The Transformative Power of Lifestyle Medicine

Dr. Dean Ornish, Founder & President, Preventive Medicine Research Institute, U.S.
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Lifestyle Medicine = lifestyle to **reverse** disease as well as prevent it.
Transformative Power of Lifestyle Medicine

- Whole foods plant-based diet naturally low in fat & refined carbohydrates
- Stress management
- Moderate exercise
- Psychosocial support
What is the cause?
Your body often has a remarkable capacity to begin healing itself if you give it a chance to do so—and quickly.
Impossible
Disruptive
Can Lifestyle Changes Reverse Heart Disease?
Lifestyle Heart Trial

% Diameter Stenosis: Quantitative Coronary Arteriography

- Baseline (n.s.)
- 1 year (P<.02)
- 5 years (P<.001)

There was a 400% improvement in coronary blood measured by cardiac PET scans after 5 years.

Figure 2. Quantitative coronary angiograms and cardiac PET scans obtained.
99% of patients stopped or reversed their heart disease as measured by cardiac PET scans after 5 years. In contrast, only 5% of controls improved (p = 0.03).

Adherence and Change in Coronary Atherosclerosis after Five Years

Lifestyle Heart Trial

- There were 2.5 times as many cardiac events in the randomized control group as in the lifestyle group after five years.
Can Lifestyle Changes Reverse Prostate Cancer?
Changes in PSA

Baseline 12 Months

Control (n=41)  Experimental (n=43)

P=0.002

Degree of Lifestyle Change and Changes in PSA

Change in Prostate Tumor Growth (LNCaP)

Degree of Lifestyle Change and Inhibition of LNCaP Tumor Growth

Baseline-12m Change in LNCAP Cell Growth

P=0.0001

Baseline
PSA—6.4 ng/ml

1 year later
PSA—4.5 ng/ml
None of the experimental group patients but six control group patients had conventional treatment during the first year.

can lifestyle changes beneficially affect gene expression?
Gene expression in 501 genes was beneficially affected in only 3 months.

Oncogenes that promote prostate cancer, breast cancer, and colon cancer were downregulated (turned off).
change in genes linked with breast cancer and prostate cancer (red = turned on green = turned off)

Our Genes Are Not Our Fate
Can Lifestyle Changes Reverse Cellular Aging?
Telomerase increased 30% in only 3 months

Mean Changes in Telomere Length After 5 Years

There was a significant correlation between adherence and telomere length (p<0.007).

The more chronic diseases and the more mechanisms we studied, the more benefits we documented.
Same diet and lifestyle program for all of these improvements.
Shared Underlying Mechanisms

- Chronic inflammation
- Oxidative stress
- Apoptosis
- Angiogenesis
- Gene expression
- Telomeres
- Immune system
What enables people to make sustainable changes in their lives?
Risk factor modification = fear-based
Fear is not a sustainable motivator
Fun, freedom, pleasure, & love
Love is more powerful than fear
Adherence to Statin Therapy

% of 37,000 New-to-Statin Patients Remaining on Therapy

Source: NDC Health Information Services, 1998
• Adherence was 85-90% in 3,780 men and women at all sites after 1 year
When people feel loved and cared for, they are more likely to make lifestyle choices that are life-enhancing than self-destructive.
Dynamic
There’s no point in giving up something you enjoy unless you get something back that’s even better—and quickly!
DO LIFESTYLE CHANGES SAVE MONEY?

multicenter lifestyle demonstration projects
Lifestyle Medicine Saves Money Quickly

- 80% of U.S. total health care costs are due to 5% of the population.
- Therefore, this lifestyle medicine program shows **substantial cost savings in the first year**.

Almost 80% of 333 patients who were eligible for bypass surgery or angioplasty were able to safely avoid it by changing lifestyle.


Mutual of Omaha calculated saving almost $30,000 per patient in the first year.
The Highmark Blue Cross Blue Shield Demonstration Project: Cost Comparisons After 3 Years

<table>
<thead>
<tr>
<th>Year</th>
<th>Experimental Group (CAD)</th>
<th>Matched Cohort Members</th>
</tr>
</thead>
<tbody>
<tr>
<td>Baseline</td>
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<td>0</td>
</tr>
<tr>
<td>Year 1</td>
<td>$7,500</td>
<td>$10,000</td>
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<tr>
<td>Year 2</td>
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<td>$7,500</td>
</tr>
<tr>
<td>Year 3</td>
<td>$2,500</td>
<td>$5,000</td>
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</tbody>
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- Experimental Group (CAD) (N=75) Baseline vs. 3 year average=8.7% decrease in costs
- Matched Cohort Members (CAD) (N=75) Baseline vs. 3 year average=47.2% increase in costs
In the year after entering our lifestyle program, there was a 400% reduction in patients with claims costs greater than $25,000 compared to matched controls.
On January 1, 2011, Medicare began covering “Dr. Ornish’s Program for Reversing Heart Disease,” the first time Medicare has covered a program of lifestyle changes as treatment in a new benefit category, “Intensive Cardiac Rehabilitation.”
We train a team of six health care professionals:

- Physician = Quarterback
- Nurse
- Stress management specialist
- Exercise physiologist
- Registered dietitian
- Clinical psychologist
Patients come for 18 four-hour sessions with 15 patients/class (twice/week for 9 weeks):

- 1 hour of supervised exercise
- 1 hour of stress management
- 1 hour of a support group
- 1 hour lecture + group meal

Or a 12-day immersion retreat (six hours/day x 12 days)
Patients come for 18 four-hour sessions with 15 patients per class.

Medicare reimburses $107/hour/patient:

72 hours are reimbursed =
72 x $107/hour = $7,704/patient

Commercial carriers reimburse $130/hr
x72 hours = $9,360/patient

15 patients/group x $107/hr = $1,605/hr
15 patients/group x $130/hr = $1,950/hr
If it’s reimbursable, then it’s sustainable.
Reclaiming our role as healers, not just technicians
DANGER IN LONELINESS

ISOLATION AND DEPRESSION → CHRONIC STRESS AND HEART DISEASE

PEOPLE SUFFERING FROM LONELINESS, DEPRESSION AND ISOLATION HAVE 3 TO 10 TIMES GREATER RISK FOR PREMATURE DEATH

Depression and Mortality 6 months After a Heart Attack

Frasure-Smith, N. JAMA 1993;270:1819.
INTIMACY IS HEALING

YOU CAN ONLY BE INTIMATE TO THE DEGREE THAT YOU CAN BE EMOTIONALLY VULNERABLE, AND YOU CAN ONLY BE VULNERABLE TO THE DEGREE THAT YOU FEEL SAFE.

GROUP SUPPORT IS A SAFE ENVIRONMENT FOR YOU
Support Groups DOUBLED
Survival in Breast Cancer

Social Networks & Health

- If your friends are obese, your risk of obesity is 45% higher
- If your friend’s friends are obese, your risk of obesity is 25% higher
- If your friend’s friend’s friend is obese, your risk is 10% higher—even if you’ve never met them

“Why do you want to live longer?”
If it’s meaningful, it’s sustainable
“I feel deprived because I can’t eat this food” is not sustainable.
“I’m choosing not to eat this because what I gain is much more than what I give up” is sustainable.
Choosing **not** to do something imbues it with deep meaning & purpose, making it **sacred**.
SACRED =

• the most meaningful
• the most intimate
• the most erotic
• the most exciting
• the most powerful
• the most fun
• the most ecstatic
Dis-ease
De-fine
Lifestyle Medicine and Wellness = Spiritual Journey and Conspiracy of Love
Doing this sacred work to help people use the experience of illness and suffering as a doorway for transforming and healing their lives in the most meaningful ways—for them and for each of us.