

ESM Partners

Preventive Medicine Research Institute

The Preventive Medicine Research Institute's primary mission is to perform pioneering scientific research, education, and service of the highest quality. A non-profit public foundation, the Institute's founder and director is Dean Ornish, M.D.

For many years, the focus of the PMRI has been the treatment of severe coronary heart disease—the nation's number one killer—through diet and lifestyle changes. Dr. Ornish has been studying alternative treatments for heart disease since the late 70s. With its founding in the 1980s, the Institute began a series of scientific studies demonstrating that the progression of even severe coronary heart disease often can be reversed simply by making comprehensive changes in diet and lifestyle. PMRI is utilizing these same principals in studies on prostate cancer.

Lifestyle Heart Trial and Follow-up Study

The initial research study of the PMRI was the Lifestyle Heart Trial, conducted in conjunction with researchers at the University of California at San Francisco and the University of Texas Medical School in Houston. The trial found that after one year, heart patients who made intensive changes in diet, exercise, stress management, and other lifestyle factors had a 37.2 percent reduction in LDL cholesterol (low-density lipoprotein, or "bad" cholesterol), less frequent angina (chest pain), and a reduction

in stenosis (narrowing or constriction of blood vessels or valves in the heart). By contrast, patients who made only moderate changes reduced LDL cholesterol by only 6 percent, had more frequent angina, and a greater narrowing of the blood vessels.

Among the 48 patients from the original Lifestyle Heart Trial study, 35 agreed to take part in a follow-up study that required maintaining comprehensive lifestyle changes for five years. On average, this group demonstrated even more reversal of heart disease after five years than after one year and older patients improved as much as the younger patients.

In contrast, the patients in the comparison group who made only the moderate lifestyle changes as recommended by most physicians (i.e., the 30 percent fat diet the American Heart Association advises) worsened after one year and their coronary arteries became even more clogged after five years. Also, they had more than twice as many cardiac events, such as heart attacks, strokes, bypass surgery, and angioplasty (45 events, 2.25 events per patient) than in the group that adhered to the lifestyle change regimen (25 events, 0.89 events per patient).

How Practical and Cost-effective is this Lifestyle Program?

Beginning in 1993, PMRI established the Multicenter Lifestyle Demonstration Project. It was designed to answer the question—



Contact information

The Preventive Medicine
Research Institute
900 Bridgeway
Sausalito, CA 94965
Phone 415.332.2525
Fax 415.332.5730
www.pMRI.org



Almost 80 percent of people who were eligible for bypass surgery or angioplasty were able to avoid it safely by making comprehensive lifestyle changes in the hospitals they trained.

can some patients avoid bypass surgery and angioplasty by making comprehensive lifestyle changes at lower cost without increasing cardiac morbidity and mortality?

PMRI trained a diverse selection of more than 20 hospitals and other sites around the country. Almost 80 percent of people who were eligible for bypass surgery or angioplasty were able to avoid it safely by making comprehensive lifestyle changes in the hospitals they trained. Mutual of Omaha calculated savings of almost \$30,000 per patient. These patients reported reductions in angina comparable to what can be achieved with bypass surgery or angioplasty without the costs or risks of surgery. Patients who needed bypass surgery or angioplasty were able to reduce the likelihood of needing another operation by making comprehensive lifestyle changes after surgery.


Insurers Take Notice

More than forty additional insurance companies are covering this approach as a defined program either for all qualified members or on a case-by-case basis at the sites PMRI has trained. One of these, Highmark Blue Cross, Inc., Pittsburgh PA, was the first to both cover and provide this program to its members, now at three different sites. Of the first 350 patients who went through the program at Highmark, 348 safely avoided bypass surgery or angioplasty, saving more than \$17,000 per patient.

In 1999, after Medicare's Health Care Financing Administration looked closely at the progress of participants in the Highmark Blue Cross/Blue Shield program, Medicare announced it would pay for up to 1,800 elderly Americans with severe heart disease to try the Lifestyle Modification Program.

Current Initiatives

In April of 1997, PMRI initiated research on a slightly modified version of the lifestyle modification program to see if it would help

men with prostate cancer. Initial results have been presented and are promising. Now, Dr. Ornish and his colleagues are beginning two new studies to better understand some of the mechanisms by which this may occur, including if nutritional supplementation or comprehensive lifestyle changes may affect prostate cancer gene expression. In particular, they are studying whether diet and lifestyle changes can "turn on" protective genes and "turn off" harmful ones. 

CLINICAL RESOURCES ON PMRI RESEARCH

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