## TOP NUTRITION MYTHS

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## MYTH #1: Dietary Cholesterol is Harmful

 Scientific Report of the 2015 Dietary Guidelines Advisory Committee:
"Previously, the Dietary Guidelines for Americans recommended that cholesterol intake be limited to no more than 300 mg/day. The 2015 DGAC will not bring forward this recommendation because available evidence shows no appreciable relationship between consumption of dietary cholesterol and serum (blood) cholesterol, consistent with the AHA/ACC (American Heart Association / American College of Cardiology) report.

Cholesterol is not a nutrient of concern for overconsumption."



# The Beginning of the Cholesterol Theory of Heart Disease

 Dr. Nikolai Anchikov showed that feeding rabbits large amounts of cholesterol stimulated plaque build up in the arteries of the rabbits



Fig. 7 Dr. Anichkov. in his office in 1945, in the uniform of a

## **Rabbit Studies**

- Rabbits are hindgut fermenting herbivores (vegan)
- Plant foods do not contain cholesterol



### MYTH #2: Saturated Fat Causes heart Disease

Comment by Dr. Darius
 Mozaffarian, M.D. of Harvard
 School of Medicine in Journal of
 American Dietetic Association

"Although the paradigm that saturated fat is a major cause of CHD has become entrenched in the public and scientific consciousness over decades, modern nutritional evidence does not support a major effect of saturated fat on heart disease."



### Journal of American College of Cardiology

Saturated Fats and Health: A Reassessment and Proposal for Food Based Recommendations 2020 August, 76 (7) pages 844-857

 The recommendation to limit dietary saturated fatty acid (SFA) intake has persisted despite mounting evidence to the contrary. Most recent meta-analyses of randomized trials and observational studies found no beneficial effects of reducing SFA intake on cardiovascular disease (CVD) and total mortality, and instead found protective effects against stroke. Although SFAs increase low-density lipoprotein (LDL) cholesterol, in most individuals, this is not due to increasing levels of small, dense LDL particles, but rather larger LDL particles, which are much less strongly related to CVD risk. It is also apparent that the health effects of foods cannot be predicted by their content in any nutrient group without considering the overall macronutrient distribution. Whole-fat dairy, unprocessed meat, and dark chocolate are SFA-rich foods with a complex matrix that are not associated with increased risk of CVD. The totality of available evidence does not support further limiting the intake of such foods.

## Types of Dietary Fat

- Polyunsaturated Fat
- \*omega 3 fat(fatty fish)
- \*omega 6 fat ("vegetable oils")
- Monounsaturated Fat
- \*omega 9 fat(olive, avocado, nuts)
- Saturated Fat
- Trans (Transformed) Fat



## Polyunsaturated Omega 6 oils

- Cottonseed oil
- Soybean oil
- Corn oil
- Sesame seed oil
- Safflower oil
- Grapeseed oil
- Sunflower seed oil
- Rice bran oil

Canola and peanut oil are mostly monounsaturated fats but have a high percentage of omega 6 fats

\*Heat, light, and oxygen damage these fats\*



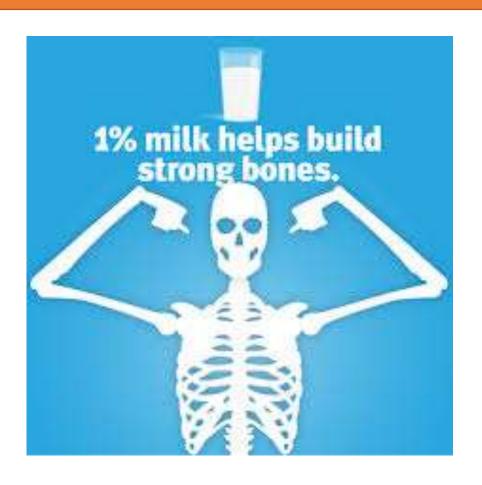
# Fact: Polyunsaturated Fats Lower Serum Cholesterol, but...

- Lancet 1994 Oct 29;344(8931):1195-6.
- Dietary polyunsaturated fatty acids and composition of human aortic plaques
- <u>C V Felton <sup>1</sup></u>, <u>D Crook</u>, <u>M J Davies</u>, <u>M F Oliver</u>

How long-term dietary intake of essential fatty acids affects the fatty-acid content of aortic plaques is not clear. We compared the fatty-acid composition of aortic plaques with that of postmortem serum and adipose tissue, in which essential fatty-acid content reflects dietary intake. Positive associations were found between serum and plaque omega 6 (r = 0.75) and omega 3 (r = 0.93) polyunsaturated fatty acids, and monounsaturates (r = 0.70), and also between adipose tissue and plaque omega 6 polyunsaturated fatty acids (r = 0.89). No associations were found with saturated fatty acids. These findings imply a direct influence of dietary polyunsaturated fatty acids on aortic plaque formation and suggest that current trends favoring increased intake of polyunsaturated fatty acids should be reconsidered.

# MYTH #3: Calcium Is The Most Important Thing To Build Strong Bones

- Exercise is by far the most important thing to build strong bones. (Wolff's Law)
- Numerous minerals makeup bone: calcium, phosphorus, magnesium, boron, sodium, chloride, strontium, etc.
- Vitamin's D and K2 regulate mineral uptake in bone



## Wolff's Law

- Dr. Julius Wolff (1836-1902)
- Bones will adapt according to the load placed on them



### Calcium intake influences the association of protein intake with rates of bone loss in elderly men and women Bess Dawson-Hughes, Susan S Harris Author Notes

The American Journal of Clinical Nutrition, Volume 75, Issue 4, April 2002, Pages 773–779

Published:
01 April 2002

- Among subjects supplemented with calcium citrate malate and vitamin D, a 20% higher mean protein intake was associated with favorable changes in total-body BMD.
- In conclusion, we identified a positive association between dietary protein intake and change in total-body and femoral neck BMD in healthy older men and women supplemented with calcium citrate malate and vitamin D.

## Bantu



## How To Build Strong Bones

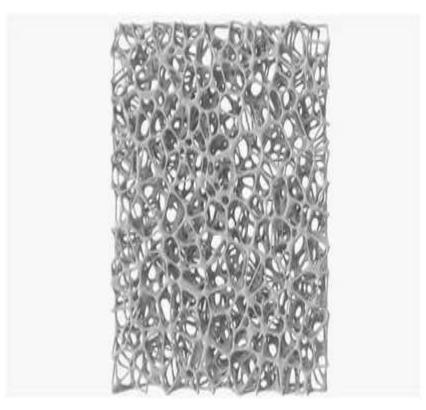
- Exercise, especially weight bearing
- Adequate protein- ~50% of bone is protein (bone matrix)
- Adequate Vitamin D- get tested, ideal levels will be ~50ng/mL. Obtain through sunlight or supplementation (cod liver oil or Vitamin D3)
- Vitamin K2- produced through bacterial fermentation in our guts and in the process of cheese making and a soy based product called natto. Edam and Gouda are rich sources. K1 is in leafy greens. Be careful supplementing if on blood thinners. Supplementing 200mcg/day.
- Magnesium- 80% of population deficient. Influences osteoblasts and osteoclasts, parathyroid hormone and active form of vitamin D (calcitriol). Strive for 1:1 ratio of magnesium to calcium.
- Factors that inhibit calcium absorption include fiber (insoluble?), oxalic acid, phytates, alcohol, refined carbohydrates

## Structure

**Building Frame** 



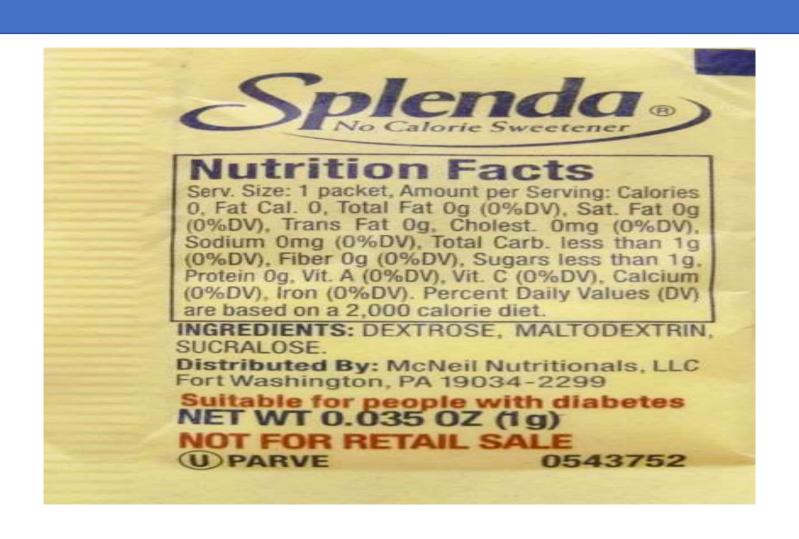
**Bone frame** 



### MYTH #4: Red Meat Causes Cancer

- October 2015, The World Health Organization classified red meat as a class 2a(probable) carcinogen.
- Conclusion from 300 nutrition studies reviewed by advisory board.
- Conclusion from one study stated, "Collinearity between red meat intake and other dietary factors (e.g. Western lifestyle, high intake of refined sugars and alcohol, low intake of fruits, vegetables and fibre) and behavioural factors (e.g. low physical activity, high smoking prevalence, high body mass index) limit the ability to analytically isolate the independent effects of red meat consumption".
- Numerous studies show Americans with a high intake of red meat also do not exercise regularly, are more likely to smoke and drink, be overweight, eat less fruits and vegetables, and have poor sleep habits.
- Most Americans eat red meat on a white bun with french fries and a soft drink.
- High iron intake and over cooking could be a problem.

## Myth #5: Artificial Sweeteners are Sugar Free



O Calorie Sweetener

alamy

#### **Nutrition Facts**

Serving Size 1 packet (1g) Servings per Carton 200

**Amount Per Serving** 

Calories 0

% Daily Value\*

Total Fat 0g 0%

Sodium Omg 0%

Total Carb. less than 1g 0%

Sugars less than 1 g

**Protein** Og

\*Percent Daily Values are based and on a 2,000 calorie diet.

INGREDIENTS: DEXTROSE WITH MALTODEXTRIN, ASPARTAME PHENYLKETONURICS:

CONTAINS PHENYLALANINE

One packet contains less than 1 gram of carbohydrate SWEET AS 2 TSP. SUGAR

a



Pat. No. 3,625,711

## ZERO CALORIE SWEETENER A blend of nutritive and non-nutritive sweeteners

INGREDIENTS: Nutritive Dextrose, 3.6% Soluble Saccharin (36 mg per packet), Cream of Tartar, Calcium Silicate (an anti-caking agent).

Nutrition Facts: Serv. Size: 1 packet, Servings: 1, Amount Per Serving: Calories 0, Total Fat 0g (0% DV), Sat. Fat 0g (0% DV), Trans Fat 0g, Sodium Omg (0% DV), Total Carb. Less than 1g (0% DV), Sugars Less than 1g, Protein 0g. Percent Daily Values (DV) are based on a 2,000 calorie diet.

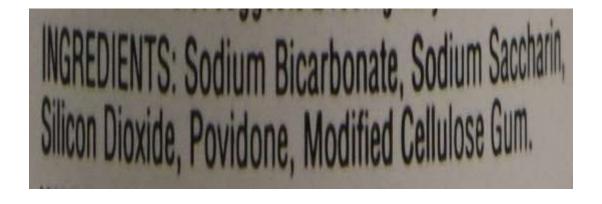
Information: 1 packet contains the sweetness of 2 teaspoons of sugar.

Cumberland Packing Corp., Brooklyn, NY 11205 NET WT. 0.035 0Z. (1g)

Go to sweetnlow,com for great recipe Ideas and premium offers.

### Necta Sweet





## STEVIA IN THE RAW® IS A PRODUCT OF CUMBERLAND PACKING CORP. 2 CUMBERLAND ST., BROOKLYN, NY 11205 USA

#### **Nutrition Facts**

Serving Size 1 Packet (1g) Servings Per Container 200

Servings Per Container 200	
Amount Per Serving	
Calories 0	
	% Daily Value*
Total Fat 0g	0%
Saturated Fat 0g	0%
Trans Fat 0g	
Sodium 0mg	0%
Total Carbohydrate Less than 1g	0%
Sugars Less than 1g	

Protein 0g

Not a significant source of calories from fat, cholesterol, dietary fiber, vitamin A, vitamin C, calcium and iron.

\*Percent Daily Values are based on a 2,000 calorie diet.

#### INGREDIENTS: Dextrose, Stevia Leaf Extract

Stevia is naturally sweeter than sugar.
So, like many zero calorie sweeteners,
it is blended with dextrose, a natural
ingredient. This helps create the perfect
balance of sweetness, making it easier
to both pour and measure.

#### SUITABLE FOR PEOPLE WITH DIABETES.

Each packet contains less than 4 calories per serving which the FDA considers dietetically zero.

### Truvía™ sweetener comes from nature:

Rebiana comes from the sweet leaf of the stevia plant, native to South America. Dried stevia leaves are steeped in water, similar to making tea. This unlocks the best tasting part of the leaf which is then purified to provide a calorie-free sweet taste.

Natural flavors complement the clean sweet taste of Truvía'\*

#### Distributed By:

Cargill, Incorporated Minneapolis, MN 55440 Truvia" is a trademark of The Truvia Company LLC. (866) 853-6077 www.truvia.com



Nature's Calorie-Free Sweetener

#### Ingredients:

Erythritol, rebiana, natural flavors Suitable for people with diabetes.

#### **Nutrition Facts**

Serving Size 1 packet (3.5g) Servings per Carton 40

#### Amount Per Serving

Calories

culortes ()		
% Daily Vo	% Daily Value*	
ordirat Oo	0%	
Sodium Omg	0%	
Total Carbohydrates 3g	1%	
Erythritol 3g		

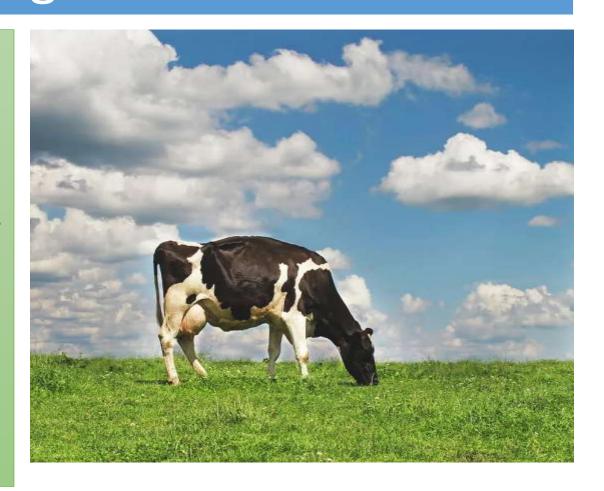
Protein Og

Not a significant source of calories from fat, saturated fat, trans fat, cholesterol, dietary fiber, sugars, vitamin A, vitamin C, calcium and iron.

\*Percent Daily Values are based on a 2,000 calorie diet.

# Myth # 5: Eat Small Frequent Meals to Lose Weight

- Most often cited study to back up claim is a 1989 study in New England Journal of Medicine.
- Study compared eating 3 times/day to 17 times/day
- Conclusion showed those eating 17 meals/day had slightly lower insulin levels but no other statistical differences
- Calories and hormonal effects of food are most important variables in determining weight
- Small frequent meals can be helpful to those with adrenal issues or hypoglycemia



# Myth #6: Low \_\_\_\_ Foods are Healthier Than Their Regular Counterparts

- Fat, salt (sodium), sugar are the 3 primary flavor enhancers in food
- Remove or reduce one and one of the others if not both gets added
- Th introduction of these foods began in the mid 1980's prior to the explosion of obesity and type 2 diabetes



## Myth # 7: Plant foods are Harmless

- Most plants contain compounds (antinutrients) that can have a negative impact on the health of that which consumes it
- Compounds include lectins, enzyme inhibitors, phytates, oxalates, goitrogens, tannins, etc.
- Grains, beans, and peas are most problematic foods
- Cooking, fermenting, sprouting, and soaking reduce these anti-nutrients
- People with digestive issues or autoimmune diseases are most susceptible



#### Nutrients. 2020 Oct; 12(10): 2929.

#### Published online 2020 Sep 24. doi: 10.3390/nu12102929

## Is There Such a Thing as "Anti-Nutrients"? A Narrative Review of Perceived Problematic Plant Compounds Weston Petroski and Deanna M. Minich\*

'Anti-nutrient'	Food Sources	Suggested Clinical Implications
Lectins	Legumes, cereal grains, seeds, nuts, fruits, vegetables	Altered gut function; inflammation
Oxalates	Spinach, Swiss chard, sorrel, beet greens, beet root, rhubarb, nuts, legumes, cereal grains, sweet potatoes, potatoes	May inhibit calcium absorption; May increase calcium kidney stone formation
Phytate (IP6)	Legumes, cereal grains, pseudocereals (amaranth, quinoa, millet), nuts, seeds	May inhibit absorption of iron, zinc and calcium; Acts as an antioxidant; Antineoplastic effects
Goitrogens	Brassica vegetables (kale, Brussels sprouts, cabbage, turnip greens, Chinese cabbage, broccoli), millet, cassava	Hypothyroidism and/or goiter; Inhibit iodine uptake
Phytoestrogens	Soy and soy products, flaxseeds, nuts (negligible amounts), fruits and vegetables (negligible amounts)	Endocrine disruption; Increased risk of estrogen- sensitive cancers
Tannins	Tea, cocoa, grapes, berries, apples, stone fruits, nuts, beans, whole grains	Inhibit iron absorption; Negatively impact iron stores

#### Epidemiol Infect 1990 Dec; 105(3);485-491

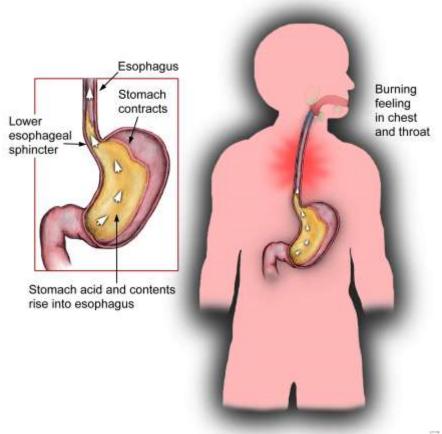
Red kidney bean poisoning in the UK: an analysis of 50 suspected incidents between 1976 and 1989

J C Rodhouse <sup>1</sup>, C A Haugh, D Roberts, R J Gilbert

• Between July 1976 and February 1989, 50 incidents of suspected red kidney bean poisoning were reported in the UK. Nine incidents in which nausea, vomiting and diarrhea developed within 1-7 h of ingestion, were confirmed by the detection of haemagglutinin in the beans. The diagnosis was made on a further 23 incidents on the basis of symptoms, incubation time and the description of preparation of beans prior to consumption. The haemagglutinin (lectin), which occurs naturally in the red kidney bean, is inactivated by thorough cooking of well soaked beans. In many of the outbreaks reported the implicated beans were consumed raw or following an inadequate heat process.

## Myth# 8: Acid reflux is caused by too much acid

- Acid reflux is primarily caused by a faulty LES (lower esophageal sphincter)
- Intra-abdominal pressure can create pressure on stomach forcing LES to not close properly
- Low stomach acid can cause food to sit in stomach too long combined with an over growth of bacteria can lead to fermentation
- Overgrowth of bacteria too far up the GI tract



## Myth #9: The USDA's Food Guide Pyramid Was Created To Promote Good Health

- Luise Light RD., was asked by the USDA to create a new healthy eating plan to replace the Four Basic Food Groups in the late 1970's.
- Her original pyramid had fruits and vegetables as the base(5-9 servings), with grains and sugars at the top (2-3 servings).
- She has stated that her original pyramid was changed to curb the cost of the food stamp program. (Also the USDA has to try and please too many people)
- The Food Guide Pyramid was released in 1992.
- As Luise predicted obesity and diabetes rates have skyrocketed since its inception.





## Book by Luise Light

