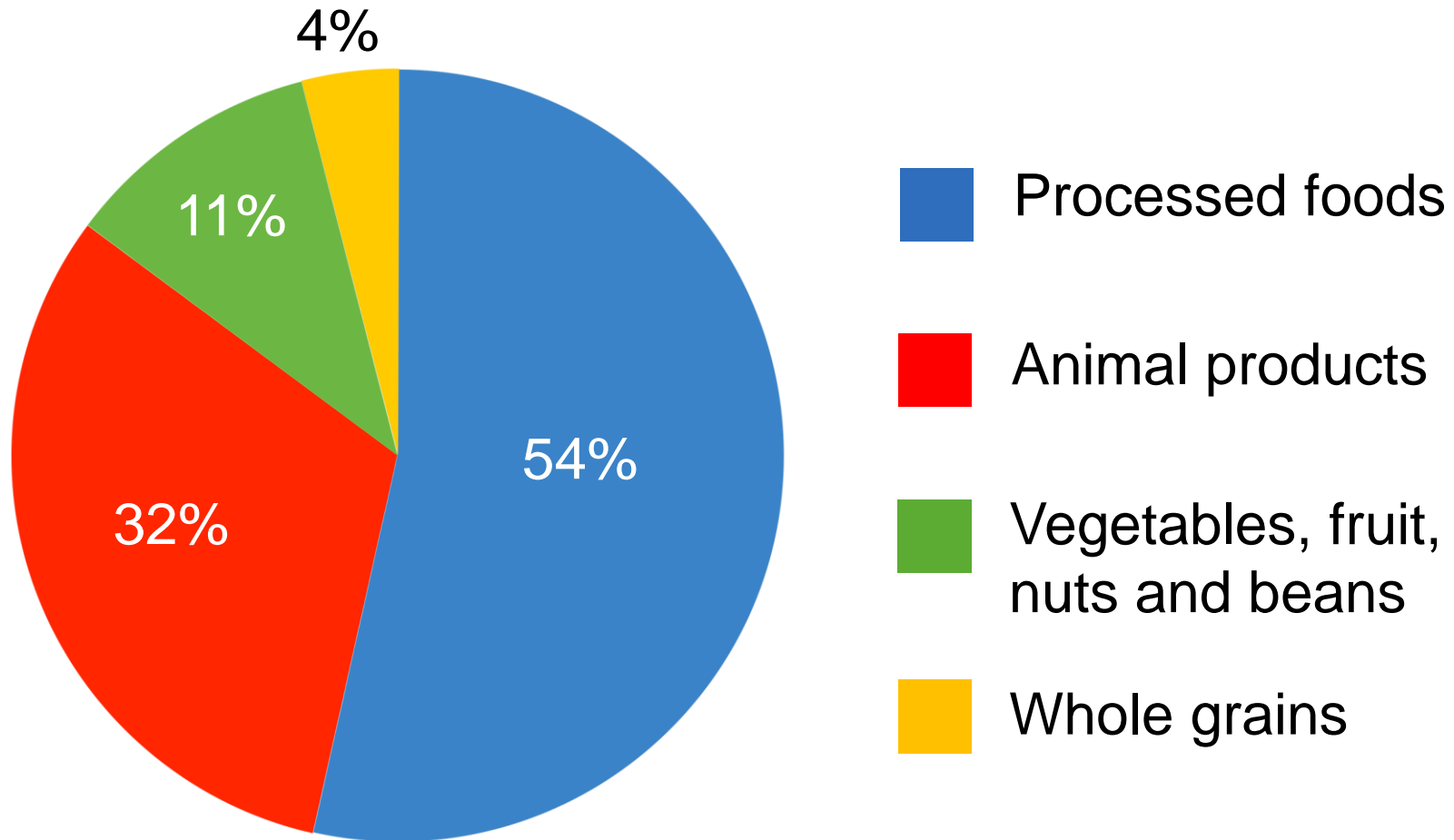


Eating for Optimal Weight and Health

Joel Fuhrman, M.D.

The Standard American Diet (SAD)



Source: Economic Research Service, United States Department of Agriculture: Loss-Adjusted Food Availability

Two Types of Nutrients

Macronutrients

protein, carbohydrates and fat

Micronutrients

vitamins, minerals and **phytochemicals**

Dr. Fuhrman's Health Equation

$$H = N / C$$

Health Expectancy = **N**utrients / **C**alories

Dr. Fuhrman's ANDI Scores

Kale	1000
------	-------------

Romaine	510
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Broccoli	294
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Tomato	186
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Strawberries	182
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Salmon	34
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White potato	28
--------------	-----------

Chicken breast	24
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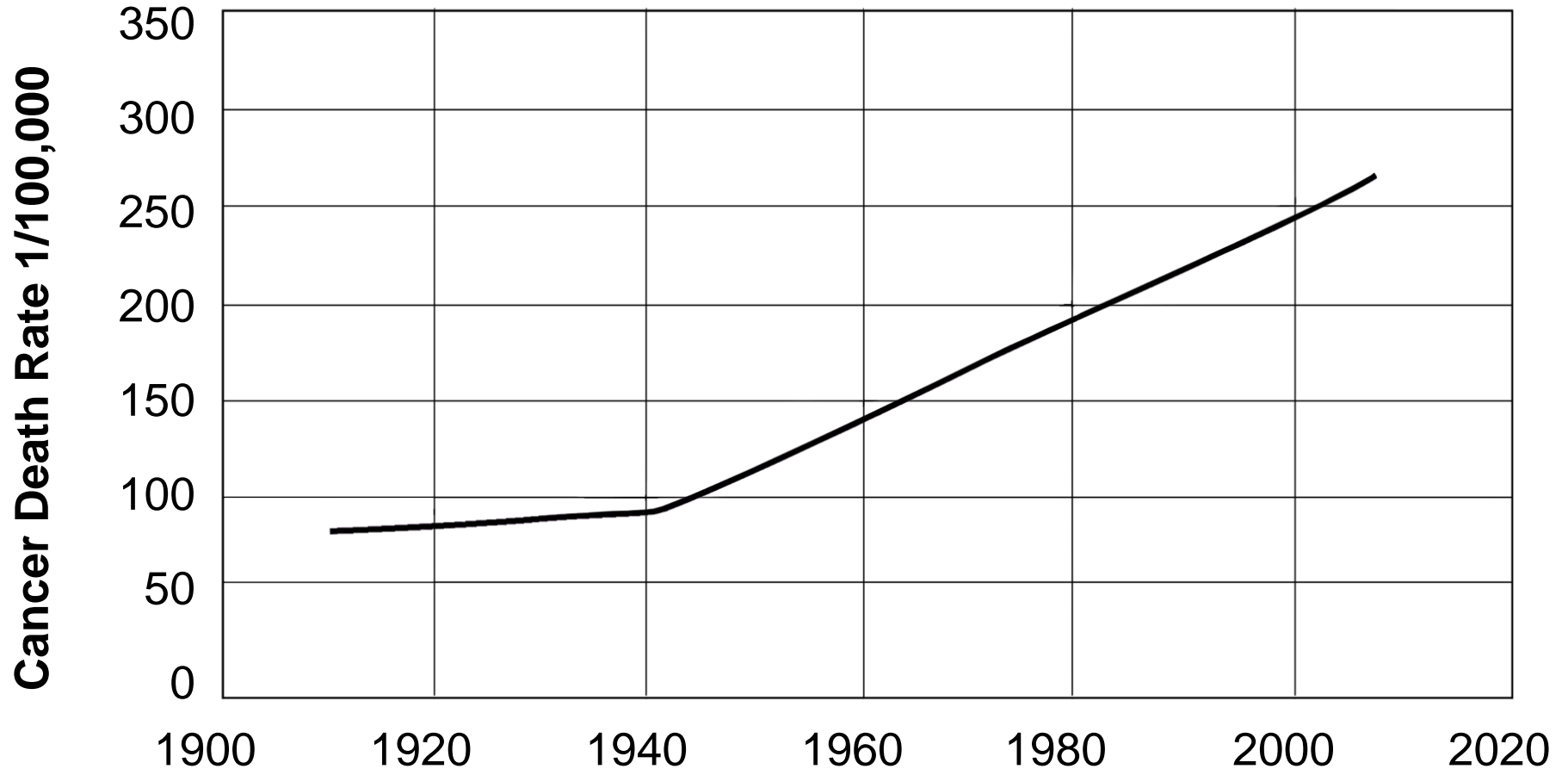
White bread	17
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White pasta	16
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Olive oil	10
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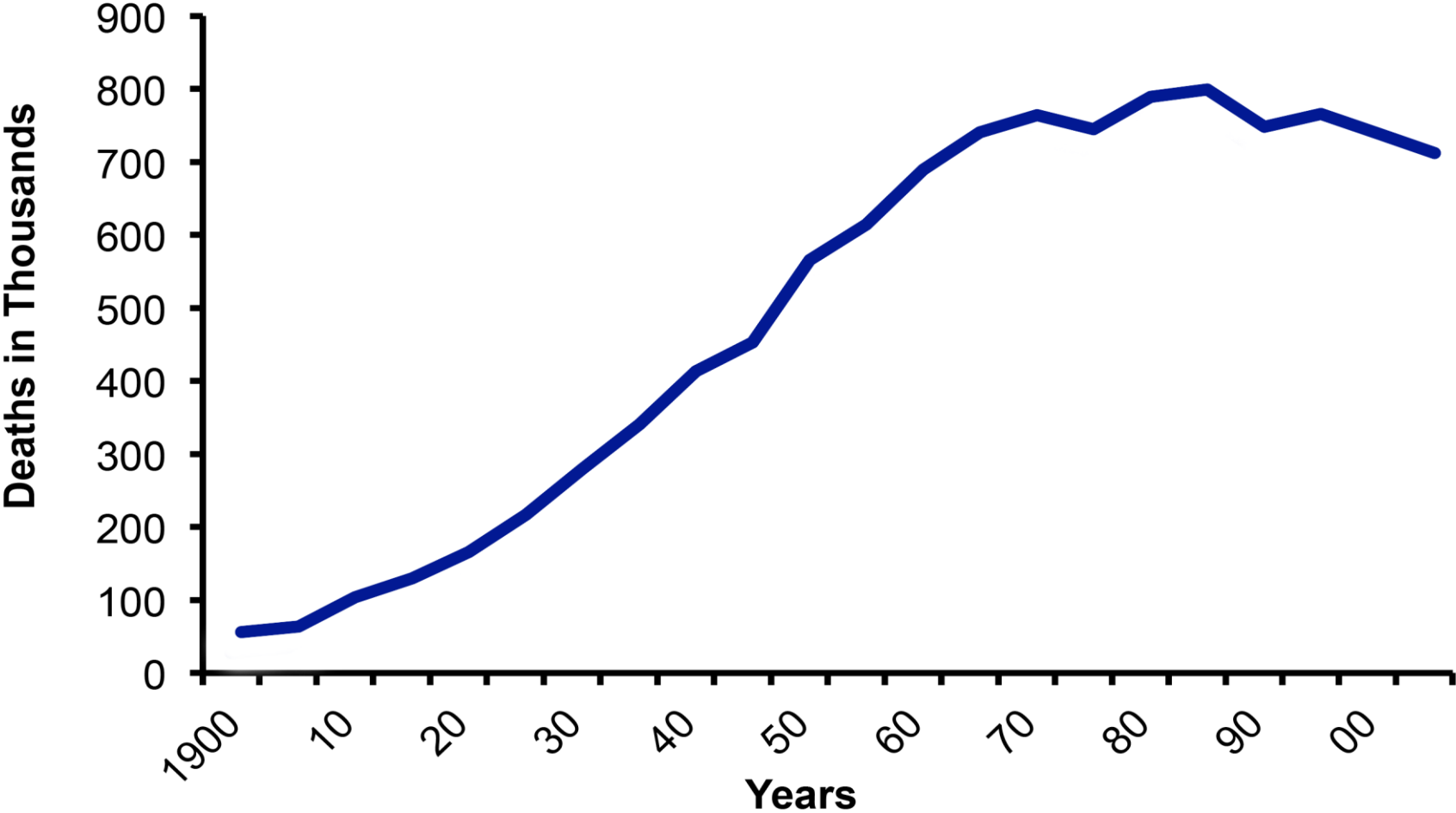


Cancer Mortality in Modern Countries



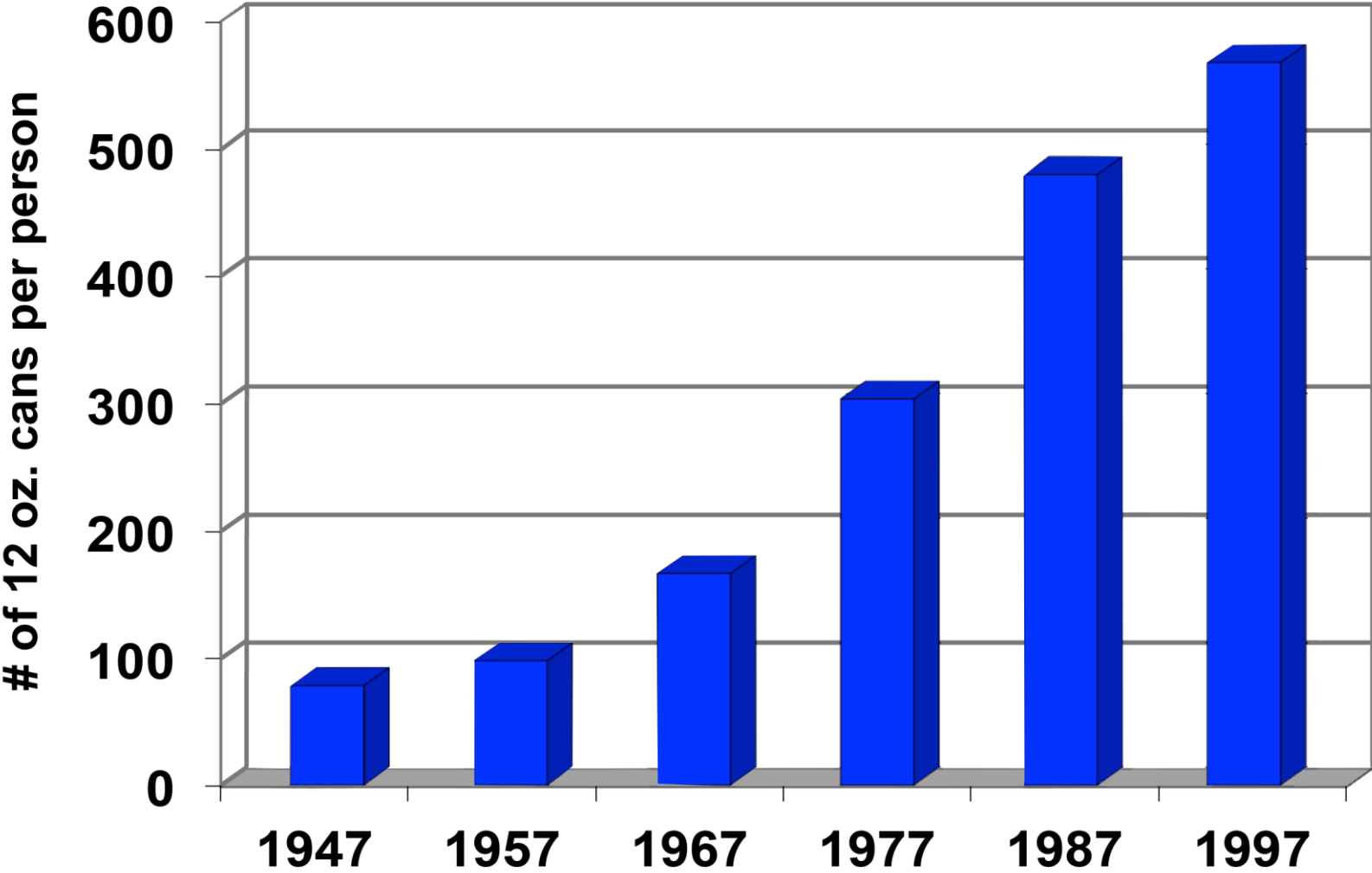
Hallberg, et al. Cancer Trends During the 20th Century. J Austr. Coll Nutr Envir Med

Deaths From Heart Diseases

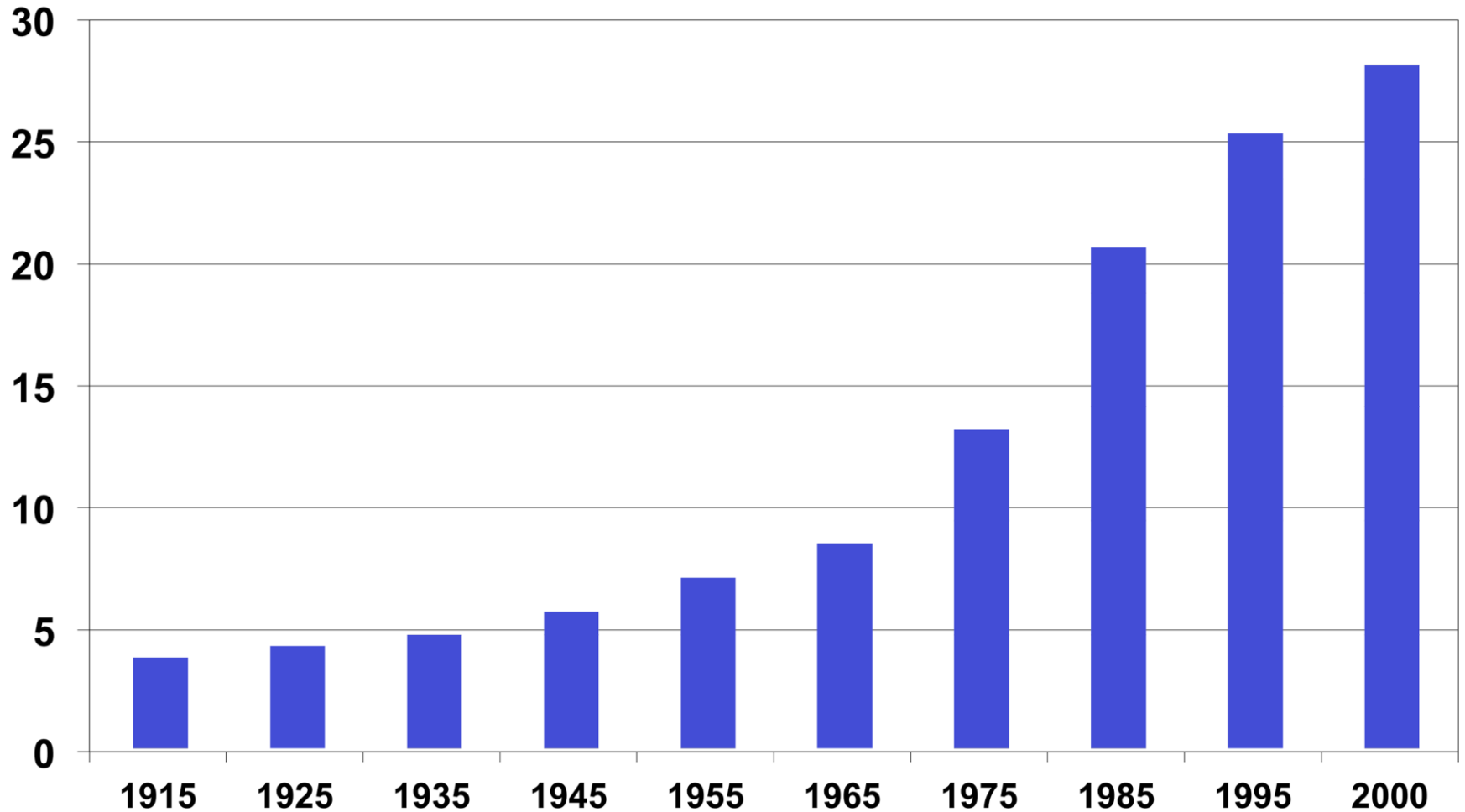


Source: American Heart Association – CDC/NCHS.

Annual Soft Drink Consumption in the U.S.

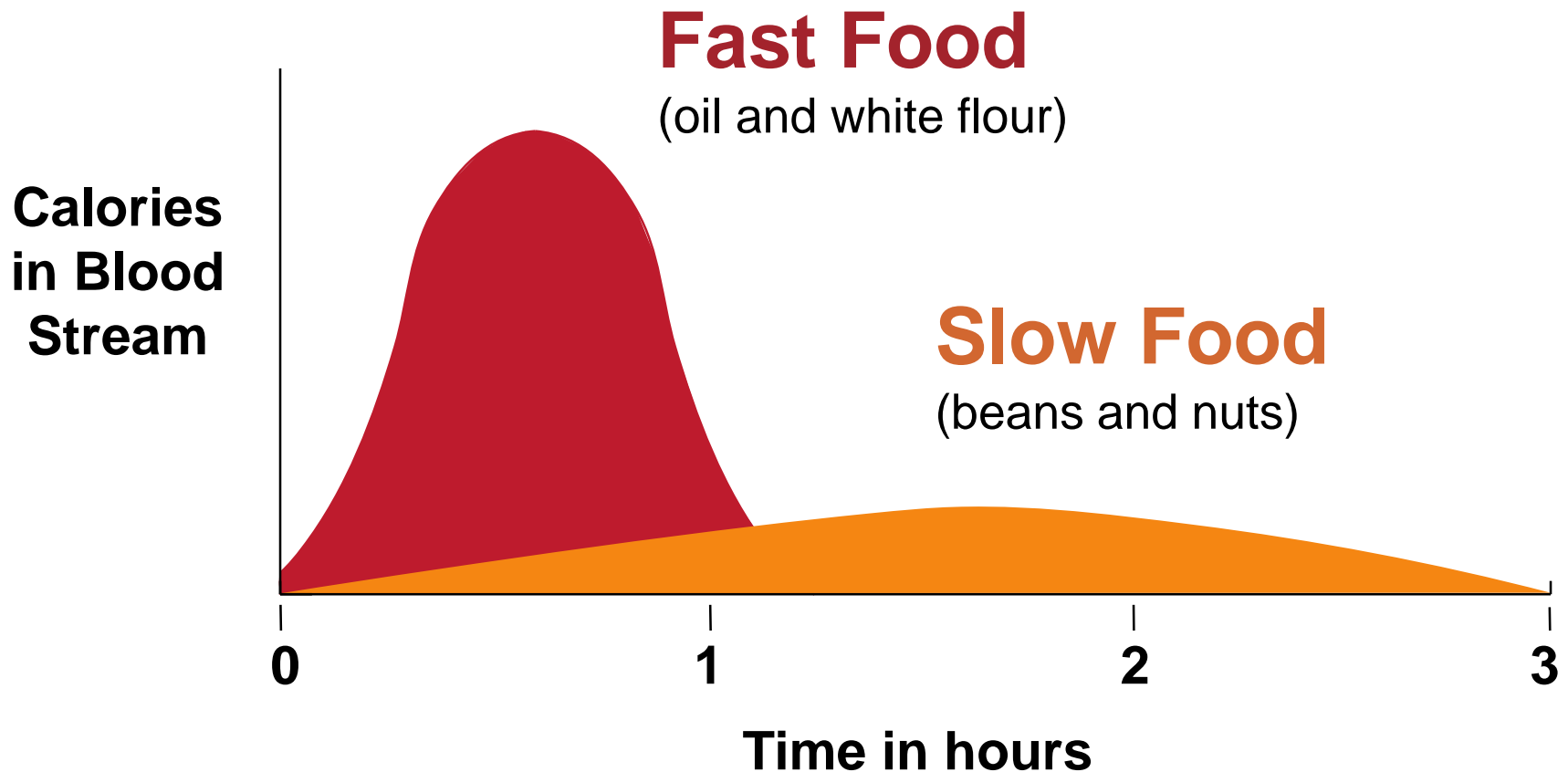


U.S. Per Capita Cheese Consumption 1915-2000



Fast Vs. Slow Food:

Caloric Duration in the Blood Stream



Refined Foods Implicated

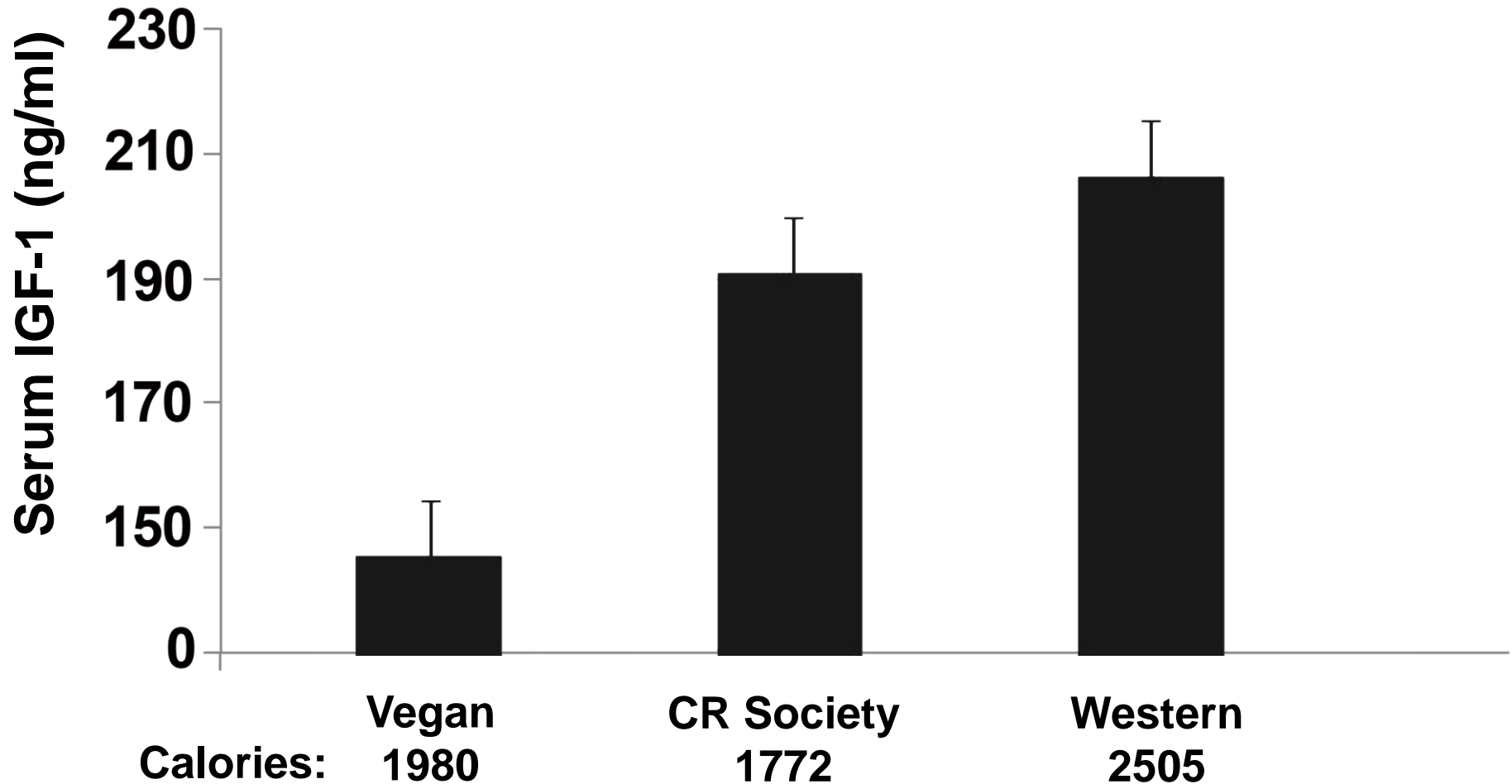
- Heart disease
- Stroke
- Diabetes
- Uterine cancer
- Breast cancer
- Colon cancer
- Prostate cancer
- Stomach cancer

Medium Glycemic Load	Low Glycemic Load	
Corn	Lentils	9
	Apples	9
Brown rice	Kiwi	8
	Green peas	8
Sweet potato	Butternut squash	8
	Kidney beans	7
Grapes	Black beans	6
	Watermelon	6
Rolled oats	Oranges	4
	Cashews	2
Whole wheat	Strawberries	1
Mango		

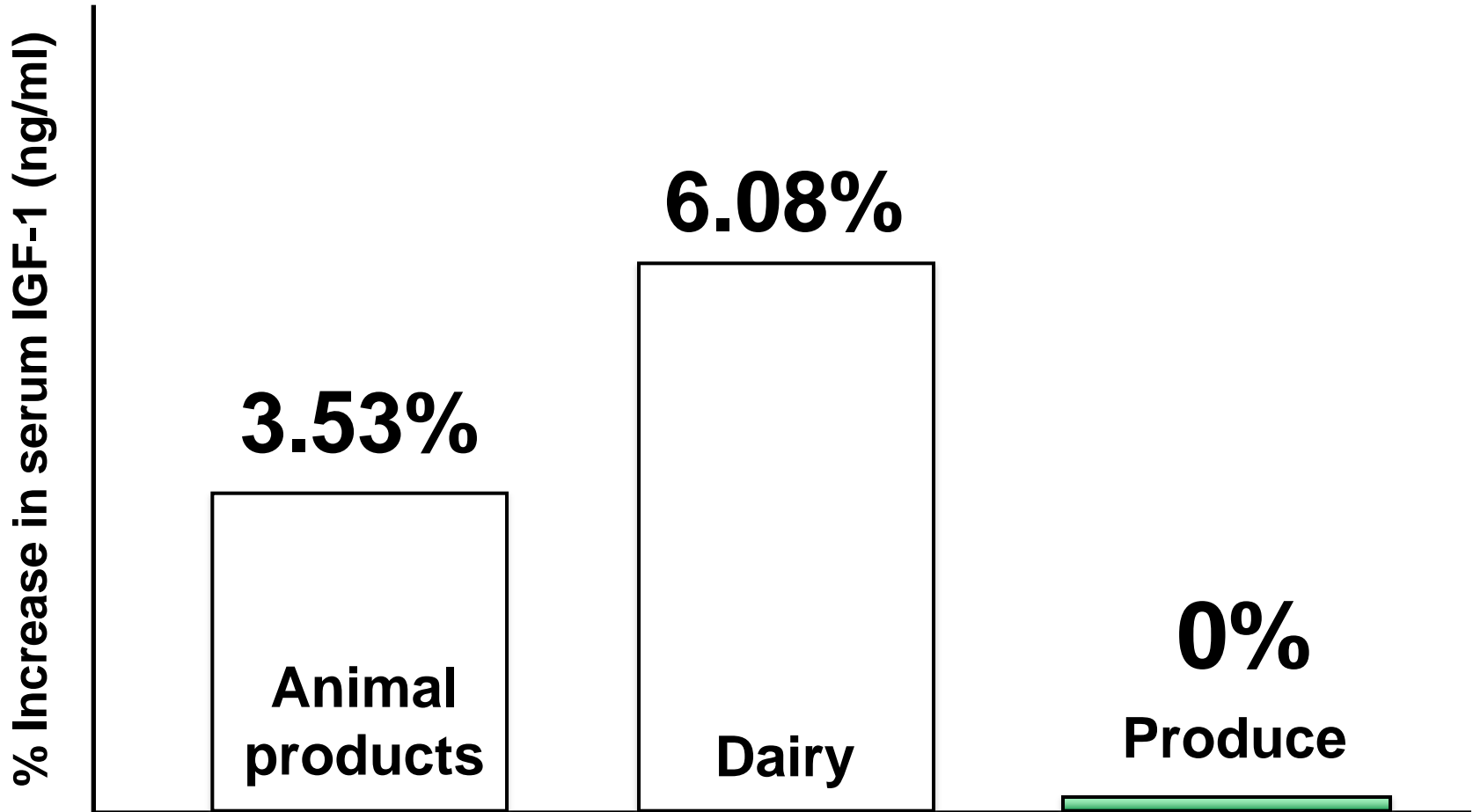
High Protein and Death

- 400% increased risk of cancer
- 75% increased deaths

Calories, Protein and IGF-1

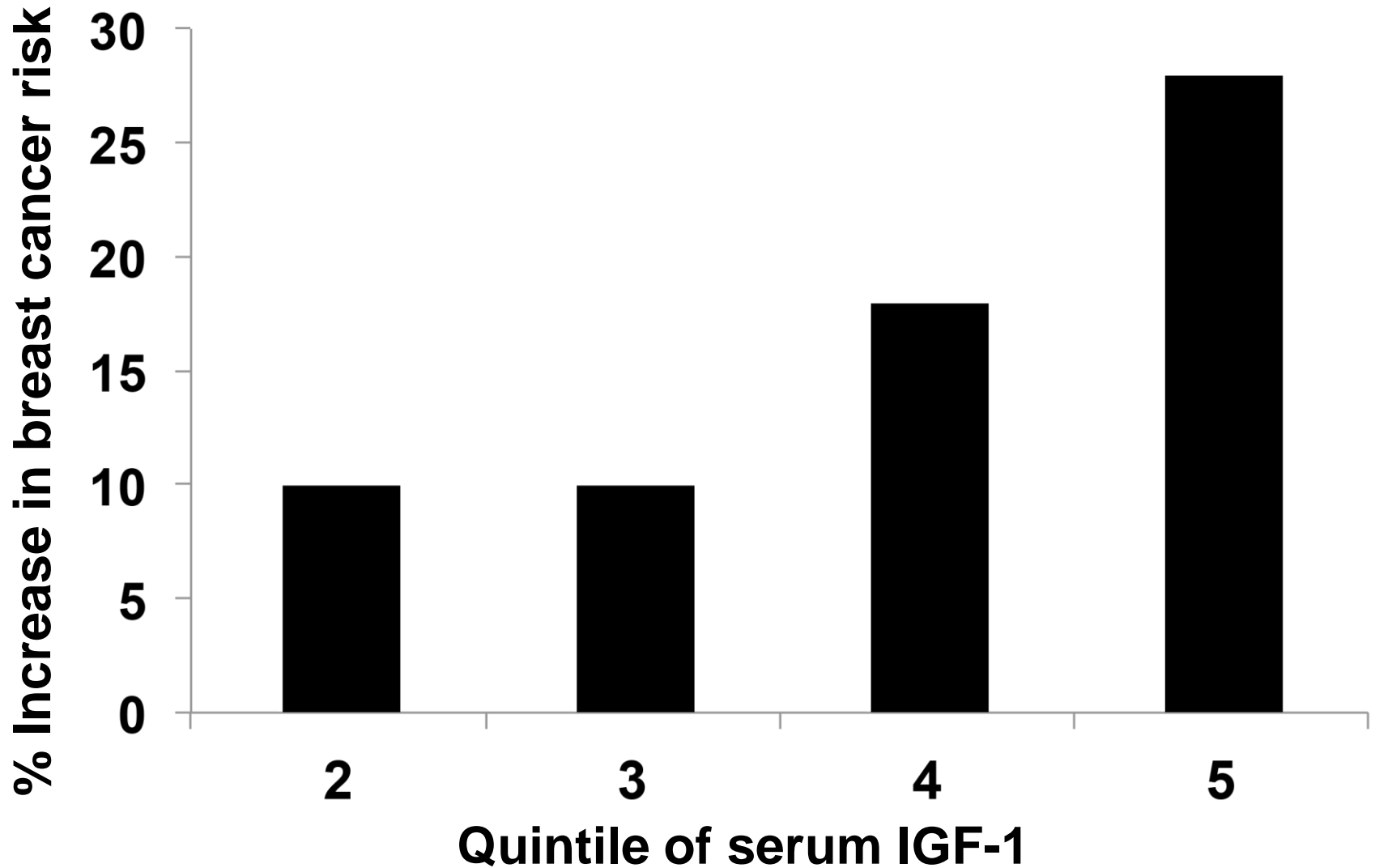


Food and IGF-1

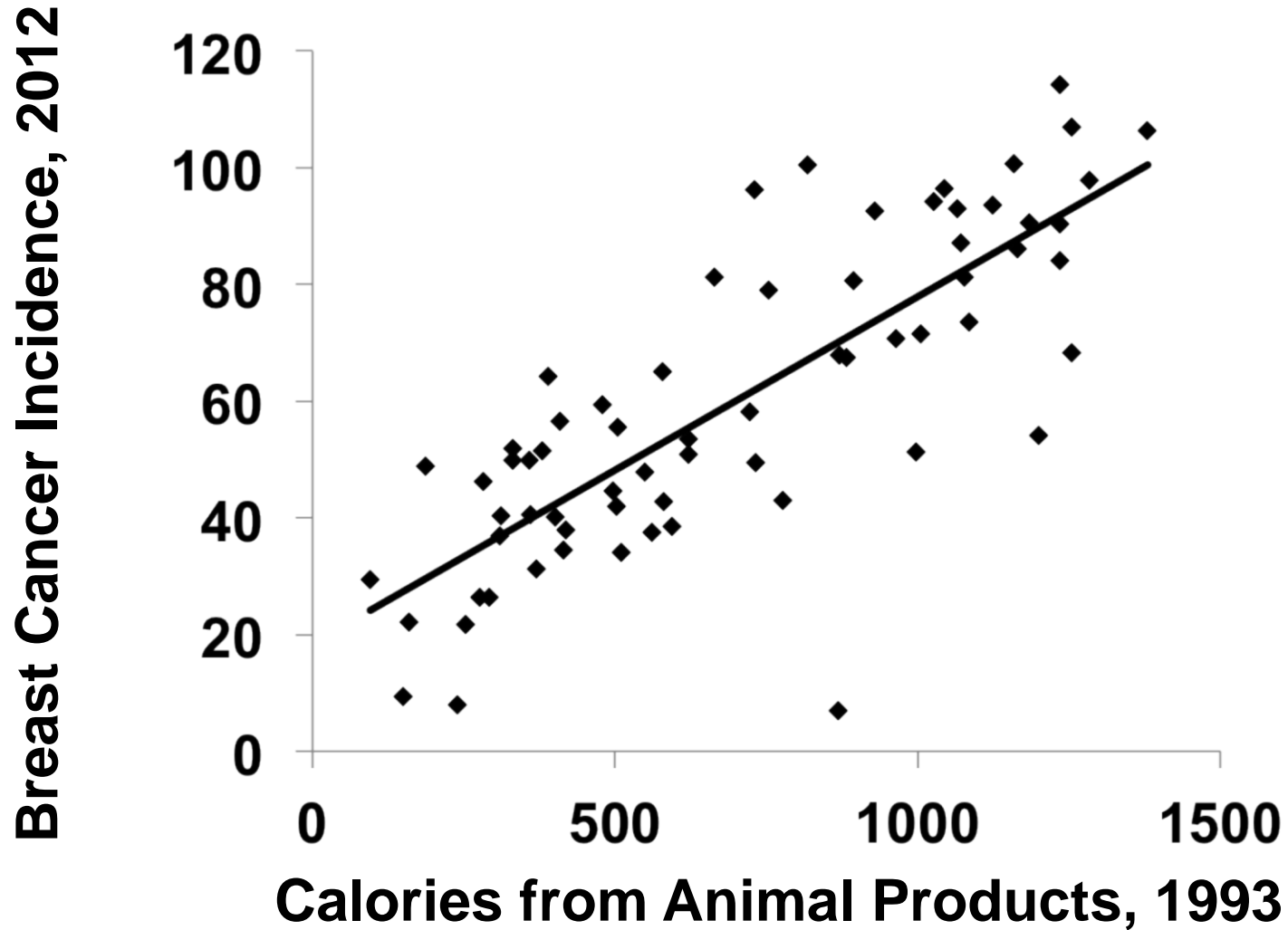


Increase in serum IGF-1 from a 5% increase in calories from animal/dairy protein

IGF-1 and Breast Cancer: Pooled data from 17 prospective studies



Animal Product Consumption: Breast Cancer Rates Years Later



Bowel cancer and diet:

**World Cancer Research Fund
American Institute for Cancer Research**

1000+ studies

**Plant-based diet:
whole grains, fruits, vegetables and beans**

The Standard American Diet is SAD

A Dietary Model to Create Cancer

- High in
 - meat and cheese
 - refined carbohydrates
- Low in
 - vegetables, fruit, beans, nuts, seeds

Protein Content (in grams)

Spinach (frozen, one cup)	7	Kidney beans (one cup)	8
Collards (two cups)	8	Sunflower seeds (half cup)	9
Peas (frozen, one cup)	9	Chickpeas (one cup)	10
Almonds (3 oz.)	10	Lentils (one cup)	10
Broccoli (two cups)	10	Ground beef (4 oz.)	22.8
Tofu (4 oz.)	11	Chicken drumstick	25.4
Sesame seeds (half cup)	12	Whole milk (one cup)	7.7

G-BOMBS



GREENS



BEANS



ONIONS



MUSHROOMS



BERRIES

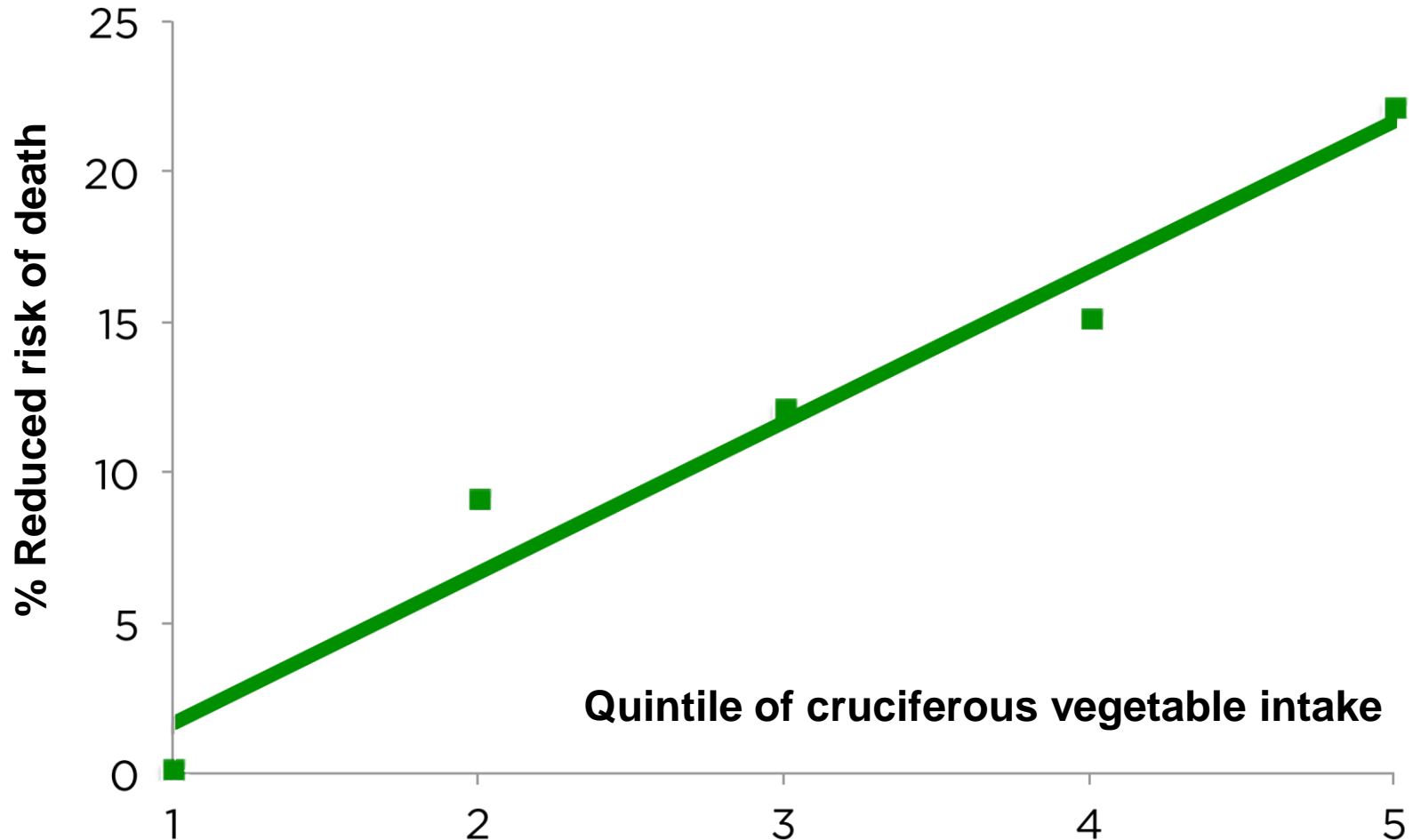


SEEDS

Foods for Permanent Weight Loss
and Optimal Health

Cruciferous Vegetables and Longevity

Study of 134,796 Chinese adults



Cruciferous Vegetables Lower Risk of Cancer

- 50% reduction in breast cancer
- 57% reduction in colon cancer

Beans



Beans and Longevity

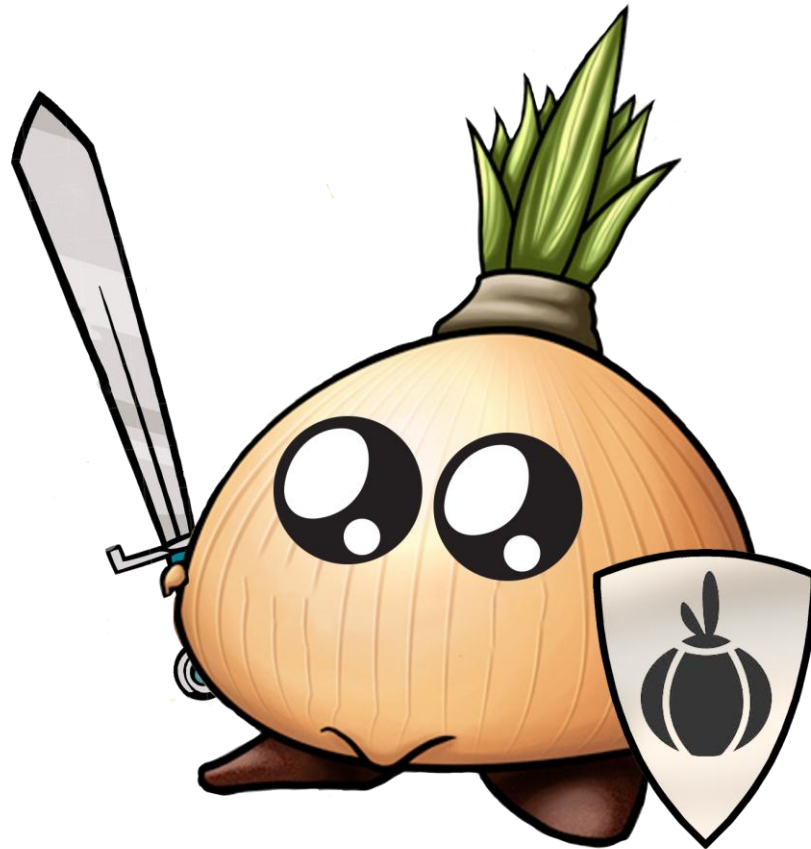
**inositol pentakisphosphate – (IP-5)
→ will not allow tumors to grow**

Beans twice a week, 50% reduction in colon cancer

Beans and Longevity

**8% reduction in death
for each 20 grams (2 tbsp) beans**

Onions



Onions and Cancer

Highest consumers of onions:

- 56% reduction of colon cancer
- 73% reduction of ovarian cancer
- 88% reduction of esophageal cancer
- 71% reduction of prostate cancer
- 50% reduction in stomach cancer

Onions' Beneficial Content

Allinase — Heat Sensitive Enzyme

Sulfides Flavonoids Chromium

Quercetin Fructo-oligosaccharides

Mushrooms



Mushrooms are an Integral Part of the Human Immune System

Angiogenesis Inhibitors

Aromatase Inhibitors

Antigen-Binding Lectins (ABL)

Berries and Pomegranate



Berries and Pomegranate

- **Lower blood pressure**
- **Lower glycemic effect of other foods**
- **Protect the brain**
- **Powerful anti-cancer effects**

Seeds



flax



chia



sesame

Lignans fight cancer

Dietary Lignans Slow Tumor Growth

- After being diagnosed with breast cancer, women ate a control or flax-containing muffin daily (32-39 days)

→ Significant tumor cell death and decreased tumor cell proliferation in flax group

Thompson LU, Chen JM, Li T, et al: Dietary flaxseed alters tumor biological markers in postmenopausal breast cancer. Clin Cancer Res 2005

Lignans Enhance Breast Cancer Survival

Lignans (mg/day)	% Risk reduction
0 – 0.155	0
0.155-0.227	6%
0.227-0.318	49%
> 0.318	71%

One tablespoon of flaxseed = 21.4 mg lignans!

Tomatoes

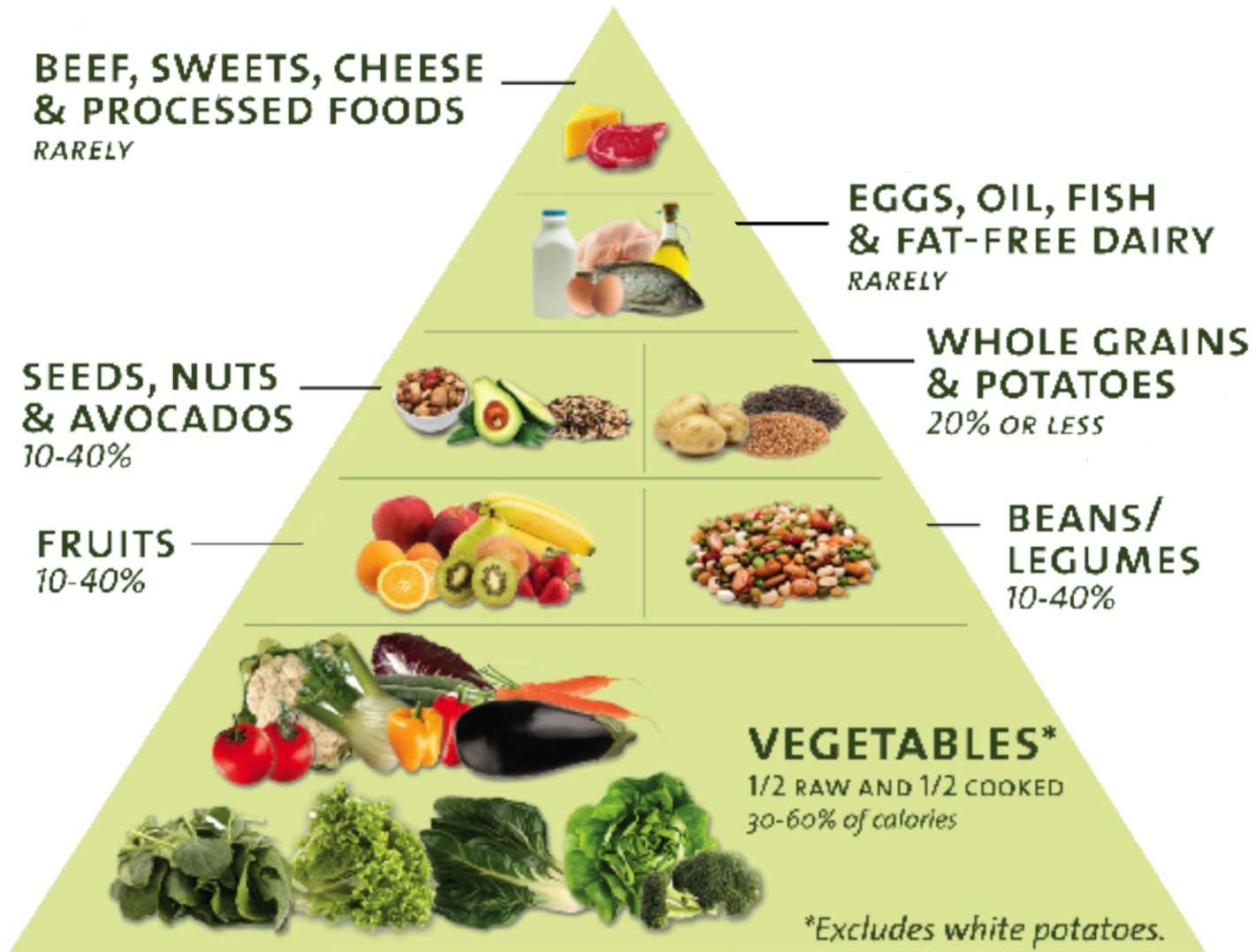


Tomatoes Reduce Prostate Cancer, Cooked Tomatoes Protect Even More

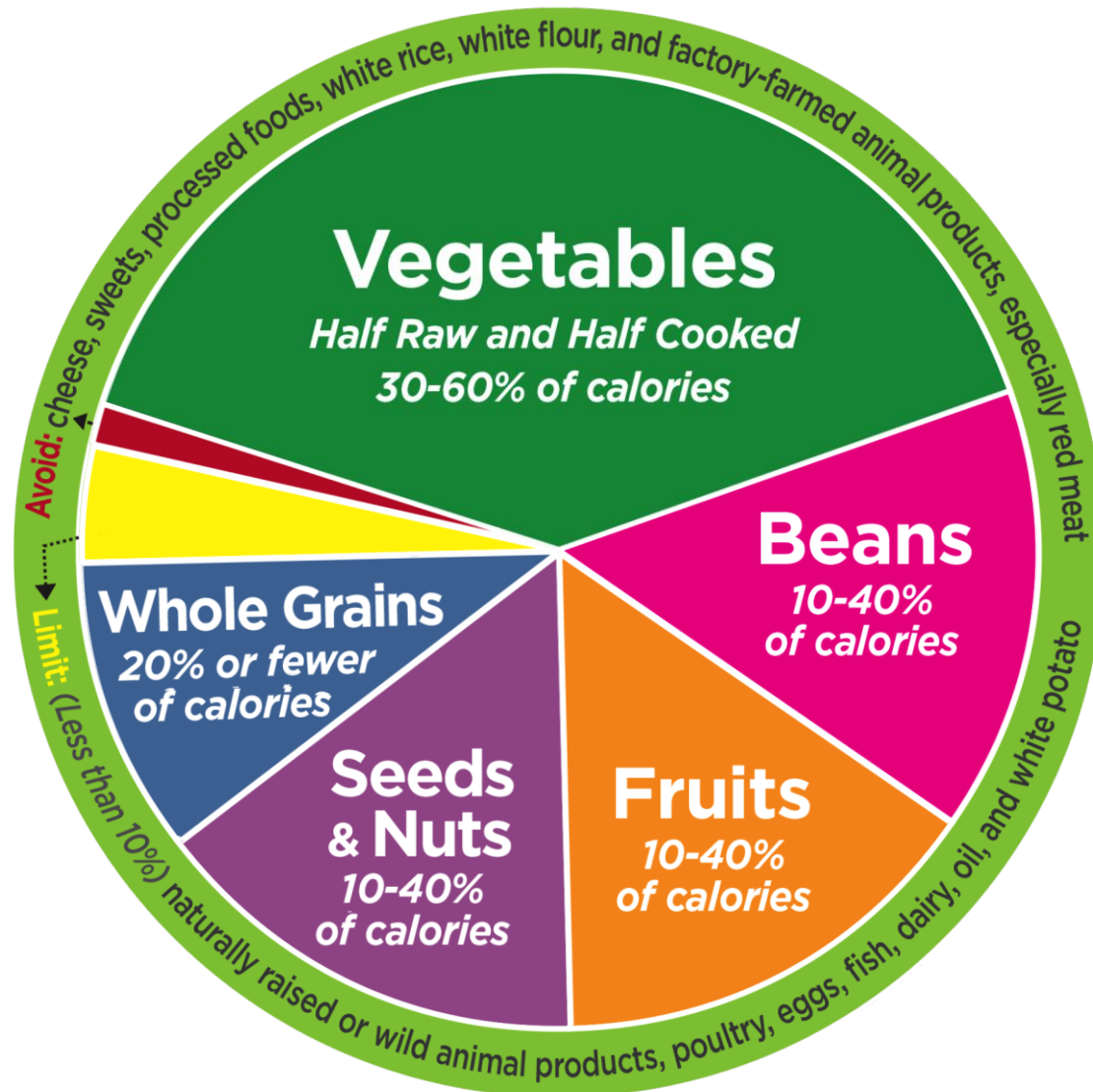
- Lycopene reduces risk of
 - pancreatic cancer
 - colorectal cancer
 - breast cancer
 - lung cancer
- 50% reduction in prostate cancer

Giovanucci E, et al. A prospective study of tomato products, lycopene, and prostate cancer risk.
J Natl Cancer Inst 2002

Dr. Fuhrman's Nutritarian Food Pyramid



Dr. Fuhrman's Nutritarian Food Plate



Nutritarian vs. Standard Diet

Nutritarian Diet

- Vegetable-based
- Lots of fruit, beans, seeds, nuts
- Oil used sparingly
- Animal products 0-3 times a week
- Nutrient-dense calories

Standard Diet

- Grain based
- Lots of dairy and meat
- Oils = major caloric load
- Animal products 2-4 times a day
- Nutrient-poor calories

More Greens, More Beans, More Nuts and Seeds

means

**dramatic lowering of glycemic load
and diabetic and cardiovascular
parameters**

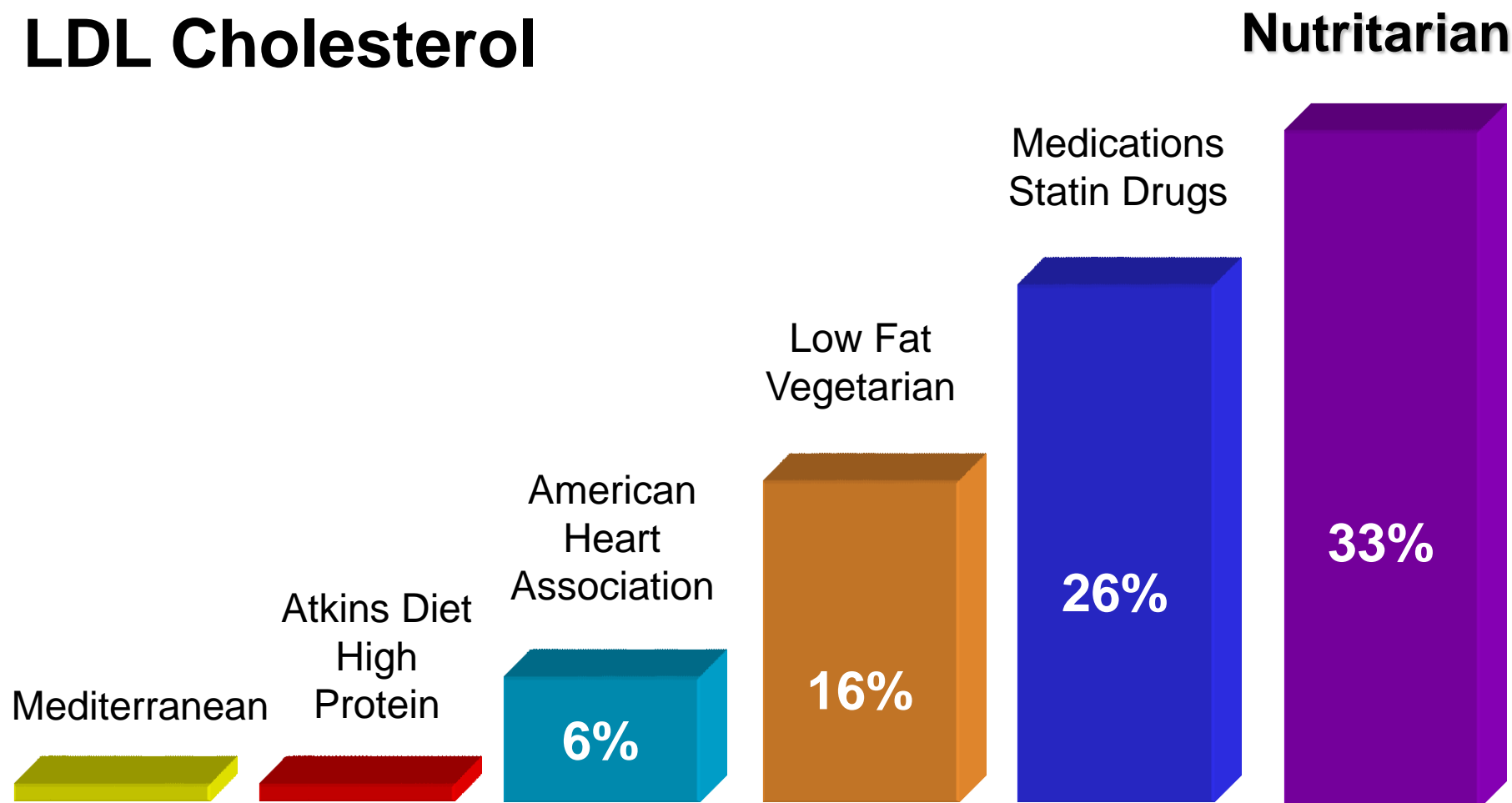
Jenkins DJ, et al. Nuts as a replacement for carbohydrate in the diabetic diet. Diabetes Care 34:2011

Diabetes Study on a Nutritarian Diet

	Before	After
# on diabetes meds.	10	1
BMI	34.4	26.8
HbA1C	8.15%	5.80%
Systolic blood pressure	148	121
Triglycerides	170.6	103.4

Effectiveness of Cholesterol Lowering Methods

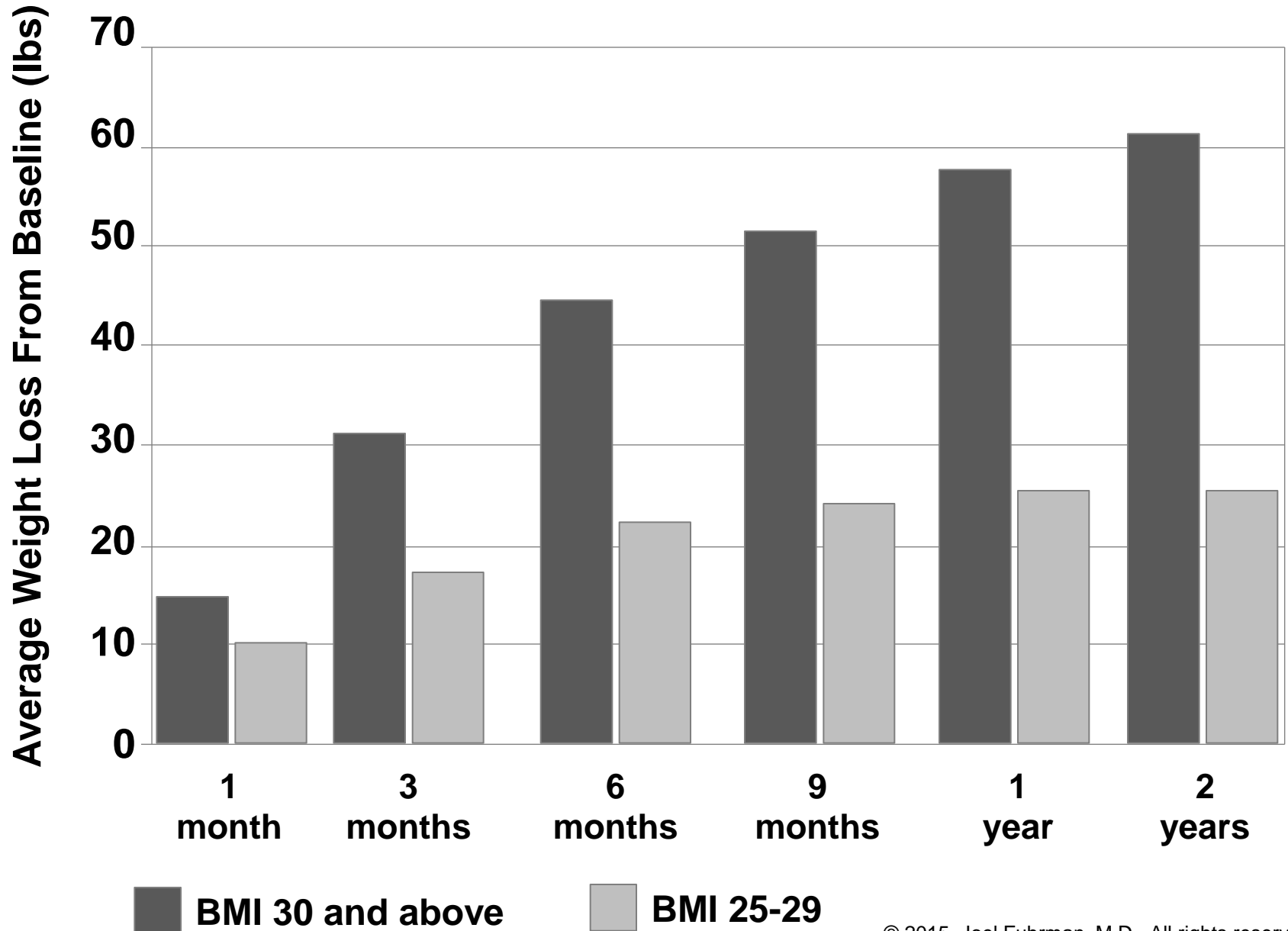
% Decrease of LDL Cholesterol



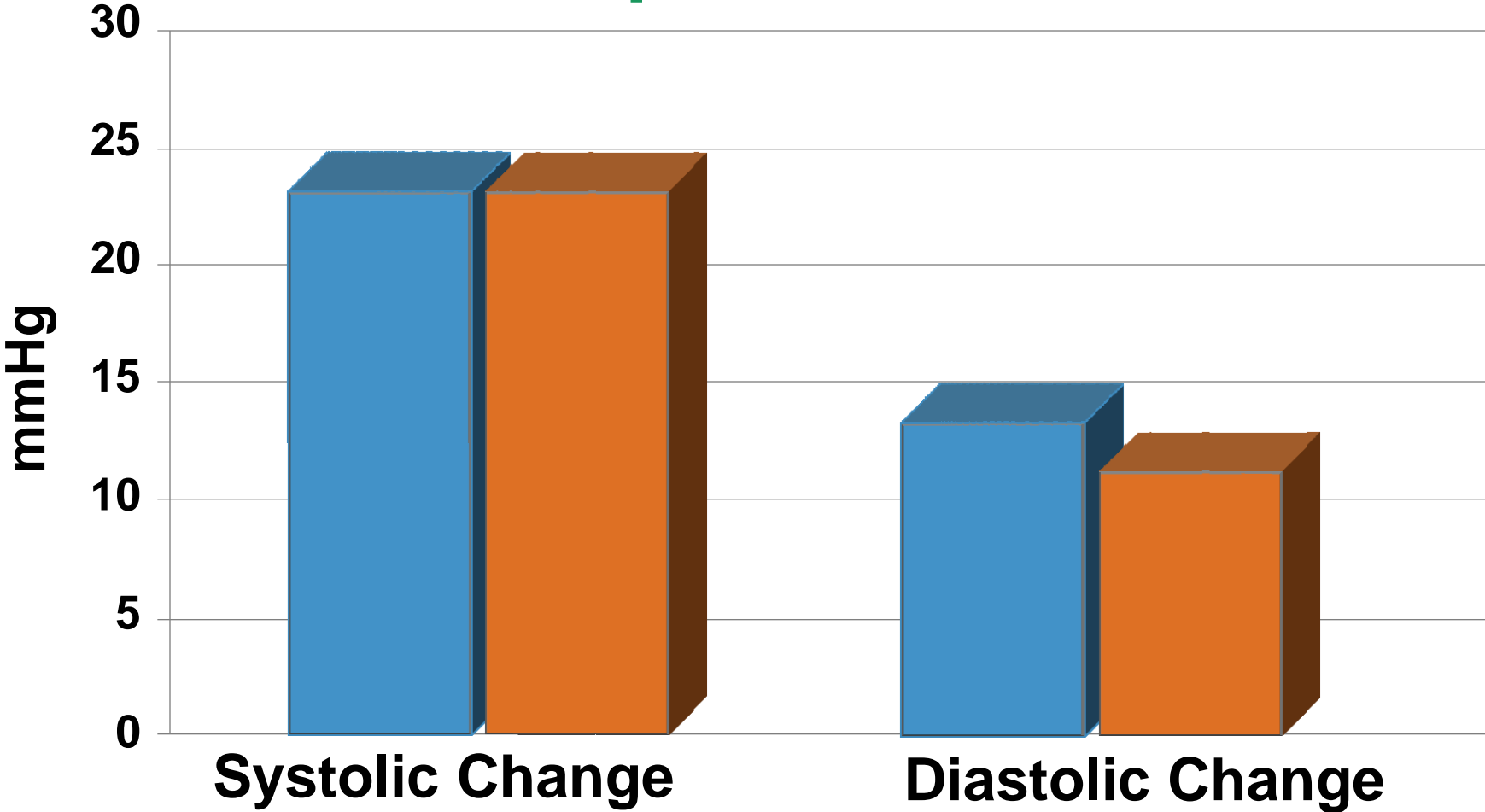
Patient Results – after 6 weeks

	Total Cholesterol		LDL	
	<i>Before</i>	<i>After</i>	<i>Before</i>	<i>After</i>
Peggy	249	150	157	80
Eugene	247	156	191	104
Keith	237	158	152	99
Maria	283	168	183	98

Average Weight Loss, 90% Adherence



Average BP Change and Dietary Compliance n=105



■ >90% Compliant (N=56) ■ >80% But <90% Compliant (N=49)

*“I lost **105 lbs** and went from a ‘cardiac cripple’ to a healthy, happy human being.”*



Julia, 10 years later

Could not walk one block

Before

- 3 heart attacks in 3 months
- 5 angioplasties in 3 years
- 225 lbs
- 10 medications
- Could barely walk
- Never liked vegetables

Now

- Conquered toxic cravings
- Weighs 120 lbs
- Off medications
- Walks 3 miles everyday
- Able to enjoy natural flavors of food
- Kale is favorite vegetable

“I enjoy every day of my life now. I exercise. I garden. I cook. I do everything that I couldn’t do for more than 10 years of my life. I look healthy. I feel healthy. It’s good health from within. It’s wonderful. I’m having a love affair with Dr. Fuhrman’s nutritarian diet. You have to just do it. Keep your eyes on the prize.”

Ronnie Lost 140 lbs. in 12 Months!

“I would not want anyone to go through what I have had to endure in my struggle before I learned about Dr. Fuhrman. DON'T WAIT until you have a medical tragedy happen to you! Start your new life today!!!”



	July 2008	July 2009
Weight	300 lbs	160 lbs
Blood pressure	161/110 (on meds)	115/70 (no meds)
Waist	58"	33"
Cholesterol	228 (on meds)	132 (no meds)
Triglycerides	312	63
LDL	148	75

Control Your Health Destiny



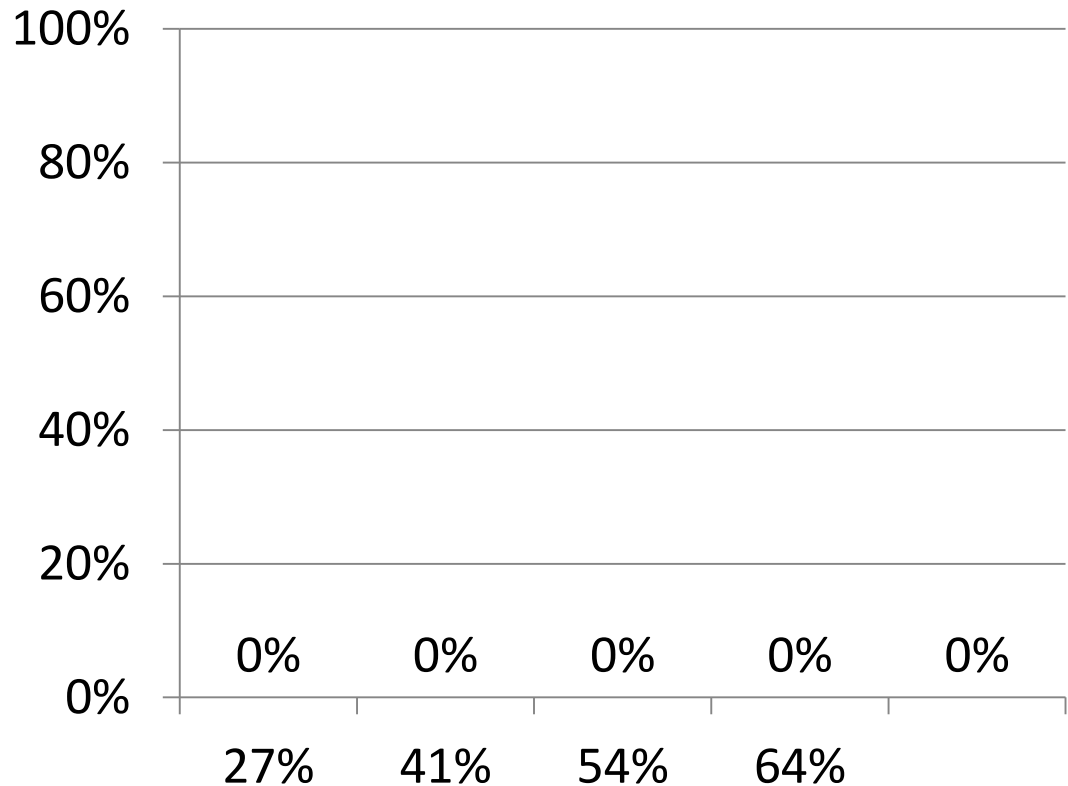
DrFuhrman.com
NutritionalResearch.org

Question 1



What percentage of calories in the American diet is made up of refined, processed foods?

- 1. 27%
- 2. 41%
- 3. 54%
- 4. 64%



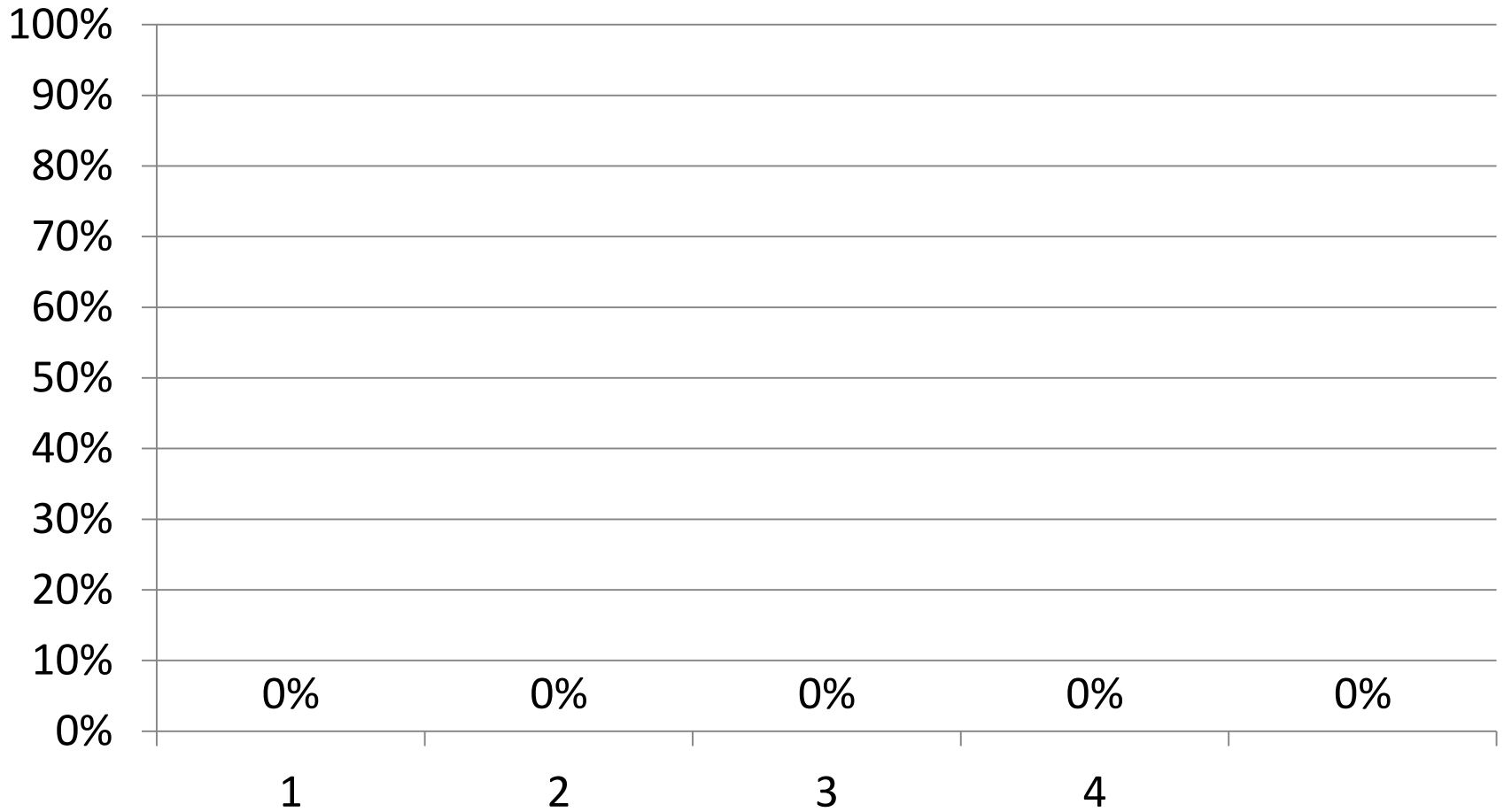
Question 2

10

Name five common foods or food types which have exhibited a dramatic association with lower rates of common cancers.

1. Cruciferous vegetables, yellow/orange vegetables, beans/legumes, poultry, dairy foods
2. Cruciferous vegetables, mushrooms, tomatoes, beans/legumes, berries
3. Cruciferous vegetables, beans/legumes, mushrooms, tomatoes, rice
4. Cruciferous vegetables, whole grains, berries, mushrooms, poultry

Results



Question 3

10

Name the three characteristics of mushrooms associated with their high degree of protection against breast cancer.

1. Aromatase inhibitors, glucosinolates, lignans
2. Angiogenesis inhibitors, antigen-binding lectins, ellagic acid
3. Lignans, ellagic acid, glucosinolates
4. Aromatase inhibitors, angiogenesis inhibitors, antigen-binding lectins

Results

