this longevity-inducing Old World lifestyle. “The Mediterranean diet and lifestyle can help reduce our level of stress,” I wrote, in the original Miami Mediterranean Diet. “Meals are enjoyed with family and friends in a relaxed fashion, with ample time for friendly conversation. Often a short nap or ‘siesta’ follows the meal.” And as un-American as a mid-day nap may sound, brief naps may actually improve both productivity and overall health.^{31,32}

MEDITERRANEAN DIET FIGHTS METABOLIC SYNDROME

A wealth of growing research backs the benefits of the Mediterranean diet in reducing signs of the metabolic syndrome. This condition is characterized by insulin resistance and comprises many dangerous health threats such as abnormal cholesterol levels, high blood pressure, abdominal obesity, and vascular inflammation.

Numerous studies have shown that a Mediterranean-style diet, which is relatively high in monounsaturated fat from olive oil and polyunsaturated fat from fish, together with a moderate intake of carbohydrates, improves endothelial function and decreases blood pressure and insulin resistance.^{19,23,58,59} This type of diet also improves cholesterol levels and blood sugar control in people with type 2 diabetes,⁶⁰ decreases inflammation,^{58,60} and has been shown to be better than step 1 of the recommended diet from the National Cholesterol Education Program in preventing cardiac events.⁶¹ Furthermore, following a Mediterranean diet has shown weight-loss benefits in people who were not even trying to shed pounds.⁶²

Recent studies have also revealed that increased dietary intake of betaine and its precursor choline, both rich in the Mediterranean diet, reduce blood levels of inflammatory markers, such as interleukin-6, C-reactive protein (CRP), tumor



necrosis factor-alpha (TNF-alpha), and homocysteine that are linked to a range of vascular diseases.^{63,64}

Furthermore, a recent review concluded that together with regular physical activity and not smoking, healthy food choices consistent with the Mediterranean diet could avert up to 80% of heart disease, 70% of stroke, and 90% of type 2 diabetes.⁶⁵

BOUNTIFUL EVIDENCE: THE INFLAMMATION CONNECTION

Why does the Mediterranean diet work? One theory is that this diet significantly reduces saturated fat consumption and eliminates trans fat intake, thereby reducing atherosclerosis and significantly improving cardiovascular health. Another is that it reduces inflammation. Still another is that it supplies significant quantities of free radical-fighting antioxidants. Perhaps all these factors play a role. Extensive research has certainly demonstrated the role of inflammation in the development and progression of degenerative diseases, such as heart disease, cancer, and diabetes.^{23,33-36}

Key components of the Mediterranean diet have been shown to be anti-inflammatory. Among these are omega-3 fatty acids from fish.^{37,38} In contrast, the typical American diet, with its high content of saturated fat, trans fatty acids, and omega-6 fatty acids, is pro-inflammatory.^{35,39-45}

The results of such a diet became apparent late last year, when British researchers published the findings from a decade-long prospective study on a large sample of the aging US population. By gleaning information about diet and mortality from the National Institutes of Health-AARP Diet and Health Study scientists were able to determine the extent to which conforming to a classic Mediterranean diet influences life span.

They discovered that “the Mediterranean diet was associated with reduced all-cause and cause-specific mortality.” In women, the greater the conformity to the tenets of the diet, the greater the benefits, including, “decreased risks that ranged from 12% for cancer mortality to 20% for all-cause mortality.”³ This is a remarkable validation of a particular dietary pattern, especially given the study’s robust sample size of more than 380,000 American men and women.



Another large study published by Greek researchers last year documented improvements in insulin sensitivity, as well as decreases in cholesterol levels and systolic blood pressure, even among overweight and obese men and women who at least came “close” to sticking to the Mediterranean diet.⁴ The study yielded data showing that subjects with the greatest adherence to the classic Mediterranean diet were more likely to have normal blood glucose metabolism. This implies that this diet is also protective against type 2 diabetes.

A previous report by the same Greek research team concluded that greater adherence to the Mediterranean diet was associated with a reduced incidence of obesity.¹² In other words, the Mediterranean diet is slimming, not fattening. Of course, my patients and I have known that for years.

OFFSETTING ASTHMA, ALLERGIES WITH THE MEDITERRANEAN DIET

Consuming a Mediterranean-style diet may protect children against common and troublesome respiratory conditions such as asthma and allergies, according to recent studies.^{46,47}

Scientists examined the relationship of dietary factors, respiratory symptoms, and allergy test results in 690 children living on the Greek isle of Crete. A high intake of local fruits and vegetables was protective against the development of wheezing and rhinitis (nasal inflammation). Consuming nuts also protected against wheezing, while eating margarine increased the risk of wheezing and allergic rhinitis. Children who closely adhered to a traditional Mediterranean diet displayed a lower risk of allergic rhinitis, wheezing, and atopy (allergies). In sum, the investigators concluded that a Mediterranean diet protects against childhood symptoms of asthma and rhinitis, and that Crete’s traditional diet may explain the low rates of allergic symptoms in local children.⁴⁶

A Spanish study similarly noted protective benefits of the Mediterranean diet against childhood asthma and allergies.⁴⁷ Higher intakes of seafood and cereals were protective against severe asthma, while eating fast food increased asthma risk. Eating more fruits and seafood protected children against developing hay fever.

Together these studies suggest that a Mediterranean-style diet can help children stay healthy so they have plenty of energy for study and play.

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CONCLUSION

The traditional Mediterranean diet has long been associated with long life span and a decreased risk of degenerative disease, and modern science now confirms the vast benefits of this style of eating. Now you too can reap the benefits of this traditional diet, using the guidelines and menu plans outlined in the Miami Mediterranean Diet.

IMPROVING LIPID PROFILES WITH THE MEDITERRANEAN DIET

Health-enhancing polyphenols found in olive oil may be a critical component in reducing LDL oxidation, which may be one of the protective mechanisms by which the Mediterranean diet reduces coronary heart disease. A number of studies in healthy volunteers found that consuming olive oil containing an increasing amount of polyphenols provided greater protection against LDL oxidation,^{66,67} while also favorably boosting HDL levels.^{68,69}

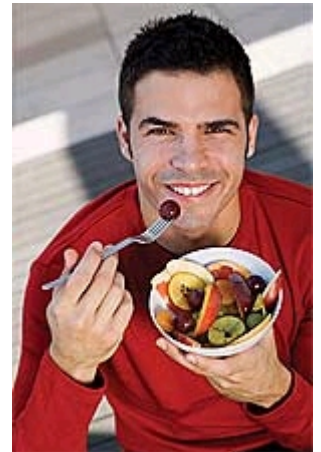
The Mediterranean diet has also been shown to work better than a low-fat diet in quickly lowering LDL levels as well as blood pressure and blood sugar.⁷⁰ Further evidence of a significant protective effect comes from an ongoing study in individuals at high risk of cardiovascular disease. Preliminary results from this study indicate that those who improve their diet towards a Mediterranean pattern have significant reductions in cellular lipid levels and LDL oxidation. The study provides further evidence to recommend the diet as a useful primary prevention strategy for coronary heart disease.¹⁹

Delicious and satisfying, the Miami Mediterranean diet has helped many individuals to improve their cardiovascular health, avoid invasive procedures, lose weight, avert diabetes and metabolic syndrome, and maintain their youthful vitality. I hope you'll join us in following this healthful diet and lifestyle. It could just save your life.

If you have any questions on the scientific content of this article, please call a Life Extension Health Advisor at 1-800-226-2370.

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Prevention," an annual international meeting highlighting advances in preventive cardiology. Dr. Ozner is the past president of the American Heart Association of Miami. For more information, visit www.cardiacoz.com.



NEW STUDY PUTS MIAMI MEDITERRANEAN DIET INTO PRACTICE

At the request of the government of St. Kitts and Nevis, Dr. Michael Ozner, as co-investigator, is overseeing a year-long, population-based study on the heart-healthy benefits of the Miami Mediterranean Diet. In an effort to prevent heart disease in women, this study will investigate an overall lifestyle program that includes the Miami Mediterranean Diet, vitamin and fish oil supplementation, exercise, and stress reduction as a model for healthy living. Ideally, the results from this study will serve as a program of preventive health for the entire Caribbean basin.

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