Lifestyle to Treat Prostate Cancer
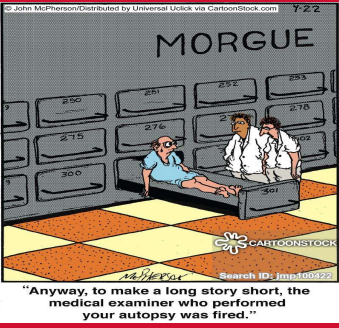### Gabe Mirkin, M.D.

Wednesday, October 5, 2019
Laurel Manor Recreation Center

1

All Men Will Develop Prostate Cancer If They Live Long Enough

Autopsy results of men who died from other causes show that 30 percent over age 50 have had prostate cancer and 50% in their 70s already have the disease

Urol Clin North Am, 1989;16:635–655.

"Anyway, to make a long story short, the medical examiner who performed your autopsy was fired."

2

Evidence that North American men develop prostate cancer

*Autopsies prostate cancer 80% of men in 70s
Int J Cancer, November 15, 1977;20(5):680–8.
*50% of American men will develop prostate cancer by age 60
J Natl Cancer Inst (2013) 105 (14):1050-1058)
*5% of men have it by age 30
Int J Cancer, 2015 Oct 1; 137(7): 1749–1757

Unlike many other cancers, prostate cancer usually grows very slowly and does not kill the vast majority of men who have it.

3

Cause of Death, not Prostate

- **The 15-year survival rate is 96%**
- **Average age at diagnosis is 66, and**
- **Most patients will die from unrelated causes such as a heart attacks or diabetes**

4

Heart Attack Risk Factors

*78% have high cholesterol

*91% have high blood pressure

*35% become diabetic

*40% die of heart attacks

5

Prostate Cancer: Same risk Factors as Diabetes

*high blood sugar, high insulin levels, high cholesterol, (Horm Cancer, April 2016;7(2):75-83).

*Obesity increases risk for dying of prostate cancer Int J Oncol, Mar 2006;28(3):737-45 by raising leptin, interleukin-6 (IL-6), heparin-binding epidermal growth factor-like growth factor (HB-EGF), vascular endothelial growth factor (VEGF) and adiponectin (Int J Oncol, Mar 2006;28(3):737-45

*Fasting sugar over 100 increases risk of death (Prostate Cancer Prostatic Dis, June 2013;16(2):204-8) as does eating sugar and refined carbs Ann Oncol, Jan 2013;24(1):245-51

*Exercise reduces risk for prostate cancer Journal of Urology, November 2009;182(5):2226-2231

6

6

Why American Prostate Cancer Patients Die From Heart Attacks   Circulation, Feb 4, 2016

1)**Radiation** increases risk heart failure, irregular heartbeats & heart attack The Lancet, Nov 12, 2011;378(9804):1707-1716)

2) **Chemotherapy** drugs damage heart

3) Drugs **blocking male hormones**, increase risk for heart attacks JAMA, Sept 22, 2015;314(12):1291

4) **Prostate cancer patients who use heart-attack-preventing program are far less likely to suffer recurrences** Journal of Clinical Oncology, Oct 20, 2012;30:3697-3704

7

7

ABCDEF to prevent prostate cancer recurrence

Aspirin if indicated major heart attack risk

Blood pressure monitoring

Cholesterol management & no **C**igarettes

Diet & **Diabetes** Prevention: eat fruits & vegetables; restrict sugar-added foods & drinks, meat & fried foods

Exercise

Fat loss

8

8

Foods Assoc. with Reduced Risk

*Fruits, vegetables & nuts

*soluble fiber

*Beans, mushrooms and seeds

*The onion family

*Berries

*Tomatoes

*Tea

*Coffee

*Fish

9

Foods: Increased Risk for Prostate Cancer

• Processed meats (salami, bologna, sausage, bacon and hot dogs

• All meats from mammals

• Deep fried foods. Without water, sugar binds to the protein in meat to form AGEs (advanced glycation endproducts

• Controversial: eggs and milk

10

Non-Food Risk Factors for Prostate Cancer

• Being overweight

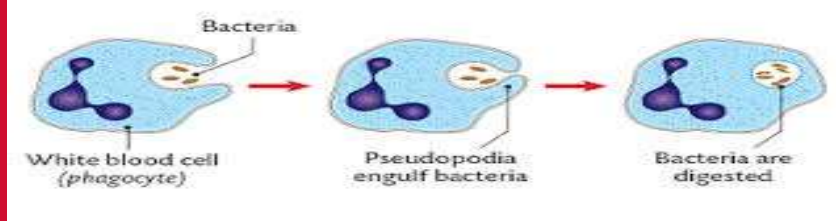• Lack of exercise:

• Smoking

• Alcohol

• Low vitamin D

11

100 Trillion Colon Bacteria

• Saliva	100,000,000,000	(11)
• Stomach	10,000,000	(07)
• Duodenum & Jejunum	10,000,000	(07)
• Ileum	100,000,000,000	(11)
• Colon	100,000,000,000,000	(14)

PLoS Biol. Aug, 2016;14(8):e1002533

12

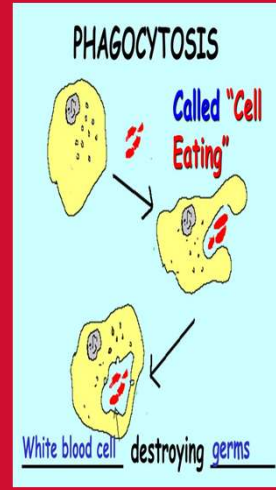## Harmful Colon Bacteria: Inflammation

- Colon bacteria eat what you eat.
- *HEALTHFUL* BACTERIA do not try to enter your colon cells
- *HARMFUL* BACTERIA enter colon cells to turn on your immunity to cause inflammation

Int J Mol Sci. Apr, 2015;16(4):7493–7519

13

13

INFLAMMATION

Your immunity is good because it kills germs, but if it stays on all the time, it uses the same cells & chemicals to attack your genetic DNA to cause cancer

14

INFLAMMATION CAUSES HEART ATTACKS

15

15

Healthful Colon Bacteria

convert soluble fiber in plants to *Short Chain Fatty Acids (Front Cell Infect Microbiol., January 21, 2019) *that increase colon mucous that *prevents harmful bacteria from penetrating colon cells *to turn on your immunity *to cause Inflammation *that increases risk for heart attacks and cancers.
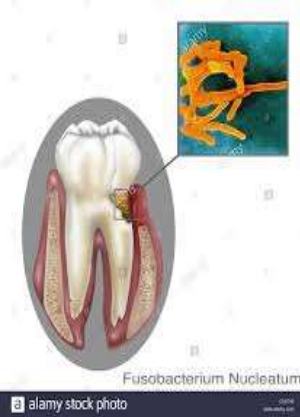
Nature Microbiology. Nov 5, 2018;3:1461–1471
Applied & environmental microbiology 2004;70(10):5810-7

16

Fusobacterium nucleatum

*pro-inflammatory anaerobe

*common dental pathogen

*invades teeth and cells

*associated with colorectal

And other cancers, heart

attacks, dementia, and more

Fusobacterium Nucleatum
alamy stock photo

Current Opinion in Microbiology. Feb, 2015;23:141-147

17

17

Feces from Fat & Normal Monozygotic Human Twins

• Feeding feces from fat twin made germ-free mice FAT.

• Feeding feces from normal-weight twin did NOT CAUSE WEIGHT GAIN

Science. 2013;341(6150):1204-1214

18

18

Anti-inflammatory Diet
1. Unlimited vegetables, fruits, whole grains, beans, nuts & other seeds
2. Some deep water fish
3. Poultry not assoc'd with disease (unless skin or fried)
4. Limit refined carbohydrates (bakery products & pasta particularly if overweight or diabetic).
5. Limit sugared water, sugar-added foods.
6. Limit red meat
7. Avoid partially-hydrogenated fats
8. Avoid burnt fats: Polycyclic Aromatic Hydrocarbons (PAH) and Advanced Glycation End Products (AGE)

19

19

Red Meat Increases Risk:Diabetes & MIs

*DECREASES INSULIN SENSITIVITY

*SUPPLIES CHOLINE AND LECITHIN THAT ARE CONVERTED TO TMAO THAT PUNCHES HOLES IN ARTERIES TO START PLAQUE FORMATION.

38,094 Dutch Followed 10 years

Diabetes Care, January 2010

20

20

People who eat fish twice a week suffer fewer heart attacks than those who eat less. However, no additional benefit has been shown for eating fish more than twice a week.
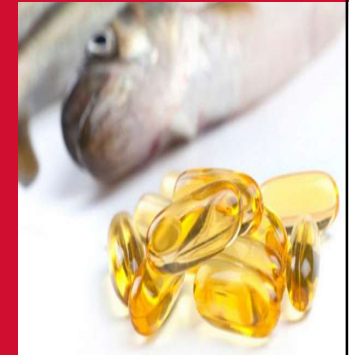
21

Men with the highest blood levels of omega-3 fatty acids

71% increased risk for high-grade prostate cancer

43% increased risk for all prostate cancers

Journal of the National Cancer Institute. July 11, 2013

22

A High Rise In Blood Sugar Damages Every Cell In Your Body

Blood sugar >140 after meals damages cells
Diabetes Care. 2001;24 (8):1448-1453

23

Refined carbohydrates

*Blood sugar rises too high ➡
*Sugar sticks to cell membranes ➡
*Once attached, never detached ➡
*on cell, glucose converted to sorbitol ➡
*Blindness, deafness, MI, stroke, dementia kidney failure, etc.
J Biol Chem. Sep 10, 1978;253(17):5985-9
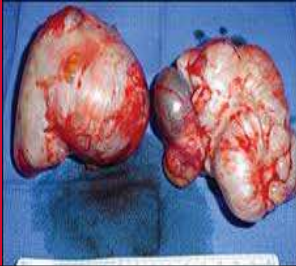
The shocking truth about
sugar
and your **arteries**

24

Public Library of Science Medicine, January 2010

PEOPLE WITH HIGH BLOOD SUGAR LEVELS ARE AT INCREASED RISK FOR CANCERS: prostate, liver, gallbladder, resp. tract, thyroid, rectum pancreas, bladder, uterus, cervix, stomach; and multiple myeloma.

25

American Journal of Clinical Nutrition, April 7, 2010; Archives of Internal Medicine, May 2010

Studies from Denmark & Italy show those who ate the most **FOODS THAT CAUSE HIGH RISES IN BLOOD SUGAR** had more than twice the risk of heart disease than those who ate the least.

26

Health Professionals Study:

All sugar-sweetened beverages are associated with a significantly elevated risk of type 2 Diabetes

American Journal of Clinical Nutrition. March 23, 2011

27

High Glycemic Load Diet

increased death rate by 80% in 7 years, in 1000 men and women with metastatic colon cancer, stage III. Expected 5-year survival less than 50%

J Natl Cancer Inst., November 7, 2012

28

Fruit juice and soft drinks increase diabetes risk by 130%
Arch Intern Med. 2008;168(14):1487-1492.

Fruit: decrease diabetes risk by 80%
Diabetes Care, July 2008

29

Sugared Drinks Cause Highest Rise in Blood Sugar

Fruit juices and sugared soft drinks are not stopped by the pyloric sphincter.
They enter the intestines immediately to cause a rapid rise in blood sugar.

Quart. J. Med. Sept 18, 2015

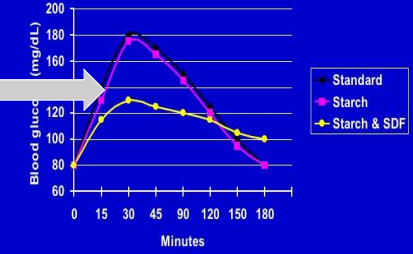**An orange can stay in your stomach for 5 hours**

JAMA. August 25, 2004

30

Sugar in Fruits Safe

- **Intestines: Fruits have soluble fiber, a gel that binds to sugar.**
- **Colon, bacteria ferment soluble fiber to release sugar.**

Blood Glucose Response: Starch+ or - Soluble Dietary Fiber (SDF)

Blood glucose (mg/dL)

Standard
Starch
Starch & SDF

Minutes

31

31

Sugared Drinks Cause *Inflammation, *Abdominal Obesity, *Metabolic Syndrome, *High Triglycerides & *Lowered HDL

ONE DAY TOTAL 93 PACKETS OF SUGAR

*increased C-reactive protein
*increased waist circumference
*decreased HDL cholesterol
Journal of the Academy of Nutrition and Dietetics. Feb 2013;113(2):219-227
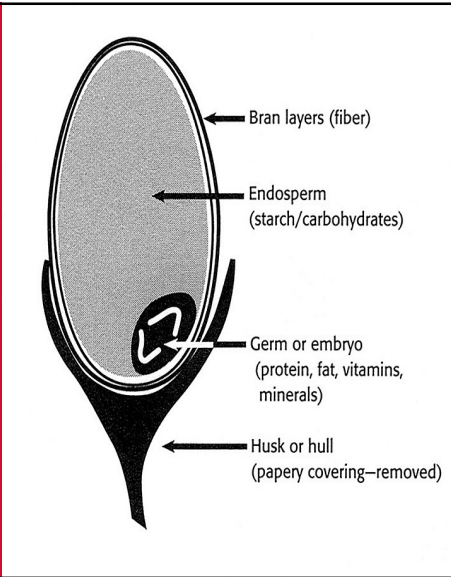
32

32

Whole Grains

prevent diabetes, do not cause a high rise In blood sugar.

Am J of Epidem. 2003:58(3):243-250

Am J of Clin Nutrition 12/12, 2012
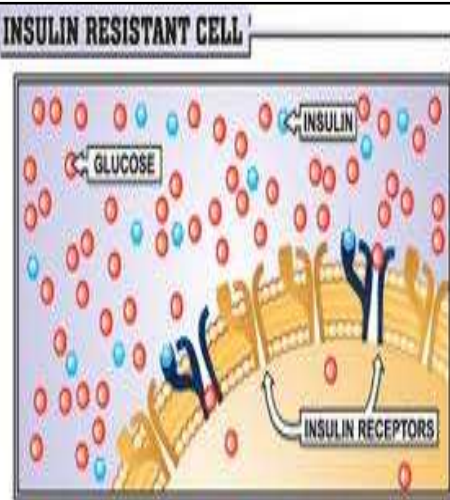
Am Soc for Nutr July, 2013:

33

Grinding & Cooking raise Glycemic Load

- Bran layers (fiber)
- Endosperm (starch/carbohydrates)
- Germ or embryo (protein, fat, vitamins, minerals)
- Husk or hull (papery covering—removed)

34

Whole grains increase insulin sensitivity, help prevent diabetes & myocardial infarctions & lower cholesterol.

American Journal of Clinical Nutrition, 2003;78(5):965-971
Current Opinion in Cardiology, 08/13/2015

INSULIN RESISTANT CELL

GLUCOSE   INSULIN

INSULIN RECEPTORS

35

35

Wheat Belly, Grain Brain & Paleo Diet recommend that you avoid whole grains

NONSENSE: No epidemiological data to show that _unrefined_ wheat causes obesity, diabetes or MI's.

36

NUTS Full Of Fat, But Not Fattening

Fat in almonds **inside** cells.

*In mouth: Most almond cells remain intact after being chewed.

*In upper GI tract: fat is not absorbed.

Am J. Clinical Nutrition. 2015, Jan;101(1):25-33

*In colon: fat is released from cells by Bacterial fermentation and then absorbed.

Am J Clin Nutr. 2004 Sep;80(3):604-13

(Roasting almonds not increase fat absorption)

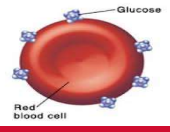Br J Nutr. 2014 Nov 14;112(9):1521-9

37

37

Advanced Glycation End Products

Cooking without water causes sugar to attach to fat, protein, and nucleic acids to form AGEs that can damage every cell in your body. You eat them in food or form them in your body.

For complete review:

http://www.mysticmedicine.com/wp-content/uploads/2012/09/ada_ages_in_food_reduction11.pdf

38

38

AGEs

• INCREASE :Frying, broiling, grilling, and roasting

• REDUCE: boiling, poaching, stewing, steaming and microwaving

39

Weight Control

Eat:

*lots of raw fruits and vegetables.

*foods not cooked, chopped, ground or puffed with air.

*cooked fruits and non-starchy vegetables. They are usually low in calories even when cooked.

*WHOLE grains, beans, seeds and nuts not ground into flour.

Restrict:

*sugared drinks because virtually 100% of calories rapidly absorbed.

*all sugar-added foods.

*foods made from flour such as bakery products and pastas.
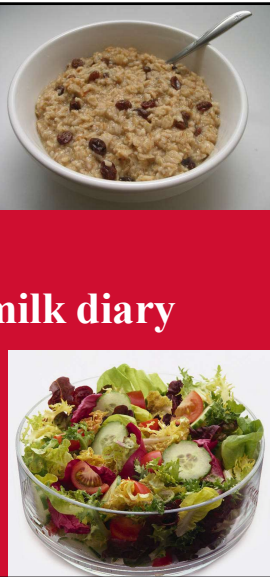
*soft or puffed cereals - including popcorn.

40

40

Rx DIABETES

- **BREAKFAST: Steel-ground oatmeal**
- **LUNCH & SUPPER: Salads**
- **No meat, chicken (?), whole-milk diary products, pastas or bakery products, sugar-added foods and drinks & prepared foods with partially hydrogenated fats**

41

HEART ATTACK WARNING SIGNS

- BP>120/80
- LDL> 100
- HBA1C>6
- CRP>1
- ABD. OBESITY
- Lp(a)> 125
- Triglyc >150
- HDL<40
- Homocys>10
- Small Particle size

Copyright 2003 by Randy Glasbergen.
www.glasbergen.com

"I'm taking better care of my heart. I've started using aspirin as one of my pizza toppings."

42

42

*Almost all people with small hips and big bellies have high blood sugar levels. A fatty liver prevents liver from accepting sugar from blood.
*Mediterranean Diet cures fatty liver.

Review article: Current Opinion in Lipidology, 01/06/2015

43

43

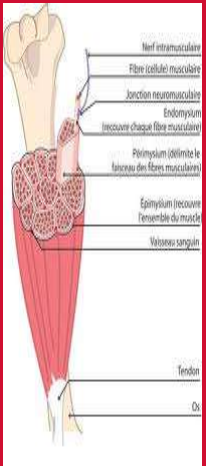## High Glycemic Foods Cause Heart Attacks

Studies from Denmark & Italy:
Those who ate the most FOODS THAT CAUSE HIGH RISES IN BLOOD SUGAR had more than twice the risk of heart disease than those who ate the least.

American J. of Clinical Nutrition, April, 2010
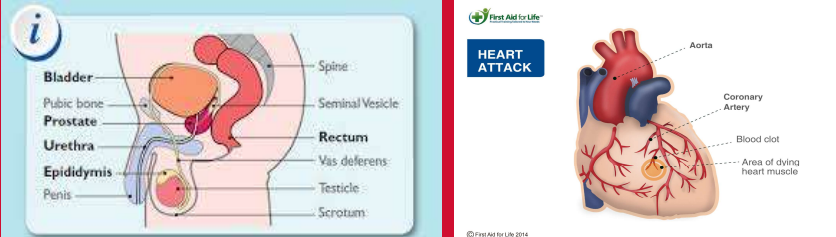Archives of Internal Medicine, May 2010

44

Exercise sensitizes muscle cells to insulin to help prevent high rise in blood sugar that follows eating refined carbohydrates up to 17 hours after you finish a workout.
(athletes' recovery: maximum effect for ½ hr)
Am J Clin Nutr. 2008(July);88(1):51-57

45

45

Thanks for Listening
Prostate Cancer & Heart Attacks should be treated also with the same lifestyle changes

46

For an extensive list of articles and medical journal articles on the likely causes of prostate cancer, go to

WWW.drmirkin.com

search "prostate"

47

47