Heart Disease is Preventable

What can you do to reduce your risk?

• Achieve and maintain a healthy body weight
• Quit Smoking
• Control your blood sugar
• Control your blood pressure
• Manage stress
• Exercise
Heart Disease and Lifestyle

Relative risk of coronary heart disease by healthy lifestyle score

![Graph showing the relative risk of coronary heart disease by healthy lifestyle score. The x-axis represents the healthy lifestyle score (% distribution) with values ranging from 0 to 5 and corresponding to percentages of 2%, 20%, 32%, 28%, 14%, and 4%. The y-axis represents the relative risk (95% CI) of CHD, ranging from 0 to 1.2. The graph shows a downward trend as the healthy lifestyle score increases, with relative risks of 1.0 (ref), 0.46, 0.37, 0.29, 0.22, and 0.13.]
Heart Disease is Preventable

What can you do to reduce your risk?

- Diet Rx: Eat a whole foods, plant based diet
Cholesterol and Heart Disease

- Cholesterol is a lipid produced by the liver
- It is needed for various functions in the body:
  - Hormone and vitamin D production
  - Outer coating of cells
  - Makes bile to help digest fats
- The body makes all that we need
Atherosclerosis (arteries-hardening)

Excess cholesterol from both sources can build up in your bloodstream.
Total Cholesterol

- Above 240 is High Risk
- 200-240 is borderline high
- Below 180 is low risk
- Below 150 is very low risk
Cholesterol and Disease Risk

LIPID GOALS:

- THE GOOD: HDL (high density lipoprotein) > 60 mg/dl
- THE BAD: LDL (low density lipoprotein) < 100 mg/dl
- THE UGLY: Triglycerides < 150 mg/dl

For diabetics, the goal for LDL is < 70 mg/dl
Genetics or Lifestyle

Drug companies have spent $250 million to convince you that it's genetic!
Genetics or Lifestyle

FAMILIAL HYPER – CHOLESTEROL – EMIA:

(elevated) (cholesterol) (blood)

Heterozygous FH occurs in 1 in 500
Homozygous FH occurs in 1 in a million
Principles of a Heart Healthy Diet

What to Limit/Avoid

- Saturated Fat
- Trans Fat
- Cholesterol
- Sodium
- Sugar
Dietary Cholesterol

Only animal products contain cholesterol
Saturated Fat

• Found in: red meat, full-fat dairy products (cheese, whole milk, ice cream,) fried foods, poultry and poultry skin
• Also found in: coconut oil and palm oil
Saturated Fat

- Too much saturated fat can increase serum cholesterol levels
- The American Heart Association recommends we keep saturated fat to < 6% of total calories
  - On a 2,000 calorie diet, that’s about two slices of cheese
Trans Fat

- Trans fat can push up the bad LDL cholesterol and push down the protective HDL cholesterol
- Avoid foods that include “partially hydrogenated” oil on the ingredient list
  - Shelf-stable baked goods
  - Stick margarine
  - Frostings
  - Some crackers
  - Shortening
Hydrogenation

Hydrogenation produces TRANS fats

Hydrogenation aims to stabilize polyunsaturated oils to prevent them from becoming rancid and keep them solid at room temperature.

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Sodium

• Too much sodium in the diet can affect blood pressure
• Goal: < 1500 mg/day

How Much Sodium Is In Your Salt Shaker?
1/4 teaspoon salt = 575 mg sodium
1/2 teaspoon salt = 1,150 mg sodium
3/4 teaspoon salt = 1,725 mg sodium
1 teaspoon salt = 2,300 mg sodium
Sodium
Where Do We Get It?

- Processed Foods: 77%
- Naturally Occurring: 12%
- Added At The Table: 6%
- Added During Cooking: 5%
“Consumption of fruit & vegetables has been shown to be associated with decreased blood pressure under controlled conditions, particularly in hypertensive individuals.”

Luc Dauchet, MD, PhD; Philippe Amouyel, MD, PhD; Jean Dallongeville, MD, PhD,
Nature Reviews Cardiology, 08.08
Hypertension

- Fruits and vegetables contain:
  - Potassium
  - Phytochemicals
- Celery, spinach, beets and watercress can all increase levels of nitric oxide and help lower blood pressure
- One study found people who drank beet juice daily had a 10 mm/Hg drop in blood pressure (7)
Sugar

- Too much added sugar in the diet could increase the risk of dying from cardiovascular disease

- According to a 2014 study published in JAMA:
  - Over the course of 15 years, participants who took in 25% or more of their daily calories as sugar were more than twice as likely to die from heart disease as those whose diets included less than 10% added sugar (1)
Added Sugars

The American Heart Association recommends:

• No more than 6 teaspoons or 100 calories a day for women
• No more than 9 teaspoons or 150 calories a day for men
Berries

- Modest consumption of berries resulted in favorable changes in HDL and blood pressure (2)
- Healthy volunteers that ate a pint of strawberries every day for one month experienced a drop in the number of circulating platelets throughout their body (3, 4)
Food as Medicine
Essential Fatty Acids

- Omega 3 fats can help protect the heart by:
  - Interfering with platelet accumulation
  - Reducing inflammation
  - Reducing triglycerides
Why a Plant Based Diet?

According to the EPIC-Oxford study:
- Plasma total and LDL cholesterol were 32% and 44% lower among vegetarians and vegans (respectively) compared to omnivores (1)
- Other findings: Those following a plant based diet had substantially lower BMIs

Findings from the Adventists Cohorts:
- People that followed a plant based diet had 68% reduced risk for CVD or stroke (2)
Heart Disease is Reversible

Dr. Ornish reported his results at 1 year, 5 years, 12 years and 21 years.

Fully compliant patients decreased or eliminated episodes of angina, decreased cholesterol and weight, increased exercise capacity and arrested and reversed their disease on follow-up x-rays of the coronary arteries.

“Making moderate changes in your diet may be enough to prevent heart disease, but it won’t be enough to reverse it.”

Dean Ornish
Food as Medicine
Portfolio Dietary Study

Showed that inclusion of certain foods with known cholesterol-lowering properties:

- Plant sterols
- Soluble fiber
- Soy protein
- Nuts

Lowered LDL cholesterol an additional 18 mg (3)
Food as Medicine

Eat More Soluble Fiber

- Soluble fiber, found in oatmeal, chia seeds, bananas, oranges, and beans, can help lower LDL cholesterol
Translating to Action
So instead of this... Eat this!
A Big Question

How quickly can you lower your CHOLESTEROL?

“Curiosity may have killed the cat, but where human beings are concerned, the only thing a healthy curiosity can kill is ignorance.”

-Harry Lorayne
Super Size Me: Day 1

Start 165

"I'm Lovin' It!"
Peter Travers, Rolling Stone

SUPER SIZE ME
A Film of Epic Portions

healthpassport get there. start here.

Care ATC®
Super Size Me: Day 12

- Start: 165
- Day-12: 225
Super Size Me: Day 19

- Start: 165
- Day-12: 225
- Day-19: 230
Question & Answer
References


