

# Battling Heart Disease

## The Heart of Health

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Boulder Community Health

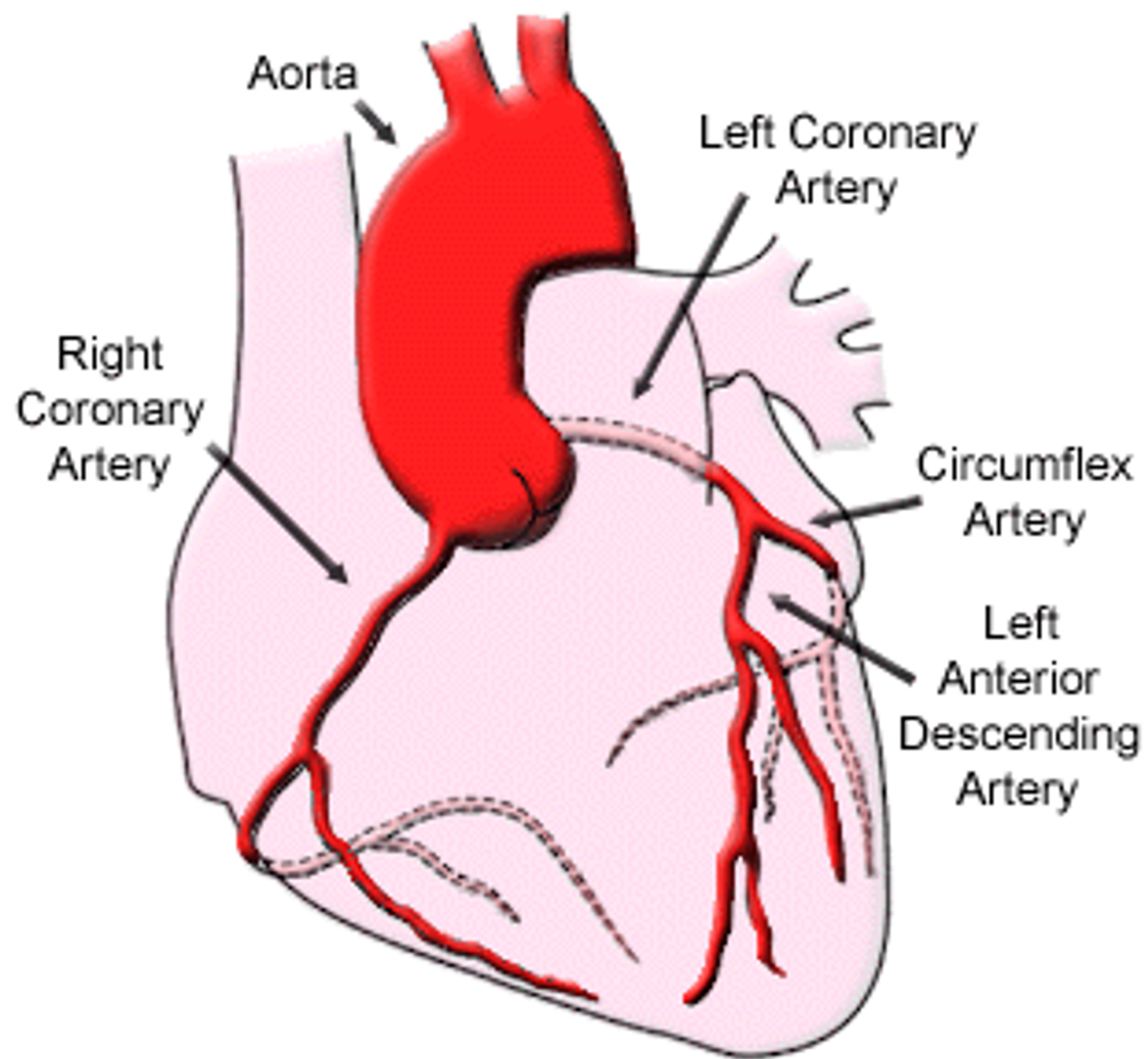
- Epidemiology
- What is Heart Disease?
- Screening: classic and newer risk factors and tests
- Prevention: **the importance of lifestyle**



- Heart disease is the most common cause of death in the U.S.
- 18.2 million people have coronary disease.
  - One death every 36 seconds.
  - 1 out of 4 deaths related to heart disease.
  - Over age 40, risk of developing disease is 49% in men, 32% in women.
  - These statistics apply to most racial and ethnic groups.

- Since 1984, more cardiovascular deaths in women than in men.
- 80% of people with sudden cardiac death had no prior symptoms.
- Younger people are affected too!

- Problems with the arteries
- Problems with the valves
- Problems with the rhythm
- Problems with the heart muscle function  
(usually caused by one of the above)





# Symptoms




- Chest pain: pressure, tightness, burning
- Shortness of breath
- Jaw, neck, arm, back pain
- Nausea/vomiting
- Sweating
- Fatigue, weakness, lightheadedness
- Trouble sleeping, uneasiness

# What Is a Heart Attack?

<http://vimeo.com/10063636>

# What Is a Heart Attack?

- Inflammation
  - Unstable plaque
  - Triggering event
    - Spike in blood pressure
    - Toxic insult
    - Mental stress
    - Physical stress
-  **STRESS HORMONES**



**Screening** = detection of disease before  
it causes an event

Goal: prevent events



*"I'll have an ounce of prevention."*

## **Classic cardiac risk factors:**

- High blood pressure (even if treated)
- High cholesterol
- Diabetes
- Smoking
- Family history of early heart disease
- Age > 55 for women, >45 for men
- Obesity
- Lack of exercise and poor exercise tolerance
- Chronic kidney disease



- Low Vitamin D
- Obstructive Sleep Apnea
- Other vascular disorders:
  - Raynaud's, migraine
  - Autoimmune

- HIV infection
- History of chest radiation and certain chemotherapies
- Gout
- History of pregnancy complications: high blood pressure, pre-eclampsia, gestational diabetes
- Polycystic ovarian disease

- Coronary artery calcium scoring
- Advanced cholesterol testing
  - Lp(a), particle size/particle number
- Measures of inflammation (hs-CRP)
- Carotid artery thickness by ultrasound

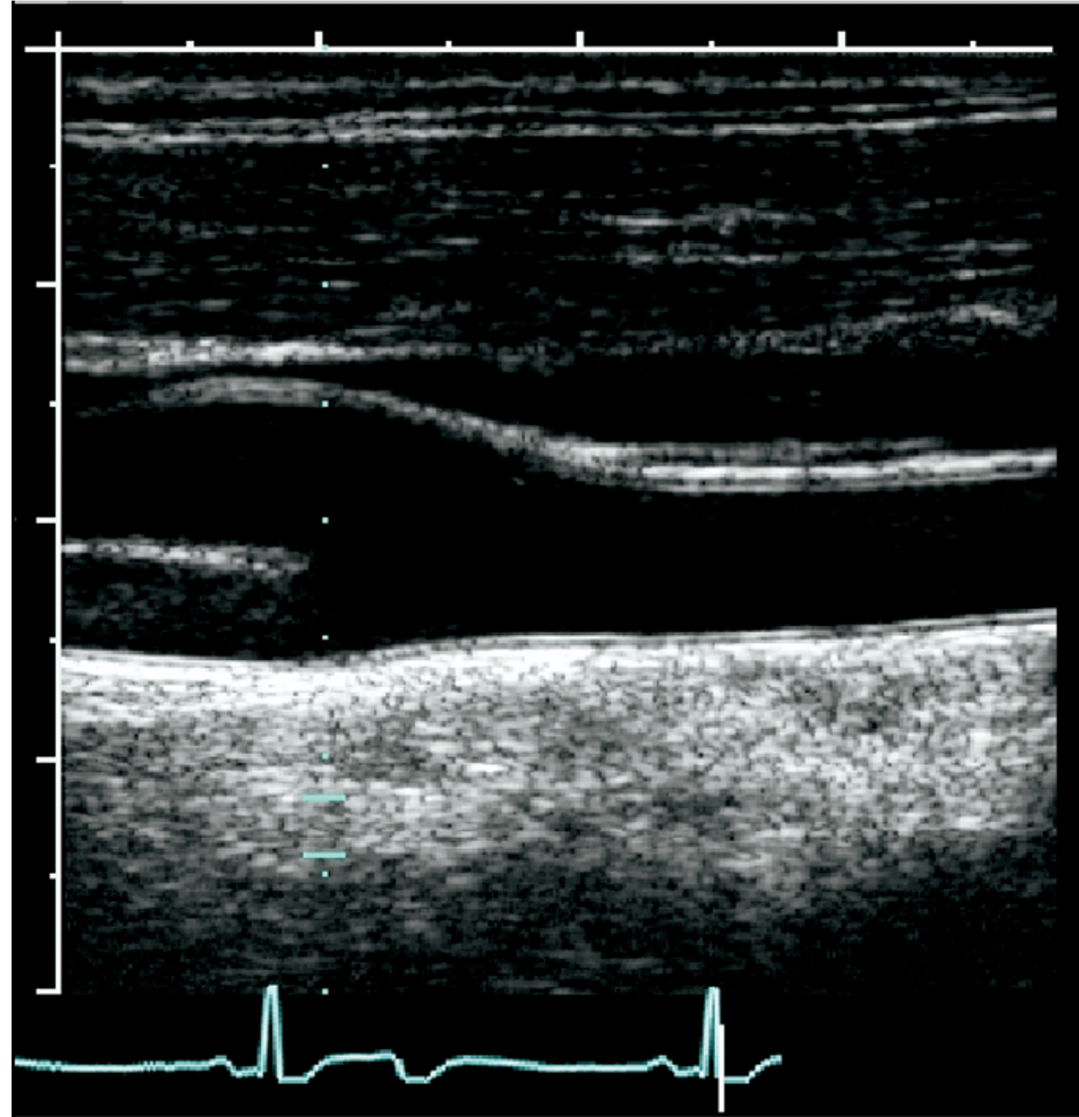




# Ultrasound of the Carotid Artery



# Image of Carotid Artery



# Who Should Be Screened?

- Everyone should know their numbers!
- All people should be asked about classic risk factors.
- “In the middle” people could consider additional screening.
- We ALL need to focus on primary prevention!

- Blood pressure 120/80
- LDL cholesterol <100
- HDL cholesterol > 50/40
- Triglycerides < 150
- BMI 18.5-24.9 (kg/m<sup>2</sup>)
- Waist < 35 inches female or 40 male
- Diabetes: hemoglobin A1C < 7%



# The Pillars of Health

- Nutrition
- Exercise
- Sleep
- Stress

# What Should I Eat?

# Mediterranean diet



 ADAM.



# Diet Evidence: Benefits of Fruits and Vegetables

## Nurses' Health Study and Health Professional's Follow-up Study

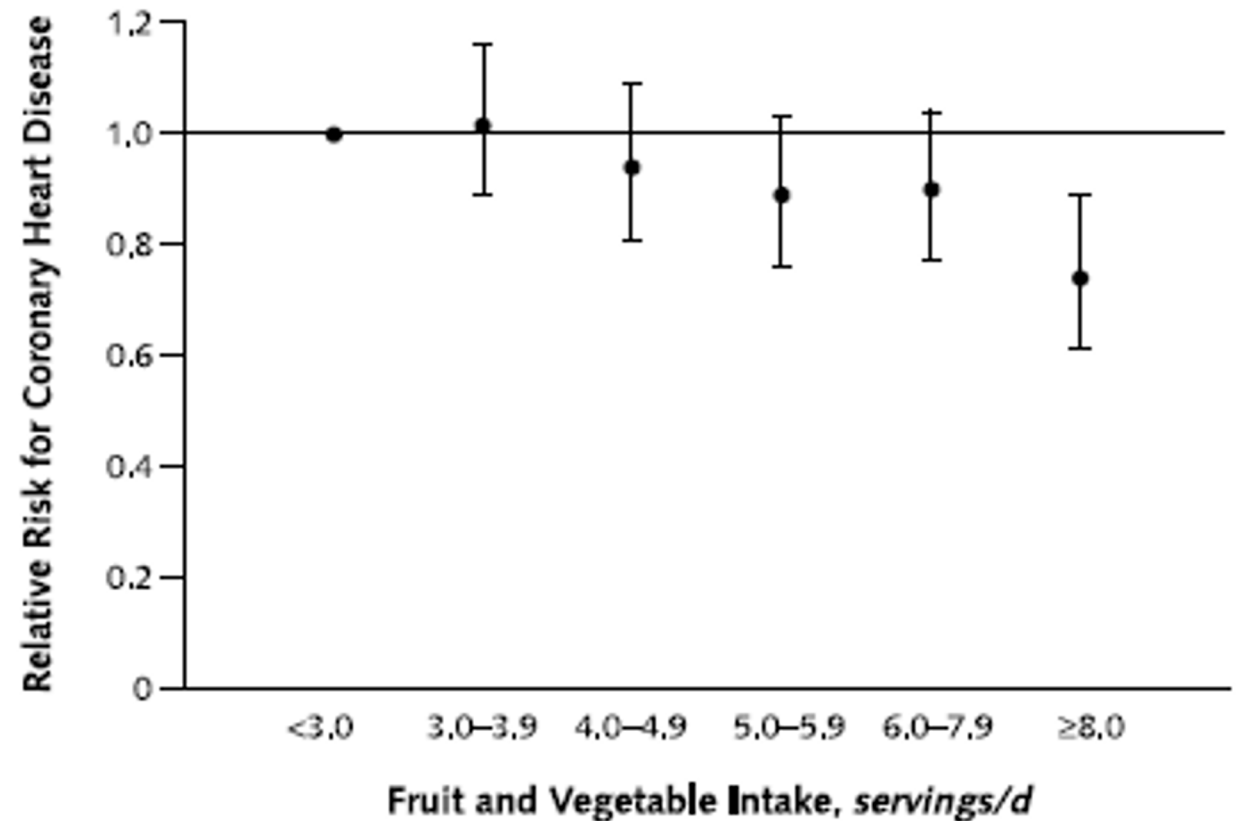
126,399 persons followed for 8-14 years to assess the relationship between fruit and vegetable intake and adverse CV outcomes\*

**Increased fruit and vegetable intake reduces CV risk.**

\*Includes nonfatal MI and fatal coronary heart disease

CV=Cardiovascular

Joshipura KJ et al. *Ann Intern Med* 2001;134:1106-1114



ENHANCEMENT  
(not deprivation)

- Reach for: vegetables and fruit
- Think: high fiber
- Think: unprocessed
- Think: good fats
- Think: high-quality protein



# Fat is Not the Enemy



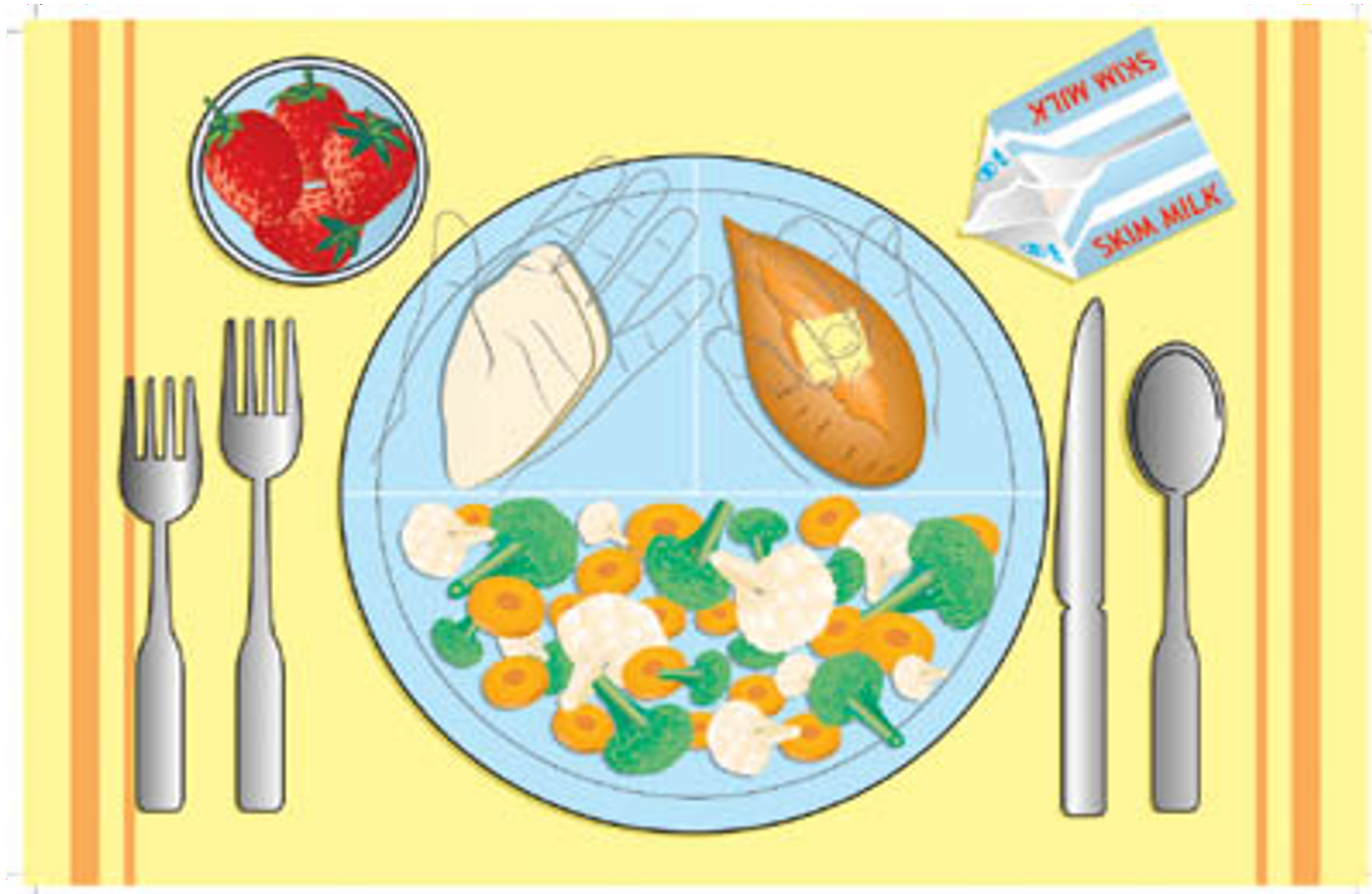


I bought my husband  
a set last year and  
he gained 30 pounds.

**VANITY  
PLATES**

REGULAR CHINA

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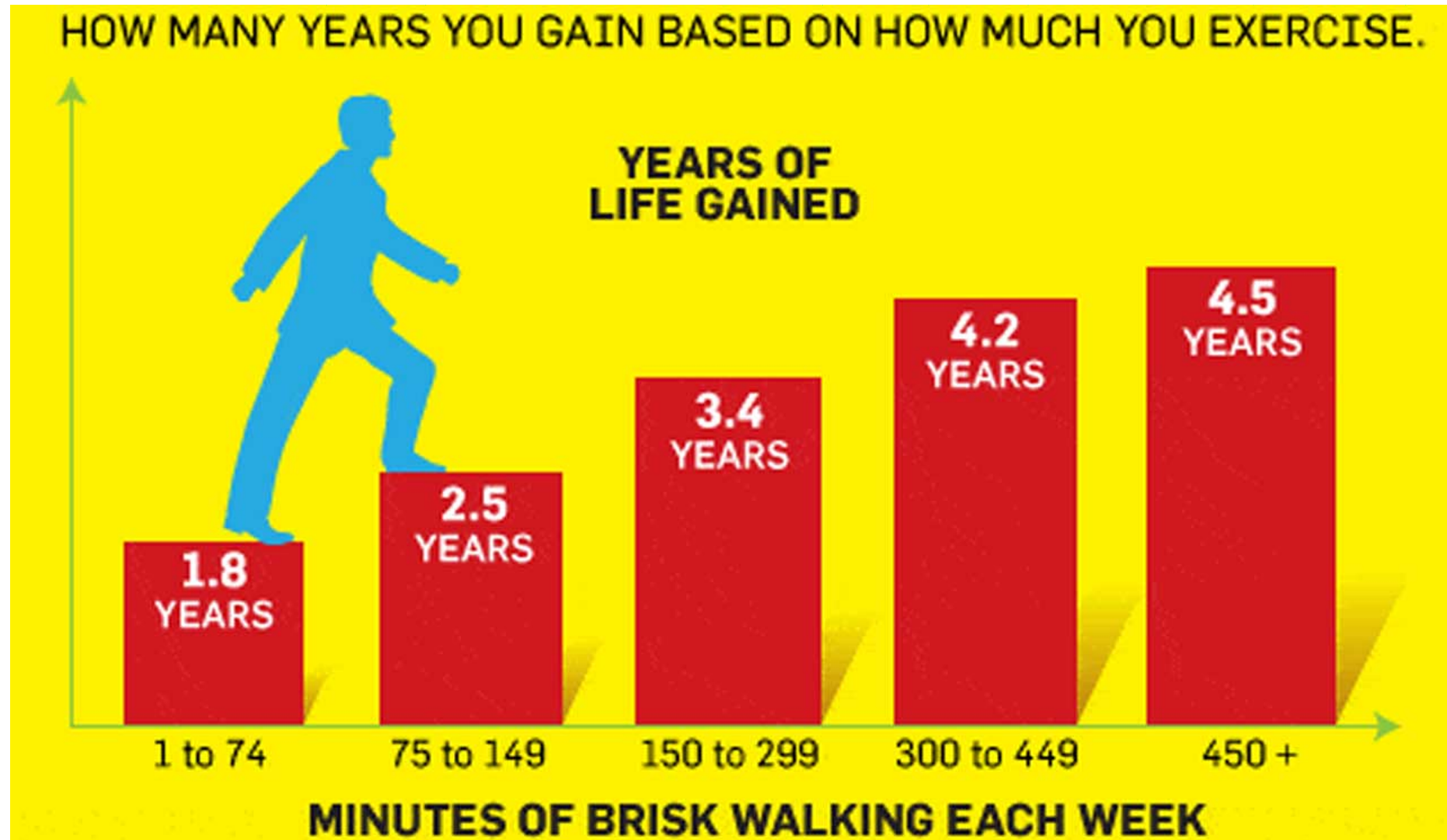
- A varied diet rich in plants, lean protein, good fats is the foundation of health.
- Vitamin D – possibly
- Calcium: 700 -1,000 mg daily
- Vitamin E, high dose Vitamin C, beta carotene, and folate no clear benefit
  - Folate is important for women who are pregnant or may become pregnant.



- Check with your doctor. . .
- Then go for it! At least 30 minutes of moderate activity *MOST* days of the week.
- Some is better than none.
- More is better than less.
- Strength training has a BIG role.

Move It or Lose It!



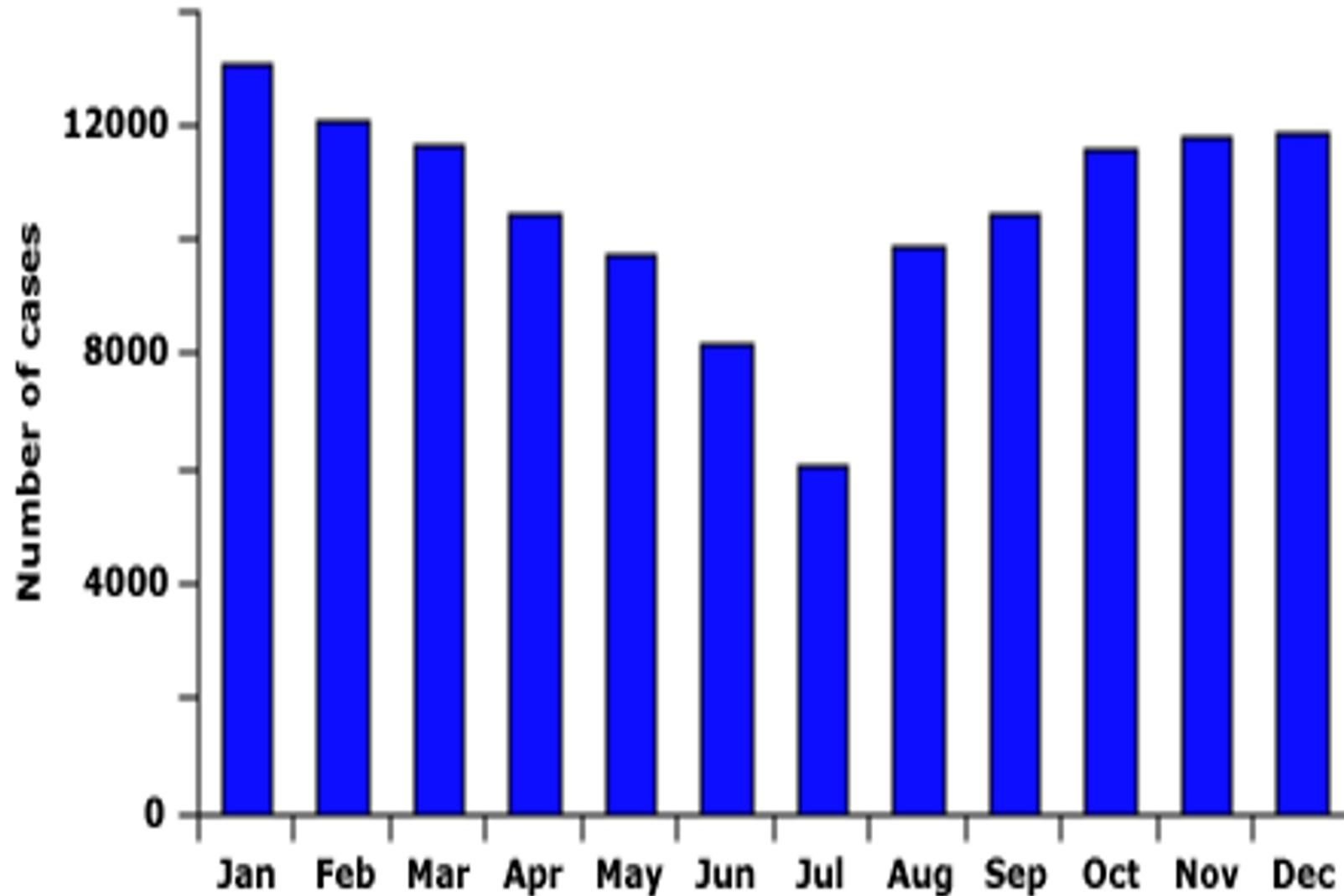


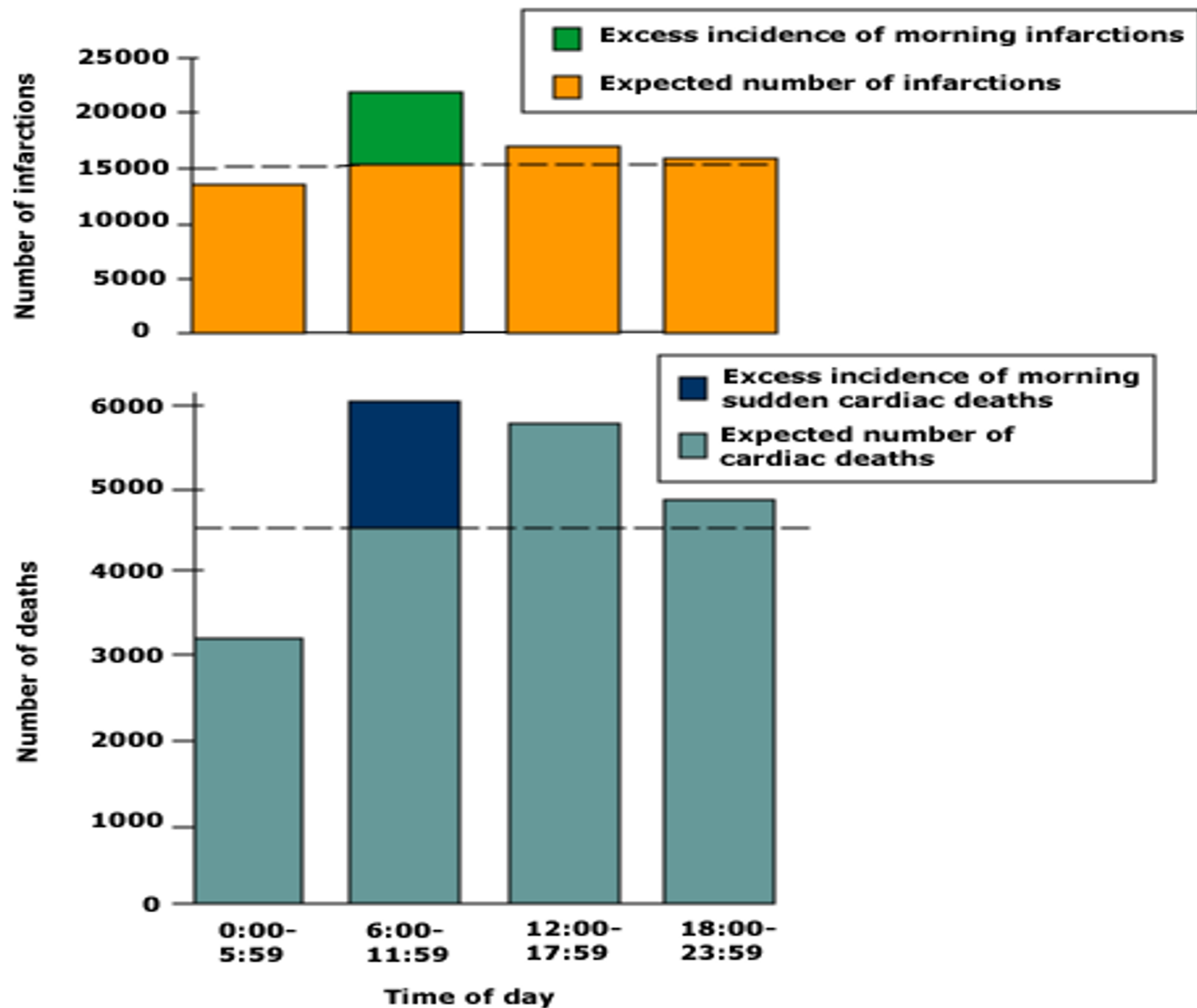
- Sleep quality affects ALL aspects of health.
- Less than 7-8 hours/night increases heart disease risk.
- Poor sleepers tend to gain weight and have worse physical/mental performance, more inflammation, and increased risk of depression.

**Less Stress = Big Plus**



# Heart attacks are less frequent in the summer.





# Visit Your Dentist





And your heart will  
be happy!





- Change the connotation of *habit*
- Do something because you feel better short term  
AND there are long term benefits
- More fun with friends
- Good for heart = good for overall health

# POWER 9<sup>®</sup>

Nine healthy lifestyle habits shared by people who've lived the longest.



# For Some People Prevention Includes:

- Statins and other cholesterol medications
- Blood pressure medications
- Diabetes medications
- Aspirin
  - High risk: 81 mg daily
  - Low risk: over age 65/55 consider aspirin if low bleeding risk

# If You Have Heart Disease

- Keep working on your risk factors!
  - Lifestyle change is as important as medications
- Regular follow up with your doctor
- Cardiac rehabilitation programs -- great confidence builders

- **Your primary health care professional**
- American Heart Association website: **[www.americanheart.org](http://www.americanheart.org)**
- **Younger Next Year** by Henry Lodge, MD, and Chris Crowley
- **Eat to Live** by Joel Furhman, MD
- #800 gram challenge: **<https://optimizemenutrition.com/>**
- Blue Zone article:  
**<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6125071/>**