

Grounded in lifestyle changes
in four pillars of daily life

- A whole foods, plant-based diet naturally low in fat and refined carbohydrates
- Moderate aerobic exercise
- Stress management techniques
- Psychosocial support

For nearly four decades,

Dr. Ornish has directed randomized controlled trials and demonstration projects which document for the first time that these comprehensive lifestyle changes may **stop and even reverse the progression** of coronary heart disease. These results have been published in leading peer-reviewed journals.

Medicare now reimburses

accredited providers for 72 hours of **Dr. Ornish's Program for Reversing Heart Disease** as "Intensive Cardiac Rehabilitation."

Many major commercial insurers reimburse the program as well.

Evidence-Based Medicine
Redefining the Standard of Care
in Coronary Heart Disease

Ornish Lifestyle
Medicine™

The first and only
lifestyle change
program proven in
randomized
controlled clinical
trials to:

- ✓ Regress coronary stenosis,
- ✓ Increase myocardial perfusion, and
- ✓ Reduce cardiac events

in patients with
coronary heart
disease.¹⁻⁴

Lifestyle Change – A Direct Alternative
to Revascularization

The Multicenter Lifestyle
Demonstration Project

Included patients with coronary artery
disease with insurance approval for
revascularization¹⁰

First-year savings* per Intervention
patient: \$29,529¹⁰

*Versus matched controls, based on Mutual of Omaha data

At 3 years¹⁰
77% of Intervention patients *avoided*
revascularization, with *no increased*
frequency of cardiac events[†]

[†]Number of events per patient-year of follow up was not significantly different for Intervention group vs. controls for MI, stroke, noncardiac death, and cardiac death¹⁰

*"[Intervention] group patients were able to avoid revascularization for at least 3 years ... at substantially lower cost without increasing cardiac morbidity and mortality."*¹⁰

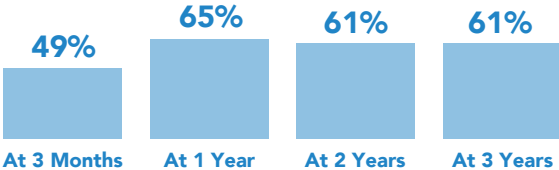
Fast Improvement of Angina

96.5%

of Highmark patients
reported improvements in
angina severity after 1 year⁶

*"The major reason that most stable patients undergo CABG or PTCA is to decrease the frequency of angina, and comparable results may be obtained by making comprehensive lifestyle changes alone."*¹⁰

Intervention patients with angina at baseline
reporting no angina at all in the preceding
30 days¹⁰



These results are comparable to what can be
achieved with revascularization¹⁰

For more information,
visit OrnishProgram@mednet.ucla.edu
or contact an Ornish Care Specialist,
310.794.1800.



References

1. Ornish D, Brown SE, Scherwitz LW, et al. Can lifestyle changes reverse coronary heart disease? The Lifestyle Heart Trial. *The Lancet*. 1990;336:129-133.
2. Ornish D, Scherwitz LW, Billings JH, et al. Intensive lifestyle changes for reversal of coronary heart disease. *JAMA*. 1998;280:2001-2007.
3. Gould KL, Ornish D, Scherwitz L, et al. Changes in myocardial perfusion abnormalities by positron emission tomography after long-term, intense risk factor modification. *JAMA*. 1995;274:894-901.
4. Ornish DM, Scherwitz LW, Doody RS, et al. Effects of stress management training and dietary changes in treating ischemic heart disease. *JAMA*. 1983;249:54-59.
5. Silberman A, Banthia R, Estay IS, et al. The effectiveness and efficacy of an intensive cardiac rehabilitation program in 24 sites. *Am J Health Promot*. 2010;24:260-266.
6. 2011 Outcome data managed by Highmark Inc.
7. 2009 Cost Effectiveness data managed by Highmark Inc.
8. American Diabetes Association. Executive summary: standards of medical care in diabetes--2014. *Diabetes Care*. 2014;37(suppl1):S5-S13.
9. Frattaroli J, Weidner G, Merritt-Worden TA, et al. Angina pectoris and atherosclerotic risk factors in the Multisite Cardiac Lifestyle Intervention Program. *Am J Cardiol*. 2008;101:911-918.
10. Ornish D, for the Multicenter Lifestyle Demonstration Project Research Group. Avoiding revascularization with lifestyle changes: The Multicenter Lifestyle Demonstration Project. *Am J Cardiol*. 1998;82:72T-76T.



ornish
lifestyle medicine™



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Thousands of Patients Have Achieved Rapid, Real-World Results

Highmark Blue Cross Blue Shield's Experience

3,780 patients enrolled in the Ornish Lifestyle Medicine™ program at 24 sites in Illinois, Nebraska, Pennsylvania, and West Virginia⁵⁻⁸

Key findings from multiple analyses of these patients⁵⁻⁸

- Overall program adherence after 1 year was 85 to 90% at all sites
- 96.5% of patients reported improvement in severity of angina after 1 year
- The average patient lost 13.7 pounds in the first 12 weeks and 15.9 pounds after 1 year
- Significant reductions in systolic blood pressure, diastolic blood pressure, total cholesterol, triglycerides, and LDL cholesterol after 12 weeks were still significant after 1 year
- 50% reduction in overall health care costs in the first year and a 4-fold reduction in the first year in those costing more than \$25,000 in the prior year
- Depression scores were reduced by almost 50%
- Exercise capacity increased from 8.7 to 10.6 METS after 12 weeks (22% increase) and to 10.8 METS after 1 year (24% increase)
- Only 45% of these patients had heart disease. 34% had type 2 diabetes, and the others had only risk factors**
- In patients with diabetes, hemoglobin A1C decreased from 7.4% at baseline to 6.5% after 12 weeks and 6.8% after 1 year (complications of diabetes such as blindness, kidney failure, heart disease, and amputations can be prevented when hemoglobin A1C is less than 7.0%)

Most participants were following a Step 2 diet when they began our program; the marked improvements cited above came on top of benefits already achieved through diet.

**CV risk factors were high blood pressure, elevated cholesterol, or unhealthy weight

Multisite Cardiac Lifestyle Intervention Program

In another large insurance-based study of 1,152 patients with coronary artery disease participating in the lifestyle intervention program:

74% became angina-free at 12 months⁹

The Landmark Lifestyle Heart Trial

The first randomized, controlled clinical trial assessing the lifestyle changes underlying Ornish Lifestyle Medicine in patients with coronary disease. Primary results were published in *The Lancet*¹ and *JAMA*²

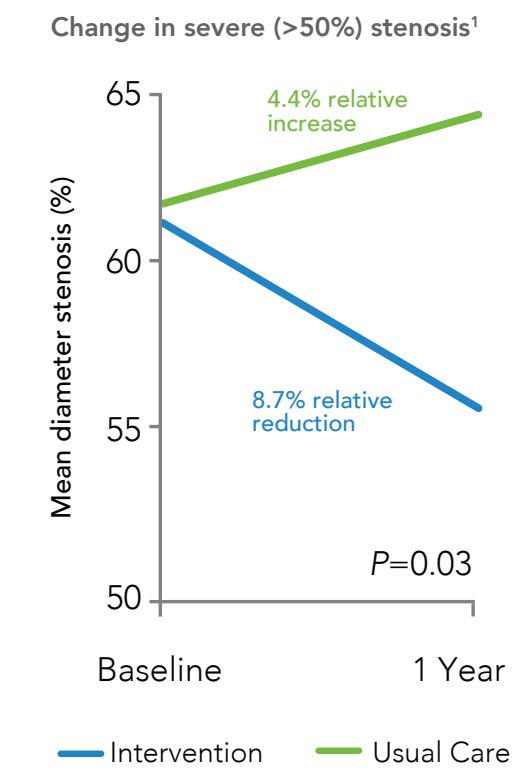
Lifestyle Change as Treatment for Reversing Heart Disease ...And Improving Outcomes

Regression of stenosis at 1 year (by quantitative angiography)

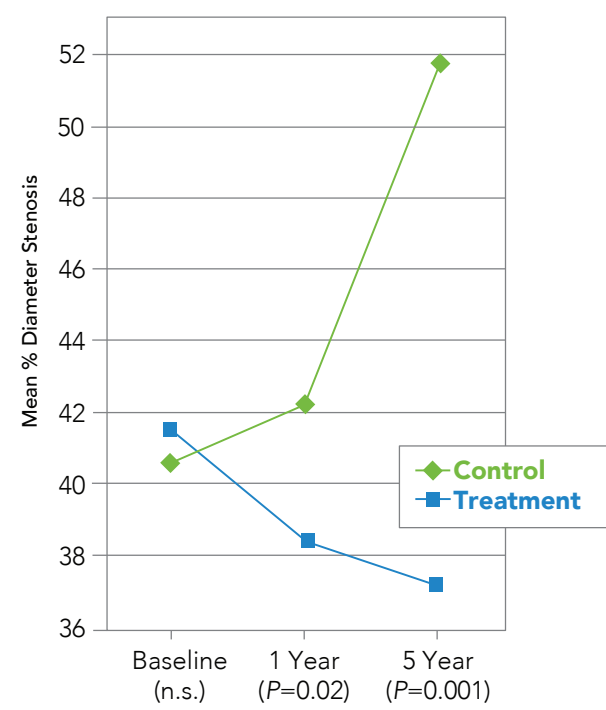
82% of patients achieved improvement in mean diameter stenosis at 1 year¹

All of the patients in both groups had at least one coronary artery with at least 75% stenosis at baseline¹

The Intervention group also achieved a 24-pound average weight loss and a 91% average reduction in angina frequency after 1 year²



Changes in quantitative coronary arteriography²



In the Intervention group, size and severity of perfusion abnormalities on dipyridamole PET images improved, compared to worsening with usual care

99% of patients in Intervention group stopped or reversed their CHD as measured by cardiac PET scans and showed a 300% average improvement in myocardial perfusion³

At 5 years, the Usual Care group was at **2.5 times greater risk** of experiencing a cardiac event[†] than the Intervention group²

†Cardiac events was a composite endpoint consisting of MI, PTCA, CABG, cardiac hospitalization, and death

Other Results from the Randomized, Controlled Lifestyle Heart Trial

Effects of lifestyle change and usual care on LDL cholesterol and angina frequency¹

Angina Frequency

91.2% reduction in angina frequency in the Intervention group

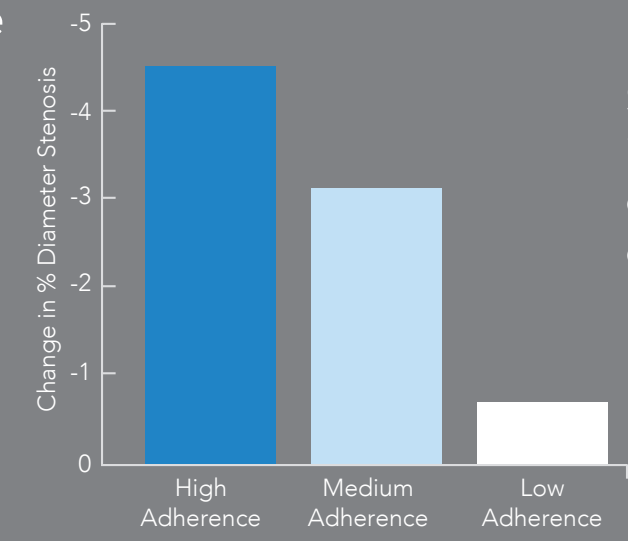
165.5% increase in angina frequency in the Usual Care group

There was a 40% average reduction in LDL cholesterol after 1 year in the Intervention (lifestyle change) group, without lipid-lowering drugs²

A Clear "Dose Response" to Lifestyle Adherence

Improvements in stenosis by level of adherence to lifestyle changes at 1 year (Intervention group)¹

The more closely patients adhered to the lifestyle program, the more improvement was measured in coronary heart stenosis at any age



Similar differences in stenosis by level of adherence were observed at 5 years²