

The 7 Habits of Happy, Healthy Vegans

Ginny Messina, MPH, RD
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Northampton, MA
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Veganism is...

A way of living that seeks to exclude, as far as possible and practical, all forms of exploitation of, and cruelty to, animals for food, clothing and any other purpose.

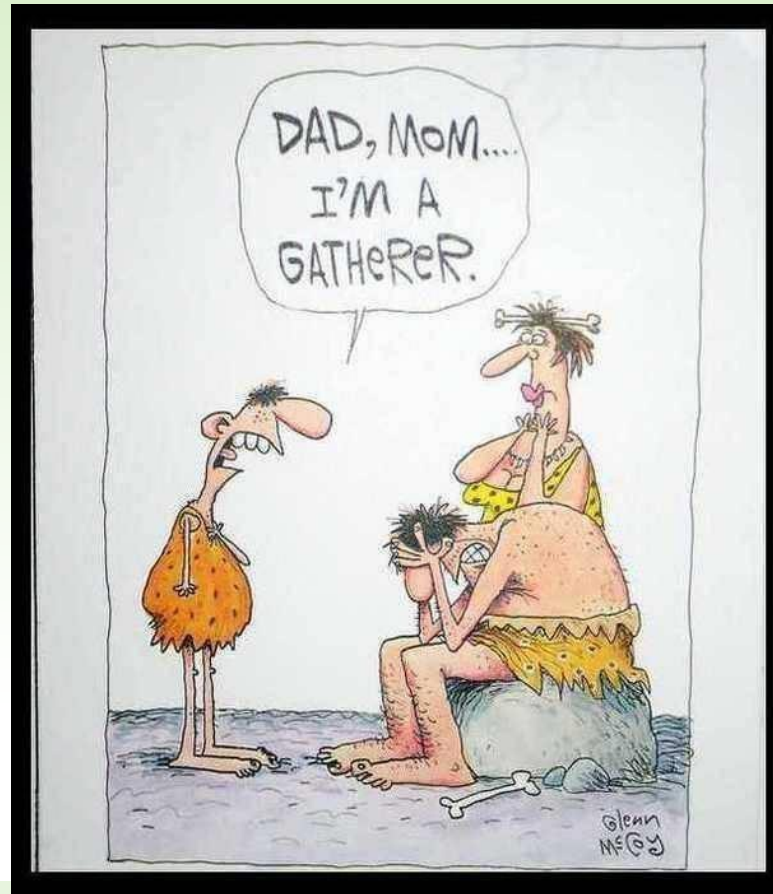
The Vegan Society, 1944

Vegetarian

Vegetarian



Vegan Diets: No Cultural or Historical Habits



7 Habits of Happy, Healthy Vegans

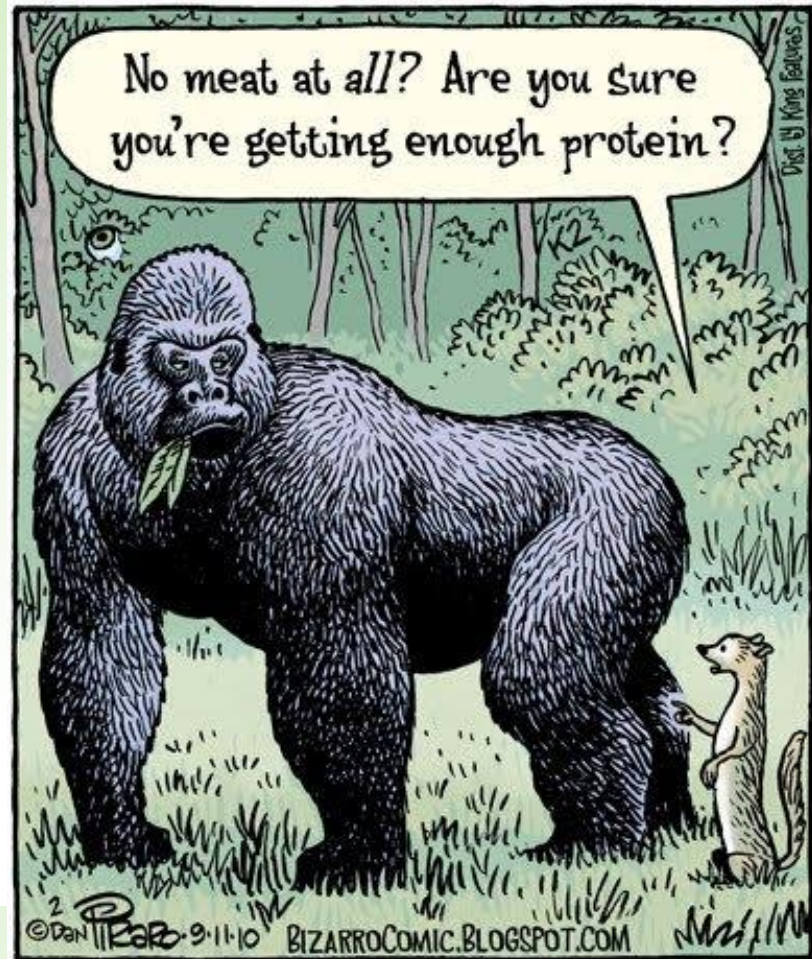
1. **Eat legumes**
2. **Choose healthy fats**
3. **Identify important supplements**
4. **Eat a rainbow**
5. **Get adequate calcium**
6. **Enjoy vegan foods**
7. **Celebrate veganism**

1. Eat Legumes



Where do you get your protein?

Grains
Vegetables
Nuts
Seeds
Legumes



Amino Acids

- **Building blocks of protein**
- **Used to build new proteins in the body**
- **9 are “essential” & must come from food**
- **Grains, legumes, vegetables, nuts, and seeds provide all 9 essential amino acids, but are low in one or more**

Vegan Protein: Importance of Legumes

Legumes are the only good
plant sources of the essential
amino acid **lysine**

Peanuts



Soyfoods



*Beans,
Peas, Lentils*

3 Daily Servings of Legumes

- **1/2 cup cooked beans, tofu, tempeh**
- **1/4 cup soy nuts, peanuts**
- **2 tbsp peanut butter**
- **1 cup soymilk**
- **1 oz veggie meat**



**Pistachios
and
Quinoa**
(honorary legumes)



Legume Serving Sizes

- **1/2 cup cooked beans, tofu, tempeh**
- **1/4 cup soy nuts, peanuts**
- **2 tbsp peanut butter**
- **1 cup soymilk**
- **1 oz veggie meat**
- **1/4 cup pistachios**
- **1 cup quinoa**

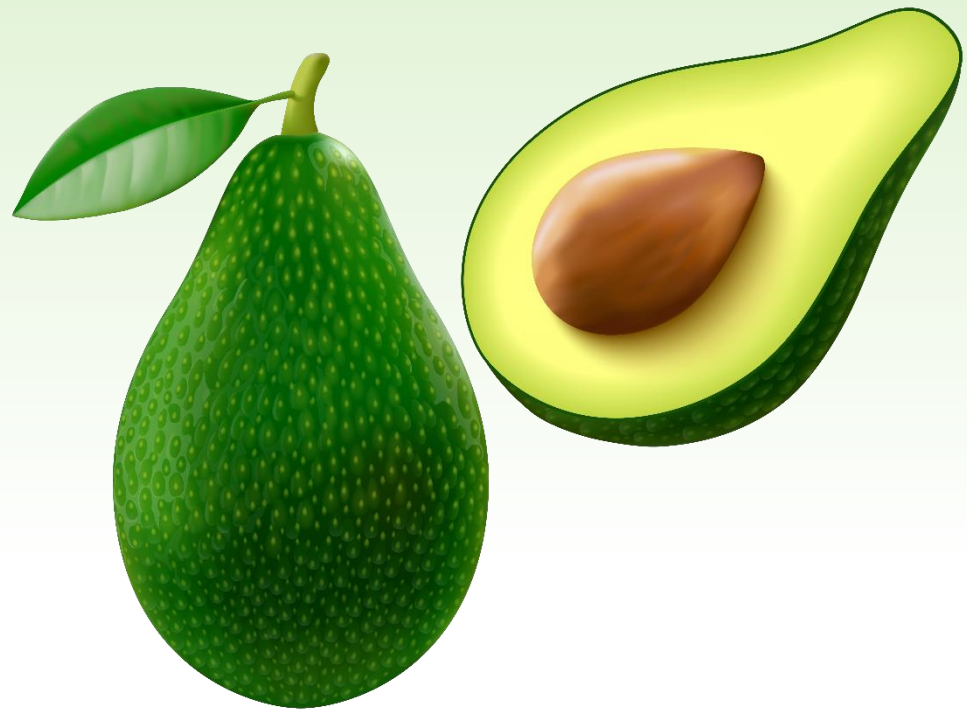


A Serving of Legumes

- PB& J sandwich
- Scrambled tofu
- Veggie burger
- Barbecued tempeh
- Hummus wrap
- Lentil soup
- Quinoa pilaf
- Trail mix with pistachios
- Vegetables with peanut sauce
- Salad with soynuts
- Bean burrito
- Taco with veggie “ground beef”



2. Choose Healthy Fats



Essential Omega-3 Fatty Acid

Alpha-linolenic acid (ALA)

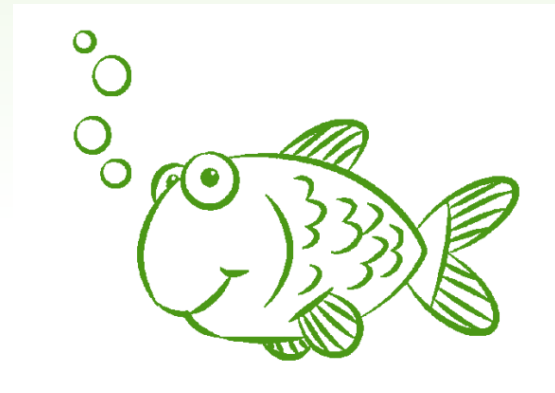
- Ground flaxseed (1 tbsp)
- Flaxseed oil (1 tsp)
- Walnuts (4 halves)
- Walnut, hempseed, soy or canola oil (1 tbsp)
- Chia seeds (2 tsp)


DHA & EPA: Long-chain Omega-3 Fats



DHA and EPA

- **Found in fatty fish**
- **May reduce risk for heart disease, dementia, depression**



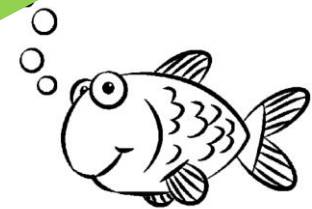


**Alpha-
linolenic acid
(essential fatty
acid)**

Conversion is relatively poor

**DHA and EPA
(long chain
omega-3 fats)**

**Vegans typically have
low blood and tissue
levels of DHA and EPA**



Fish Get DHA and EPA from Algae...We Can, Too



Vegan Omega-3 Fats from Algae

200-300 mg DHA + EPA

2-3 times per week



Healthy Sources of Fats

- Nuts

- Seeds

- Avocado

- Olives

- Vegetable oils



Benefits of High-Fat Plant Foods



- Nuts and seeds provide zinc
- Nuts reduce risk for heart disease
- Nuts/monounsaturated fats helpful for controlling diabetes
- Replacing saturated fat with plant fats improves cholesterol levels

Vegan Diet with Healthy Fats

Breakfast

Miso soup w/ ½ C tofu,
1 C vegetables

½ C brown rice

1 C honey dew melon

Lunch

Raw vegetable salad

Vinaigrette (1 tsp oil)

1 ½ C lentil soup + tomatoes

2 slices whole grain bread

Banana

Dinner

1 C quinoa

1 C black beans

1 ½ C greens in 2 tsp oil

Snacks:

1 C fruit topped w/ ¼ C walnuts

Air popped popcorn

Total calories: 1800

Saturated fat: <3%

0 grams cholesterol



3. Take the right supplements

All Vegans

Vitamin B12

Some Vegans

Vitamin D

Iodine



Vitamin B12

Made by bacteria

**Does not occur
naturally in plants**



Vitamin B12 Analogues

Similar structure to
B12, but **no vitamin
activity**



- ❖ Fermented soyfoods
- ❖ Sourdough bread
- ❖ Sea vegetables
- ❖ Chlorella, spirulina
- ❖ Shiitake mushrooms

Can we get adequate B12 from unwashed organic produce?



Endogenous B12 Production



Vitamin B12 Storage

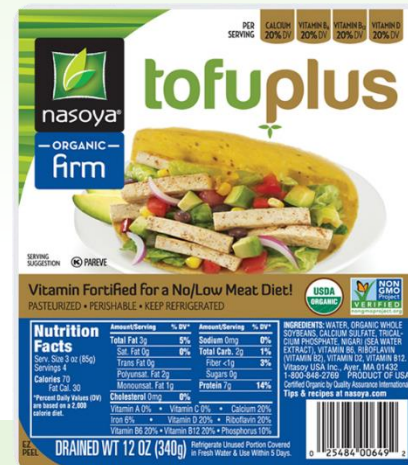
- **In liver and muscle**
- **Size of B12 stores determined by your pre-vegan diet**

Vitamin B12 Deficiency

- **Anemia**
- **Neurological Symptoms**
 - **Tingling**
 - **Weakness**
 - **Paralysis**
 - **Dementia, Depression**



Vitamin B12-Fortified Foods





Nutritional Yeast

Red Star Vegetarian Support Formula (VSF)

Recommendations for B12 Supplements (Cyanocobalamin)

- **2 fortified foods per day; at least 1.5 micrograms each *or***
- **25-100 micrograms daily *or***
- **1,000 micrograms 2-3x per week**

Supplemental Vitamin B12: Not Just for Vegans



**Health
conscious
omnivores**



**Everyone
over the
age of 50**

Food sources of vitamin D

- ❖ **Fish**
- ❖ **Fortified foods**



Factors that reduce vitamin D synthesis

- Smog, clouds
- Sunscreen
- Darker skin
- Age
- Weak sunlight
(northern latitudes in winter)



Two Forms of Vitamin D

- **D3: Cholecalciferol is animal-derived (fish, sheep's wool)**
- **D2: Ergocalciferol is plant-derived (yeast)**





60 VITAMIN D3 2500IU

Vitashine
VITAMIN D3 TABLETS 2500IU

- ✓ Helps maintain normal bones & teeth
- ✓ Supports a normal immune system
- ✓ Supports normal muscle function

Dietary Supplement



www.vitashine-d3.com

Vitamin D RDA 600 IU per day



**Iodine in vegetables
depends on iodine in soil**



Iodine Sources

- **Iodized salt**
- **Dairy**
- **Fish**
- **Vegetables**



Iodine from Sea Vegetables?



Iodine Sources for Vegans

- Iodized salt
($\frac{1}{4}$ teaspoon per day)



- 90-150 micrograms iodine from supplement 3-4 times per week

Supplements

- ❖ **Vitamin B12**
- ❖ **Vitamin D**
- ❖ **Iodine**
- ❖ **DHA/EPA (omega-3 fats)**

Supplements for Vegans and Omnivores

| | Vegans | Omnivores |
|--------------------|--|--|
| Vitamin B12 | Supplements Fortified foods | Animal foods Supplements (after age 50) Fortified foods |
| Vitamin D | Supplements Fortified foods sunshine | Supplements Fortified foods Sunshine |
| Iodine | Supplements Iodized salt | Milk contaminated with cleaning solution Iodized salt |
| DHA/EPA | Supplements | Fish Supplements |

4. Eat a Rainbow



Fruits and Vegetables



Calcium



Phytochemicals



Potassium

Folate



Vitamin C



Vitamin A



Vitamin C and Iron



Dietary Iron

| | Mg of iron |
|----------------------|------------|
| Salmon, 3 oz | 0.6 |
| Chicken, ½ breast | 0.6 |
| Beef, 3 oz | 1.3 |
| Soymilk, 1 C | 1.6 |
| Black-eyed peas, ½ C | 2.2 |
| Tofu, 3 oz | 3.0 |
| Lentils, ½ C cooked | 3.3 |



Vitamin C

Phytate—Iron



Iron and Vitamin C

IRON

- Legumes
- Whole and enriched grains



VITAMIN C

- Citrus fruits
- Strawberries
- Green leafy vegetables
- Peppers
- Cauliflower
- Cabbage

Iron + Vitamin C

- **Oatmeal with orange juice**
- **Brown rice topped with steamed broccoli**
- **Bean soup with leafy greens**



Fruits and Vegetables for Vitamin A



Vitamin A Superstars

| | Amount providing 100% of RDA for vitamin A |
|--------------------------------------|---|
| Carrot juice | 1/4 cup |
| Sweet potatoes, pumpkin | 1/2 cup cooked |
| Butternut squash, carrots | 2/3-3/4 cup cooked |
| Spinach, collards, kale | 1 cup cooked |

Fruits and Vegetables for Calcium



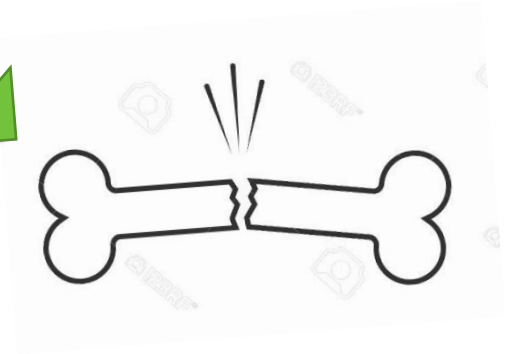
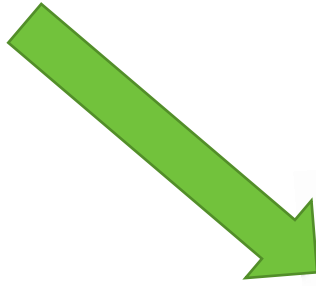
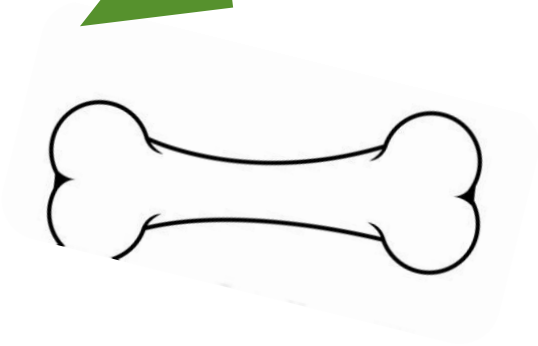
5. Get Adequate Calcium



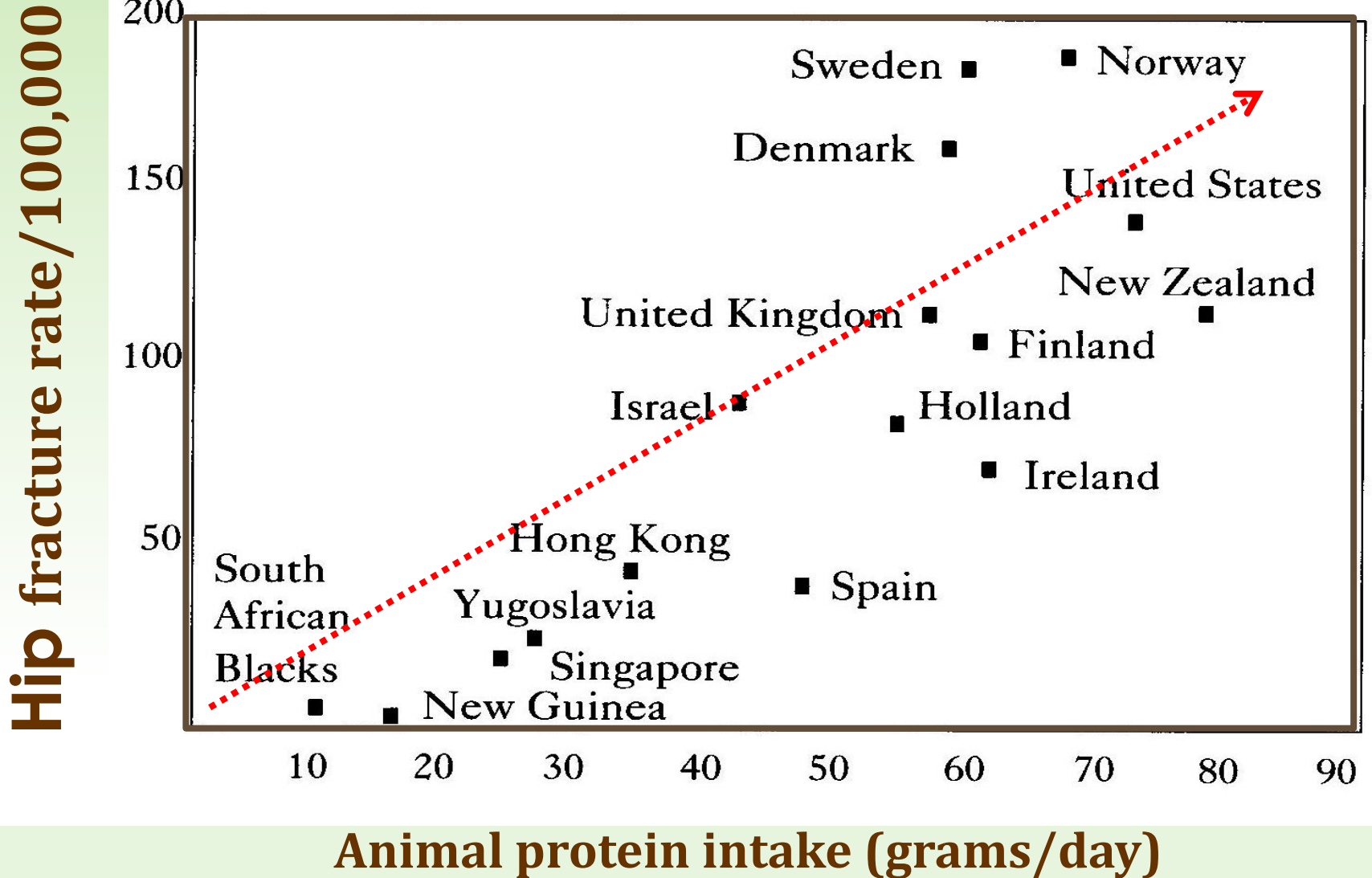
Vegans typically have lower calcium intakes than omnivores and lacto-ovo vegetarians.



Protein



Hip Fracture Rates & Animal Protein Intake

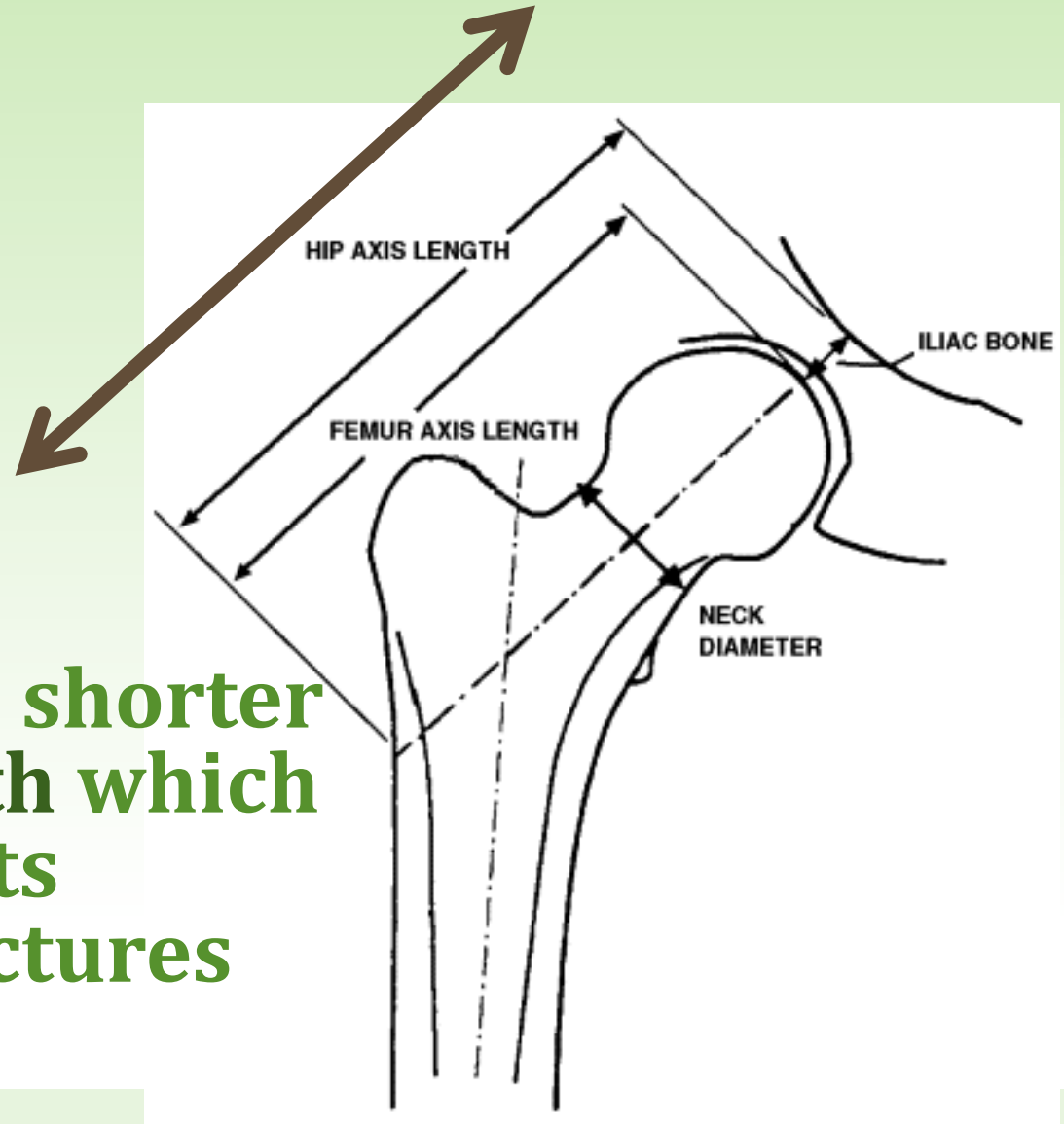


Hip Fracture Data Ecological Study

- Studies that pool data from different groups and compare the averages—rather than comparing information from individuals
- Don't control for other variables
- Miss important factors that might affect the comparisons

Genetic Differences

Asians have a shorter hip axis length which protects against fractures



Cultural Differences

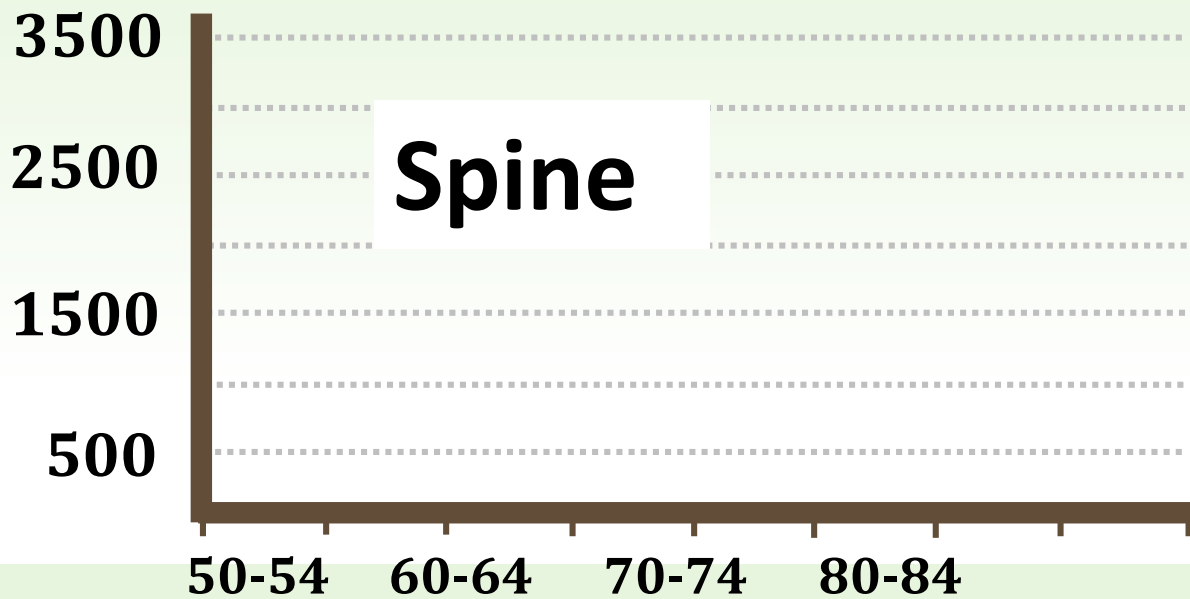
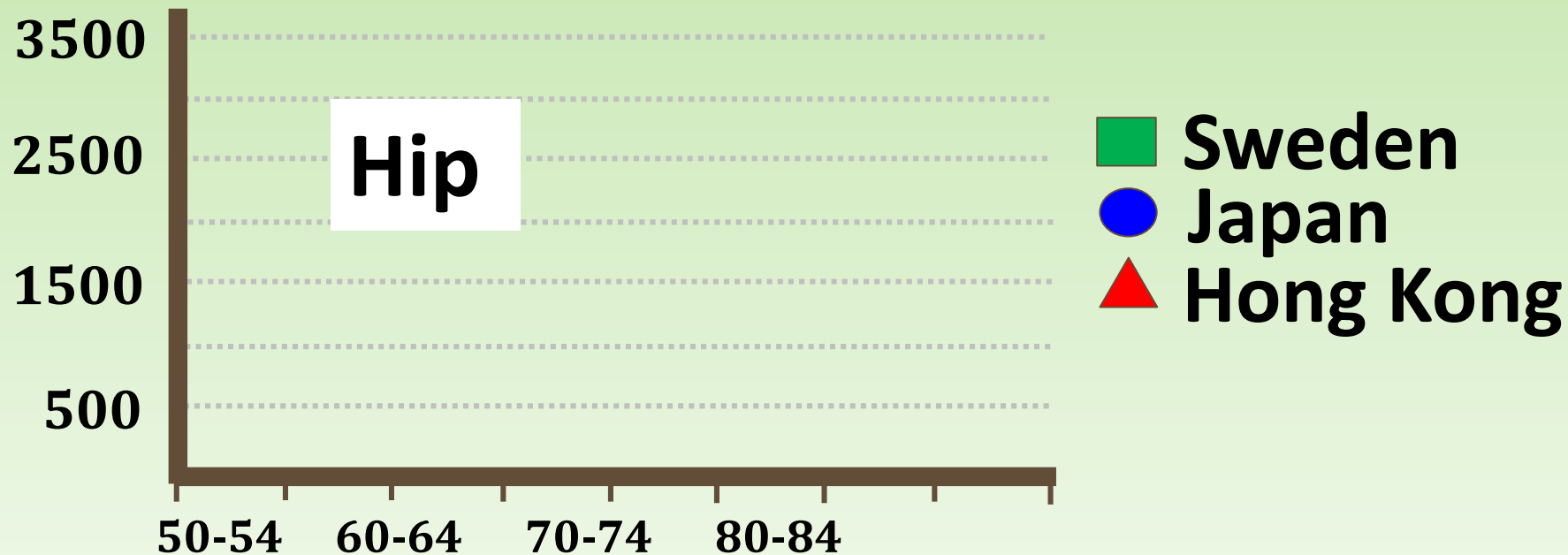
Strength

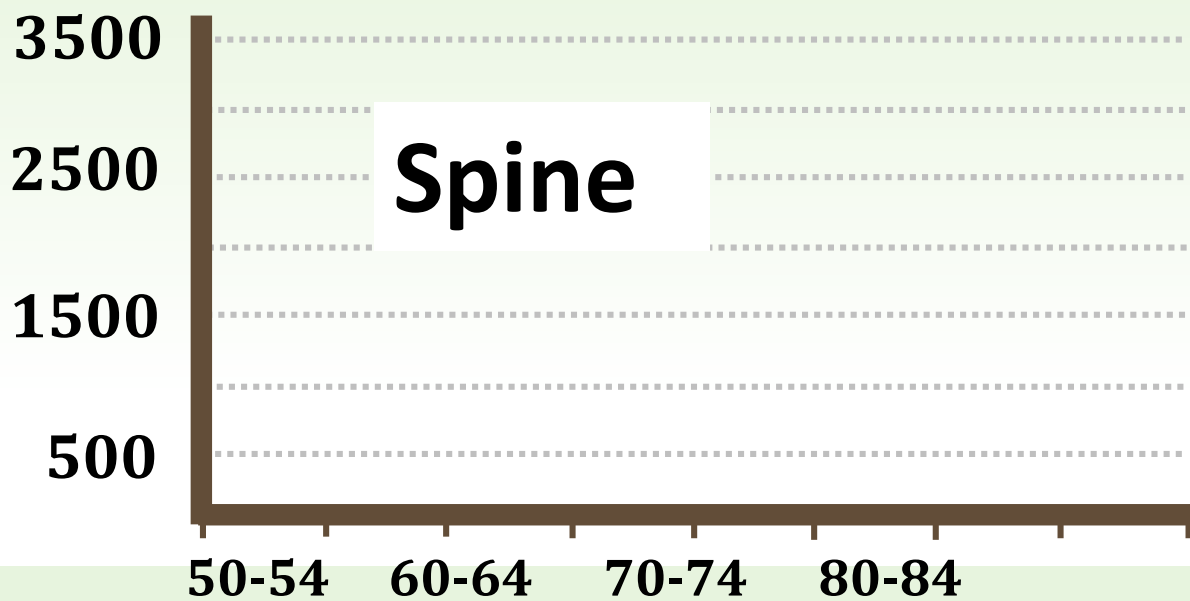
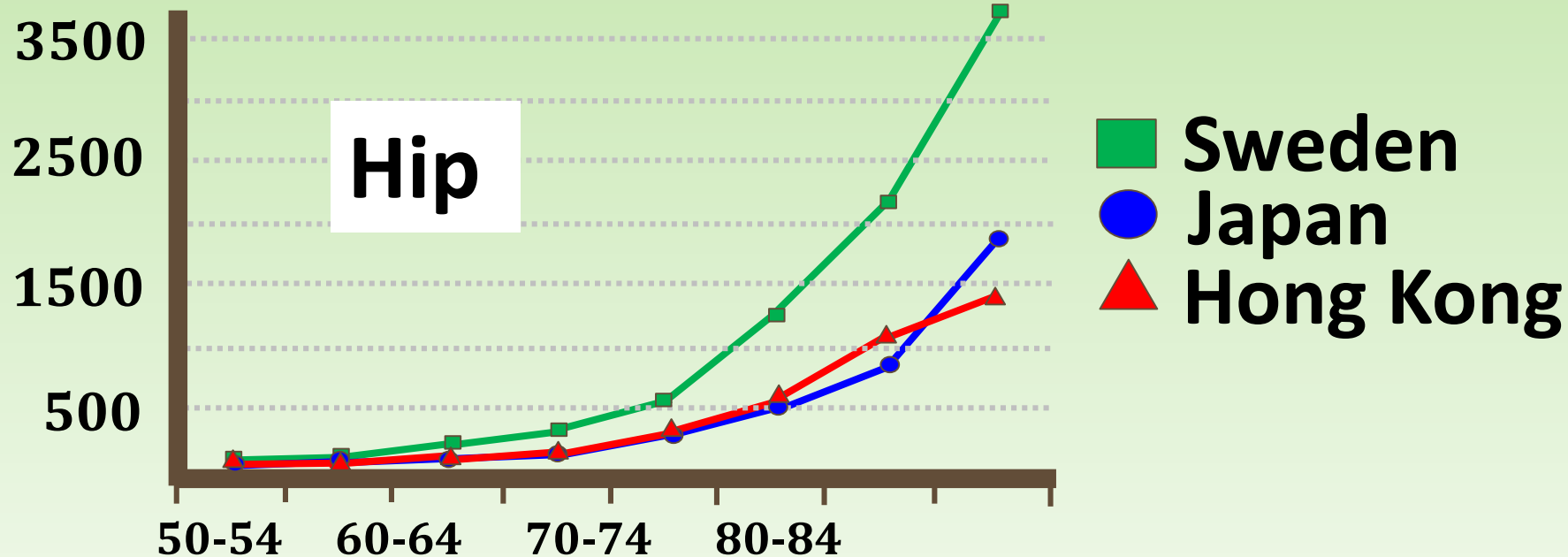
Balance

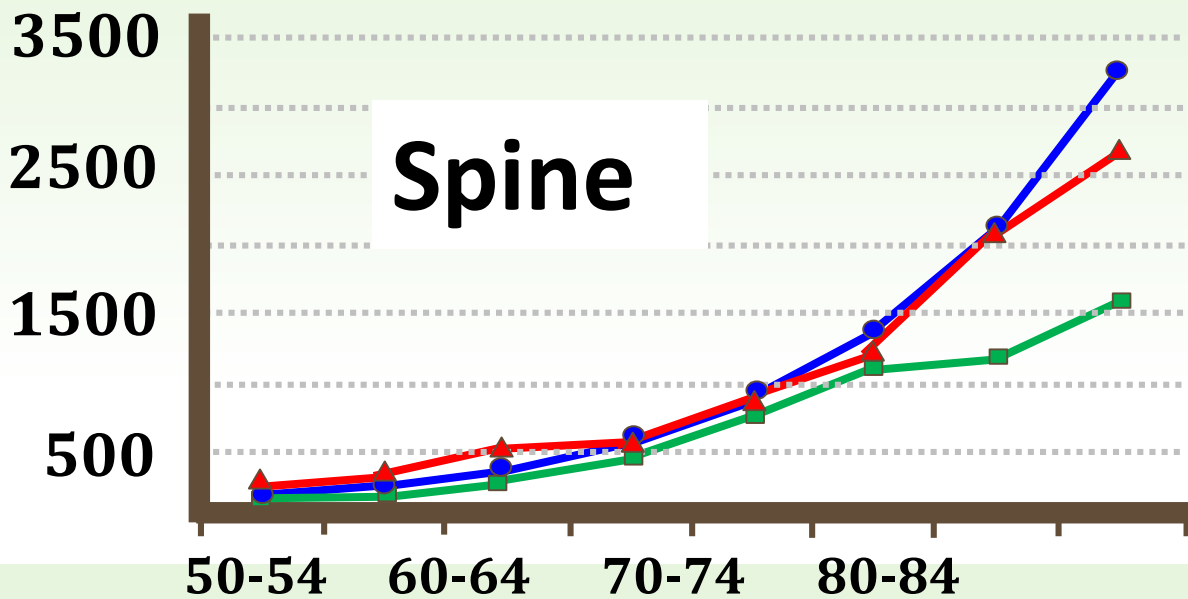
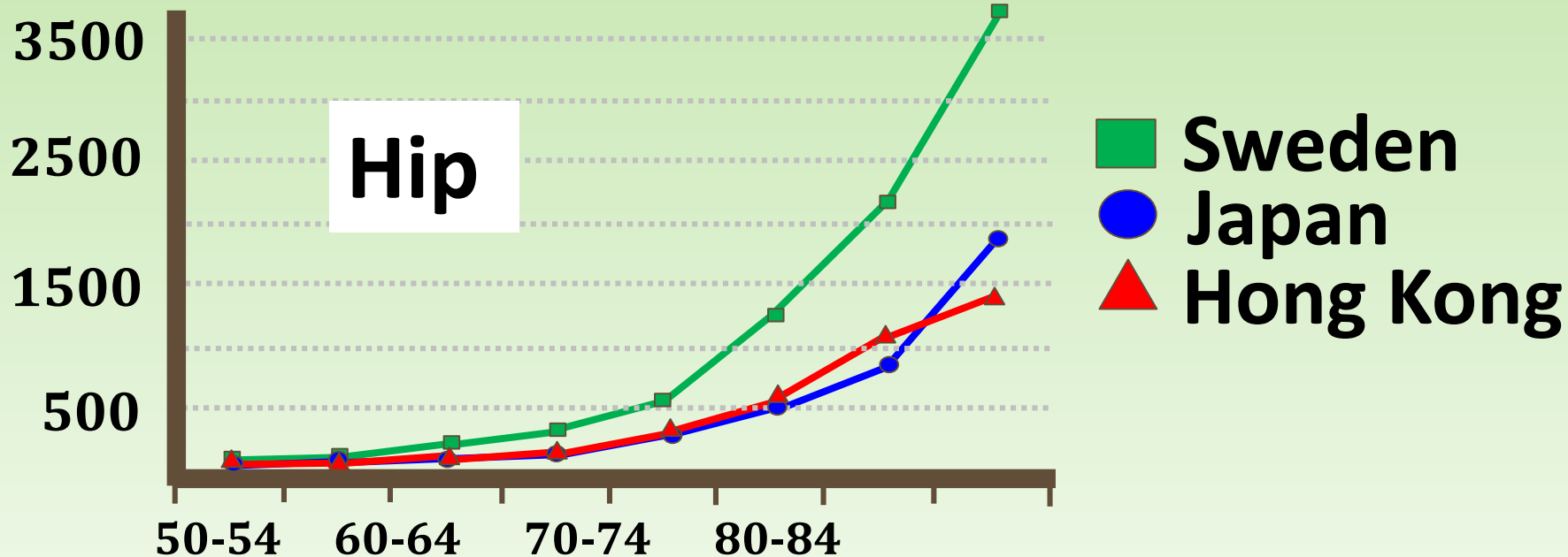


Even where **hip fracture** rates are low, **osteoporosis** is common









EPIC-Oxford 2007 Findings

Vegans were 37% more likely to fracture a bone than meat-eaters or lacto-ovo vegetarians



Calcium Intake in the EPIC-Oxford

| | Calcium |
|------------------|---------|
| Omnivores | 1,057 |
| Pesco-vegetarian | 1,081 |
| Lacto-ovo | 1,087 |
| Vegan | 610 |

Protein protects bone health

- **Improves calcium absorption**
- **Contributes to bone structure**
- **Promotes muscle strength**



Adventist Health Study





We need **protein** and **calcium** for strong bones. And both are in **plants**.

Calcium without cows



Wild greens supplied
abundant calcium to early
humans

The Plant Plate



Virginia Messina, MPH, RD
TheVeganRD.com

All vegan food groups provide calcium

Best Plant Sources of Calcium



Legumes

Tofu
Soybeans

Fruits

Figs
Fortified juices



Nuts/Seeds

Almonds
Almond butter
Tahini



Milks

Any fortified
plant milk



Vegetables

Leafy greens



Calcium from Leafy Greens

Good sources: Bok choy, collards,
kale, turnip greens

Poor sources: Spinach, Swiss chard,
beet greens



7 Habits of Happy, Healthy Vegans

- 1. Eat legumes**
- 2. Choose healthy fats**
- 3. Identify important supplements**
- 4. Eat a rainbow**
- 5. Get adequate calcium**

Characteristics of the Optimal Vegan Diet

- Meets nutrient needs
- Reduces risk for chronic disease
- Practical, easy, realistic
- Appealing

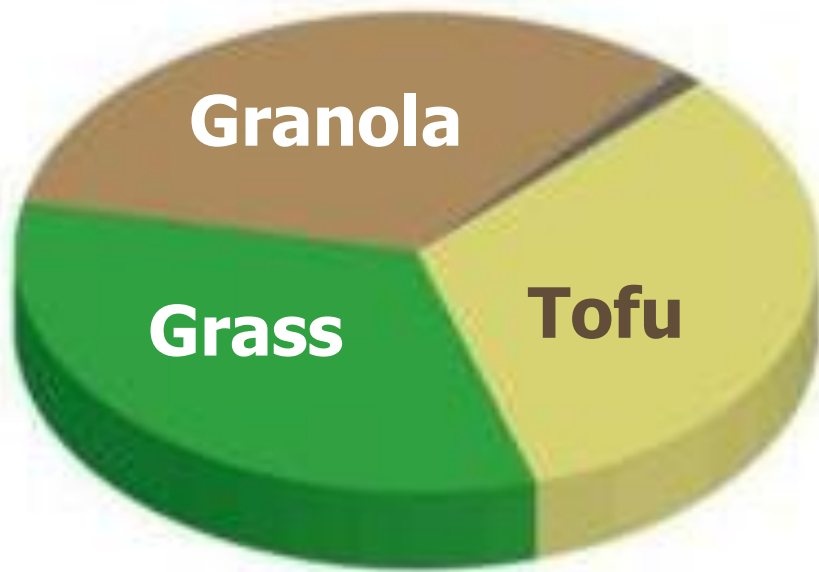
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6. Enjoy vegan foods

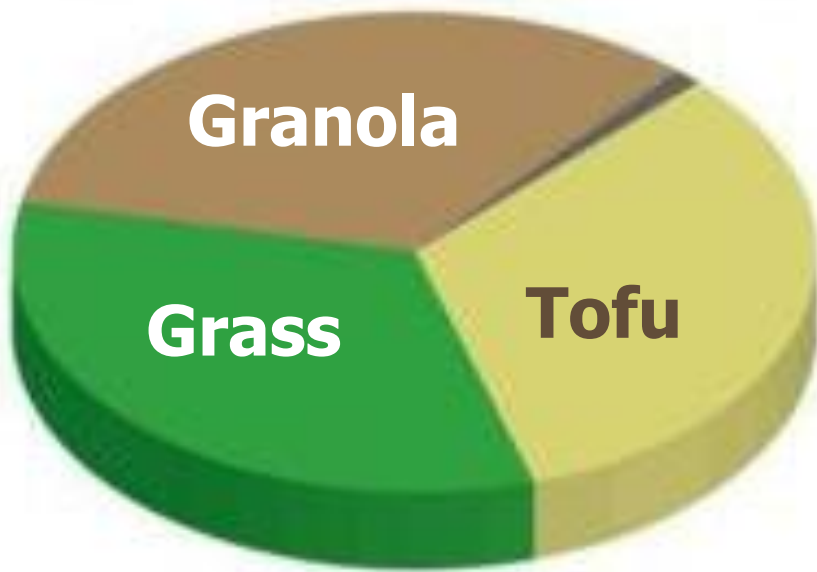


What people think vegans eat



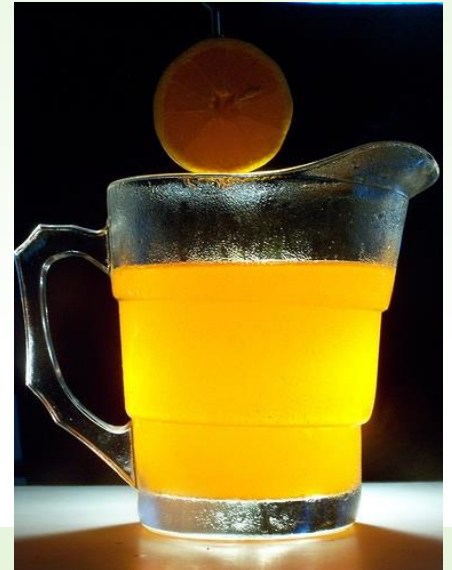
What vegans really eat

What people think vegans eat



- | | | | |
|------------------------|------------------|--------------------|------------------|
| artichokes | cookies* | kale | coconut |
| asparagus | kiwi | raspberries | coconut curry |
| avocados | lasagne* | rice | coconut milk |
| bacon* | lettuce wraps | salsa | cookies* |
| bagels | mac 'n' cheese* | samosas | kiwi |
| bananas | mandarin oranges | sandwiches | lasagne* |
| beans | mangos | seitan | lettuce wraps |
| beef* | marshmallows* | soul food* | mac 'n' cheese* |
| beets | mashed potatoes | soup | mandarin oranges |
| biscuits* | melons | soy milk | mangos |
| bread | Mexican food* | spring rolls* | marshmallows* |
| broccoli | nachos* | stir-fry* | mashed potatoes |
| brownies* | noodles | strawberries | melons |
| Brussels sprouts | onion rings | sushi* | Mexican food* |
| buffalo wings* | oranges | sweet potato fries | nachos* |
| burgers* | pasta* | tabouli | noodles |
| burritos* | pasta | tacos* | onion rings |
| cake* | peaches | tempeh | oranges |
| carrots | peanut butter | Thai food* | pasta* |
| celery | peas | Tofurky | pasta |
| cheese steak sandwich* | peppers | tofu scramble | peaches |
| cheese* | pies* | tomatoes | peanut butter |
| cheesecake* | pineapple | tortilla chips | peas |
| cherries | pizza* | veggie tempura | peppers |
| chili cheese fries* | potato skins* | veggie wraps | pies* |
| chili* | potatoes | everything else* | pineapple |
| Chinese food* | pumpkin | | pizza* |
| | quinoa | | potato skins* |
| | | *vegan version | potatoes |
| | | | pumpkin |







- **Demonizing foods is fear-based nutrition: never, ever eat this food**
- **Science-based nutrition: emphasize certain foods, eat others less frequently, use some foods as occasional treats.**

7. Celebrate Veganism



Findings from EPIC/Oxford

| | Meat eaters | Vegan |
|-----------------------------|--------------------|--------------|
| Total fat intake | 34% | 30% |
| Saturated fat intake | 12% | 5% |
| Blood Cholesterol | 191 | 158 |

Wowza! Stunning Christie Brinkley, 61, Credits Vegan Diet for Youthful Looks



Vegan = Compassion



Vegan = Compassion; Guaranteed



1. Eat legumes

**3 or more servings per day of
beans, peanuts/peanut butter,
soyfoods, quinoa, pistachios**



2. Choose Healthy Fats

- **Omega-3 fats from flaxseeds, walnuts, flax, walnut or canola oil, chia seeds.**
- **DHA/EPA? 200-300 milligrams**
- **Moderate use of higher fat foods like nuts, seeds, avocado and vegetable oils**



3. Supplement Appropriately

- 600 to 1,000 IUs of vitamin D (if sun exposure isn't adequate)
- 25-100 micrograms of vitamin B12
- 90 ug iodine or ¼ tsp iodized salt



4. Eat a Rainbow

- **Vitamin C**
- **Vitamin A**
- **Calcium**



5. Choose Calcium-Rich Foods

Kale, collards, fortified plant milks and juices, tofu, figs, almond butter, tahini.



6. Enjoy Vegan Foods

- **Emphasize whole plant foods**
- **No plant foods are off limits**



7. Celebrate Veganism



- **Vegan diets always deliver on their promise of compassion**
- **Health benefits vary among individuals and are a wonderful bonus**



TheVeganRD.com

@TheVeganRD

ginnymessina@gmail.com

