

THE SCIENCE OF HEALTHY NUTRITION

Below are topics that each of us should be aware of as we factor into the advice we give others and what we choose to do for ourselves. As children we look for the pot of gold at the end of the rainbow. As adults, healthier and happier lives might replace the “pot of gold” goal. The accumulating science of what is healthy nutrition has not been widely disseminated. So this blog is an attempt to focus your attention on why you might consider making some different choices in your life. Consider treating this blog like a treasure hunt; each question can lead you on a path to improved health and happiness. Try to answer each question...then check the answer sheet (check out the listed videos). Take your time....if you have questions, then send me an email and we can discuss further. After you have completed the 35 question/answers, you should have the information that will clear much of your current confusion surrounding healthy choices. You might even incorporate eating the colors of the rainbow daily as you find a happier and healthier life. Best of health to you.

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Questions---Are you aware of....?

1. Trustworthy sources of nutrition information....

2. The AMA resolution (cosponsored by the American College of Cardiology) for US hospitals...other groups worldwide
3. The number one killer in our country.... Third leading cause of death in our country...
4. The only two worldwide studies that have demonstrated reversal of the number 1 killer in our country--heart disease...Ornish and Esselstyn
5. How much our foods have been altered....1900 to 2000 sugar, fats, fiber
6. The side effects of the standard American diet (SAD) diet...heart disease starts at age 10, rates of obesity, diabetes, and other chronic illnesses
7. The health benefits of unprocessed fiber...which foods contain fiber...how much fiber the average American eats daily...how much fiber is ingested by cultures that have little to no chronic illness.
8. How amino acids are made....how much protein in 500 calories or plants vs. animal foods....
9. Chronic illness is generally determined more by lifestyle choices than by genes.
10. The side effects of milk and dairy products....
11. The side effects of calcium supplementation...greens and beans for calcium
12. The Blue Zones—the longest lived and healthiest populations in the world
13. How our planet is affected by what we eat.
14. Soy reduces risk of recurrent breast cancer and increases life expectancy in breast cancer survivors?
15. Processed meats are considered Class 1 carcinogens by

WHO. What are processed meats?

16. Can you name four root causes of disease?

17. Nitric oxide benefits for hypertension...arteriole relaxation

18. TMAO and gut bacteria...the microbiome...who cares?

19. Butyrate signaling...why might this be important for weight control?

20. Oil and slugging of blood

21. Are there special considerations when cooking Garlic and Broccoli? What about flax seeds?...cooking destroys enzyme
Flax seeds need to be ground to get omega-3

22. Allium group and Cruciferous groups are best at fighting _____?

23. Nutritional yeast can add what flavor to your meals?

24. Vitamin B12, Vit D3, medium (DHA) and long chain (EPA) fatty acids...supplement?

25. Antioxidant power varies among fruit and veggies...what might be some best choices?...eat the colors of the rainbow daily

26. What spice reduces inflammation?

27. What is the Whole grain 5:1 rule?

28. What is the significance of IGF-1 ?

29. Do meat, poultry, fish, eggs, and dairy carry contaminants?

30. What is the cause of diabetes?

31. Should we be avoiding carbs?

32. What toxin has been found in rice?

33. What is the pleasure trap? Dr. Doug Lisle

34. How to transition what you choose to eat...Greger's Daily Dozen app, 21 day kick start at www.pcrm.org Chef AJ calorie density chart

35. Techniques for helping people make healthier lifestyle choices..focus on goal..look to the science,..support....motivational interviewing techniques

Answers

1. Check out www.nutritionfacts.org (especially review how he does his research.. "The Philosophy at Nutritionfacts.org" and "Behind the Scenes at Nutritionfacts.org";both of these videos are on Dr. Greger's site at www.nutritionfacts.org) . I have asked every med student that has spent time with me and every member of my community classes to find something wrong with the information provided on these sites...especially www.nutritionfacts.org. There has been one issue about the value of supplementing with DHA (and this issue is still not completely resolved). I encourage you to check out these sites for yourself. The nutritionfacts site is totally transparent and you can read the peer reviewed evidence-based articles for yourself if the information in the videos or articles seems not to be credible based on your current beliefs and information. <https://nutritionfacts.org/video/food-industry-funded-research-bias/>

<https://nutritionfacts.org/video/who-says-eggs-arent-healthy-or-safe/>

<https://nutritionfacts.org/video/bold-indeed-beef-lowers-cholesterol/>

Check out the DVD... *What the Health*

Also check out the resource www.pcrm.org

2. <https://www.pcrm.org/media/news/ama-passes-resolution-hospitals-should-provide-plant-based-meals-and-remove-cancer-causing-processed> The resolution

is as follows.... “Resolved, that our American Medical Association hereby call on US hospitals to improve the health of patients, staff, and visitors by (1) providing a variety of healthful food, including plant-based meals and meals that are low in fat, sodium, and added sugars, (2) eliminating processed meats from menus, and (3) providing and promoting healthful beverages.” You might want to read... “Nutritional Update for Physicians: Plant-Based Diets”, The Permanente Journal/Spring 2013/Volume 17 No.2

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3662288/>

. And you might ask yourself why the following organizations are all recommending a more plant-based diet for human health and for environmental sustainability; American College of Cardiology, 2010 World Health Organization Advisory Committee, American

Association of Clinical Endocrinologists, American Diabetes Association 2018, American Institute for Cancer Research, and the dietary guidelines of Canada, Sweden, Brazil, Germany, Qatar, Netherlands, Denmark, Finland, Iceland, and Norway.

Check out the newly passed law in California and New York... <https://www.pcrm.org/media/news/gov-brown-plant-based-meals-law-in-california-hospitals>

3. Leading cause of death---Cardiovascular disease (CDC statistics)....3rd leading cause of death may be physicians (medications)

https://www.washingtonpost.com/news/to-your-health/wp/2016/05/03/researchers-medical-errors-now-third-leading-cause-of-death-in-united-states/?utm_term=.857454cd23c5

4. Caldwell Esselstyn MD and Dean Ornish MD are the only two studies in the peer reviewed world literature that document reversal of heart disease (our number 1 cause of death)

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2100124/>
<https://www.ncbi.nlm.nih.gov/pubmed/9863851>

5. Check out the “USDA, food review: major food trends a century in review 2000”From 1900 to 2010 Sugar has increased from 5 lbs/person/yr to 77 lbs/yr, Oils/Fats from 4 lbs to 74, Cheese from 2 lbs to 30 lbs, Fruits/Veggies grown in American yards decreased from 131 lbs to 11 lbs, Fiber decreased from 60-100 gms/day to 14 gms/day

https://www.cnpp.usda.gov/sites/default/files/nutrient_content_of_the_us_food_supply/FoodSupply1909-2000.pdf

6. Heart disease starts at age 10

<https://nutritionfacts.org/video/heart-disease-starts-in-childhood/> . 2/3 adults are overweight and 1/3 are obese.

For children—no state has a prevalence of obesity less than 20%. 1 out of 4 adults over the age of 65 have diabetes and for those born after 2000 it is predicted that 1 out of 3; first generation where children will live shorter life than parents. Hypertension, kidney disease, COPD, and other chronic illnesses are side effects of the SAD diet

7. Fiber feeds our good bacteria and the resultant products

(Butyrate) feedback to our brain to turn off the urge to eat... <https://nutritionfacts.org/video/paleopoo-what-we-can-learn-from-fossilized-feces/> .

Fiber hooks up with cholesterol and extra estrogen and speeds transport of carcinogens thru our gut resulting in decreased rates of heart disease, colon and breast cancer. For every 10 grams of fiber you add to your diet you will decrease your risk of heart disease and colon cancer by 10%. All plants have fiber. 3gm in an average serving of fruit, 4 gm in an average serving of veggie, 4 gm in a serving of oatmeal, 6-7 gm in a serving of beans or lentils. There is no fiber in any animal product. 14 gm is average fiber intake in US. Amounts of 60-100 gm in cultures with little chronic illness. <https://www.pcrm.org/health/healthcare->

[professionals/nutritioncurriculum/nutrition-curriculum-session-7-weight-loss](#)

8. Amino acids are all made from plants which take nitrogen from the air and make amino acids. The amounts of protein are almost identical.
[http://opinion.inquirer.net/43733/nutrition-composition-of-plant-and-animal-based-foods-per-500-calories-of-energy](#) The volume of food is a lot less with animal products but the nutrient value is also a lot less. Spinach is 50% protein.
9. Read *The China Study* by Colin Campbell PhD. If people in rural Africa or China who have little chronic disease are moved to the US, and eat the Western diet (meat/sweet diet), they develop the chronic diseases at the same rate as those in their new environment...their genes have not changed...it is the food that has changed and leads to the disease.
10. [www.pcrm.org](#) check out the article..."White Lies?...Five Milk Myths Debunked." Milk builds strong bones is a myth. Milk and other dairy products are the top sources of artery-clogging saturated fat in the American diet. More than 60% of people are lactose intolerant, which can lead to symptoms like bloating, cramping, and diarrhea. [https://www.pcrm.org/nbBlog/white-lies-five-milk-myths-debunked](#)
11. "Are Calcium Supplements Effective" and "Are Calcium Supplements Safe" Consider the risks of

increased heart attacks and strokes when taking calcium supplements. <https://nutritionfacts.org/video/are-calcium-supplements-effective/>
<https://nutritionfacts.org/video/are-calcium-supplements-safe/>

12. Check out the book *The Blue Zones* by Dan Buettner. These are populations that live the longest and healthiest and are 95% plant based.
13. Check out the following videos at nutritionfacts.org and YouTube.com.... “Diet and Climate Change—Cooking Up a Storm” <https://nutritionfacts.org/video/diet-and-climate-change-cooking-up-a-storm/> The following are videos found on YouTube..... “How Much Water Goes Into An 8 ounce Steak” “You Cannot be a Non-Vegan Environmentalist” “Beef vs. Black Beans” “101 Reasons to Go Vegan” You will discover that what we choose to eat has a huge impact on our environment. Perhaps you have not heard that over the last 50 years or so greater than 90% of the ocean fish have been depleted. Raising animals for our food utilizes huge amounts of water and land resources and the air pollution is another factor to consider.
14. “Breast Cancer Survival and Soy” <https://nutritionfacts.org/2012/04/26/breast-cancer-survival-and-soy/> The myth we live with is that soy has estrogenic effects that increase cancer risk. The reality is that for the women eating soy, after a diagnosis of breast

cancer, have a lower breast cancer recurrence rate and a longer life expectancy.

15. <http://www.who.int/features/qa/cancer-red-meat/en/> Processed meat is meat that has been preserved by curing, salting, smoking, drying or canning. Some processed meats include sausages, hot dogs, salami, bacon, ham, salted and cured meat, corned beef, smoked meat, dried meat, beef jerky, canned meat.
16. 1. What you eat 2. How you move 3. Chemical exposure 4. How you react to stress
17. “Oxygenating Blood with Nitrate Rich Vegetables”
<https://nutritionfacts.org/video/oxygenating-blood-with-nitrate-rich-vegetables/> Nitric oxide is produced when dark green leafy vegetables (and beets) combine with saliva. This nitric oxide dilates the small arteries leading to improved blood flow and oxygenation to the body tissues and organs.
18. “Carnitine, Choline, Cancer, and Cholesterol The TMAO Connection”
<https://nutritionfacts.org/video/carnitine-choline-cancer-and-cholesterol-the-tmao-connection/>
The bacteria that populate your colon are determined by your food choices. If you are eating mainly plants, your colon is populated with bacteria that do not lead to the production of TMAO (an inflammatory chemical that promotes the deposition of LDL cholesterol in your arteries leading to plaque formation and atherosclerotic changes.

If you are eating mainly animal products your colon is populated with bacteria that lead to the production of TMAO; which leads to increased risk of cardiovascular disease.

We are learning a lot about the microbiome.....90% of the serotonin is manufactured by the bacteria in our colon.

Give some thought to why so many Americans are on antianxiety and antidepressant meds....

19. “Prebiotics Tending Our Inner Garden”

<https://nutritionfacts.org/video/prebiotics-tending-our-inner-garden/> and “Paleopoo What We Can Learn From Fossilized Feces” (Greger video)

Butyrate is one of the signaling chemicals that tells the body we have had enough to eat. Butyrate production is dependent on the amount of fiber we ingest. Remember...there is no fiber in animal products....just in plants.

20. <https://www.youtube.com/watch?v=AydwpVHPQEk>

Number one cause of heart disease..just watch the first couple of minutes and you will see how blood flow is decreased after a high fat meal. Keep watching the video and you will see what thick plaque can clog the coronary arteries.

21. “Second Strategy to Cooking Broccoli”

Cooking garlic and broccoli can destroy the enzyme that is required for chemical conversion to active health benefitting chemicals. Cut or crush garlic and allow about 10-15 minutes for it to “rest” (this allows the enzyme to work)

before putting in a pan to cook. Cooking also destroys the enzyme in broccoli....so if you cook broccoli eat some uncooked or raw (the enzyme does not get destroyed with just chewing) or add a pinch of mustard powder (this has the enzyme). Flax seeds need to be ground (flax meal) to reap the omega-3 benefits.

<https://nutritionfacts.org/video/second-strategy-to-cooking-broccoli/>

<https://nutritionfacts.org/questions/what-are-the-anti-cancer-effects-of-garlic/>

<https://nouveauraw.com/grains-seeds/flaxseeds/>

22. These veggies are best at fighting cancer

<https://nutritionfacts.org/video/veggies-vs-cancer/>

<https://nutritionfacts.org/video/1-anticancer-vegetable/>

23. Cheese flavor

<https://nutritionfacts.org/video/benefits-of-nutritional-yeast-for-cancer/>

24. If you choose to just eat plants, supplement with Vitamin B12. If you live in Oregon and wear clothes, you probably need to supplement Vit D3. Medium and long chain fatty acids need more study and may need to be supplemented if you are not incorporating sea vegetables in your food choices.

<https://nutritionfacts.org/questions/what-is-the-best-way-to-get-b12/>

<https://nutritionfacts.org/video/the-best-way-to-get-vitamin-d-sun-supplements-or-salons/>

<https://nutritionfacts.org/video/how-much-vitamin-D-should-you-take/>

<https://nutritionfacts.org/video/should-we-take-dha-supplements-to-boost-brain-function/>

<https://nutritionfacts.org/video/should-vegan-women-supplement-with-dha-during-pregnancy/>

25. Eat the colors of the rainbow daily. Berries are especially high in antioxidants. View the videos below and you might be surprised at how various fruits and veggies vary in their antioxidant activities.

<https://nutritionfacts.org/video/minimum-recommended-daily-allowance-of-antioxidants/>

<https://nutritionfacts.org/video/how-to-reach-the-antioxidant-rda/>

https://www.heart.org/idc/groups/heart-public/@wcm/@fc/documents/downloadable/ucm_466712.pdf

26. Turmeric....consider adding a ¼ tsp to you daily food choices.

<https://nutritionfacts.org/video/turmeric-curcumin-and-rheumatoid-arthritis/>

27. When choosing whole grains like bread....look at the fiber....multiple the fiber X 5 ...then check the carbohydrate number. Carbohydrate should be equal to or less than fiber X 5 for the product to be considered whole grain.

<https://nutritionfacts.org/video/the-five-to-one-fiber-rule/>

28. IGF-1 is found in all dairy products. It is insulin like growth factor which is a hormone that encourages the growth of a small mammal into a larger one. Higher levels of IGF-1 are found in many people with cancer....makes sense as it promotes growth.

<https://nutritionfacts.org/2013/02/14/animal-protein-and-igf-1/>

29. PCBs, dioxins, mercury, cadmium, and lead are all concerns. View this video and consider your food choices carefully.

<https://nutritionfacts.org/video/is-organic-meat-less-carcinogenic/>

30. Fat. The myth is that carbohydrates are the cause...leading our population to demonize any carbohydrate such as potatoes, whole grains, rice, and beans. But it is the excess fat in our muscle cells that lead to insulin resistance and the rise in blood sugar. Diabetes is a reversible disease of affluence. About 8 out of 10 people with Type 2 diabetes can reverse this disease process and get off all or most all their diabetic medications if they choose whole foods that are plant based and eliminate animal products from their diet.

<https://nutritionfacts.org/video/what-causes-diabetes/>

31. Paleo and ketogenic diets have been in the news and have a number of followers for the weight loss that occurs. Some can even lower their blood glucose due to the severe restriction of carbohydrate intake. Unfortunately,

the problem with these restricted carbohydrate diets is the ketoacidotic state that results in increased insulin resistance. Insulin resistance is not a healthy condition. Insulin resistance is associated with increased risk of cardiovascular disease (doubling the risk of heart attack and stroke). Insulin resistance is also linked with higher risk for cancers of the bladder, breast, colon, cervix, pancreas, prostate and uterus. High insulin levels fuel the growth of tumors. People can lose weight with any diet, but before you jump on the next fad diet...consider what the long-term side effects might be. There are only two studies in the world literature that demonstrate reversal of heart disease...those are the studies using whole food plant based diets by Ornish and Esselstyn.

<https://nutritionfacts.org/video/paleo-diets-may-negate-benefits-of-exercise/>

Check out the blood flow to the heart one year into the low carb diet...

<https://www.youtube.com/watch?v=zTuK6QKBvcc&t=31s>

32. Arsenic has been found in rice. Consider buying rice grown in California.

<https://nutritionfacts.org/video/how-risky-is-the-arsenic-in-rice/>

33. The pleasure trap is explained more fully in this video. If you get trapped in the donut shop, you experience high level of pleasure until your body adapts and returns to its baseline state of pleasure. When you reduce the calorie

density of your food (whole food plant based), initially you have less pleasure with eating. So you might get trapped into believing that this diet change is the cause of you feeling worse. But after a month or so, your pleasure returns to baseline eating this new way and your health improves.

<https://www.youtube.com/watch?v=jX2btaDOBK8>

34. <https://nutritionfacts.org/video/dr-gregers-daily-dozen-checklist/> After viewing this video....download the free app “Dr Greger’s Daily Dozen” on your smart phone.
<https://www.pcrm.org/health/diets/kickstart/kickstart-programs> 21 day kick start program is free and starts the first of every month.

<https://static1.squarespace.com/static/582f77651b631be0218bb2a9/t/5833c4e2e4fcb5256ead1a53/1479787746528/chef+aj+calorie+chart.pdf> Eat under the green line and to the left of the red line.

View the DVD’s... *Forks Over Knives* and *What The Health*
Consider attending community vegan potlucks or other events like the Eugene Plant Based Providers at

<https://www.eugeneplantbasedproviders.com> Portland vegfest, EVEN (Eugene Veg Education Network), or Roseburg UC VEG events

TED talk...The Most Powerful Strategy for Healing People and the Planet by Michael Klaper MD

<https://www.bing.com/videos/search?q=the+most+powerful+stragegy+for+healing+people+and+the+planet&view=>

[detail&mid=A73DF2F765BA089E37E2A73DF2F765BA089E37E2&FORM=VIRE](https://www.livelifestylemedicine.com/detail&mid=A73DF2F765BA089E37E2A73DF2F765BA089E37E2&FORM=VIRE)

35. Come to the free online Zoom Room sessions (ID Zoom number is 8425055399) on Tuesdays from 7-830pm. Our free online classes and resources can be found at <https://www.livelifestylemedicine.com> If you have any questions... contact me Charlie Ross at cataniaross@msn.com or cross@westernu.edu or contact Scott Wagnon at sewscott@aol.com
Work on your motivational interviewing techniques to best help with behavior change

Congratulations on completing the treasure hunt. I hope you find increased health and happiness after being exposed to the advancing science of healthy nutrition.