



Vegetarian Nutrition: Part 2



THE HEINZ ENDOWMENTS
HOWARD HEINZ ENDOWMENT • VIRA I. HEINZ ENDOWMENT

Maris Altieri, RD
Ellen Marie Alonso Street, RD

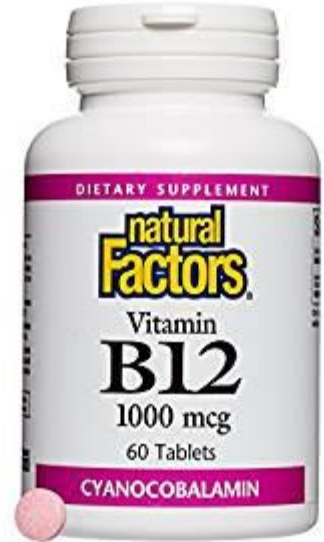
UPMC HEALTH PLAN

Agenda

- Key vitamins & minerals
- Summary of nutritional concepts
- Mechanisms of action in disease prevention & treatment
- Recipe Substitutions
- Additional Resources
- Post-test & wrap up

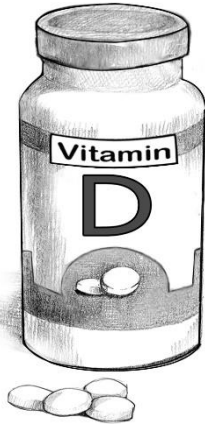
Key Vitamins & Minerals for Vegetarian & Vegan Diets

- **Vitamin B12**



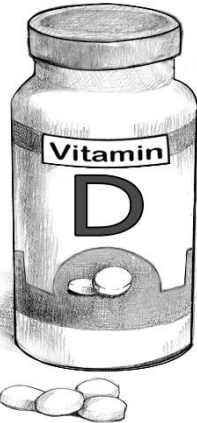
Key Vitamins & Minerals for Vegetarian & Vegan Diets

- Vitamin B12
- Vitamin D



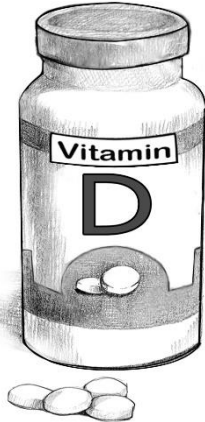
Key Vitamins & Minerals for Vegetarian & Vegan Diets

- Vitamin B12
- Vitamin D
- Calcium



Key Vitamins & Minerals for Vegetarian & Vegan Diets

- Vitamin B12
- Vitamin D
- Calcium
- Iron



Food Sources of Important Nutrients to Consider

Protein

- Beans
- Whole-grains
- Soy products (e.g. tofu, tempeh, soy milk)
- Nuts & nut butters
- Dairy products
- Eggs

Iron

- Beans
- Green leafy vegetables (e.g. kale, collard greens)
- Fortified breads and cereals
- Instant oatmeal
- Nuts & nut butters
- Potatoes (eaten with their skin)
- Enriched pasta
- Dried fruit

Calcium

- Cow's milk
- Fortified soymilk or rice milk
- Leafy green vegetables
- Broccoli
- Beans
- Calcium-fortified orange juice
- Calcium-set tofu
- Almonds and almond butter
- Sesame seeds and sesame butter (e.g. tahini)
- Blackstrap molasses
- Figs

tip

Consuming a good source of vitamin C (e.g. citrus fruits, orange juice, tomatoes) with iron rich foods increases iron absorption.

Vitamin B12

- Vitamin B12-fortified foods (such as nutritional yeast, soymilk, meat analogs, or ready-to-eat cereals. Be sure to check the label.)
- Dairy products
- Eggs

tip

A daily vitamin B-12 supplement of 5 to 10 ug or a weekly B-12 supplement of 2,000 ug may be used to help prevent B12 deficiency..

Vitamin D

- Eggs
- Vitamin D-fortified foods (such as soymilk, cow's milk, orange juice, ready-to-eat cereals)
- Vitamin D is also made in the skin from sunlight

tip

Vegetarians who do not consume vitamin D sources or receive direct sunlight on a regular basis should consider taking a supplement.*

Nutrient Adequacy & Disease Prevention

Key considerations:

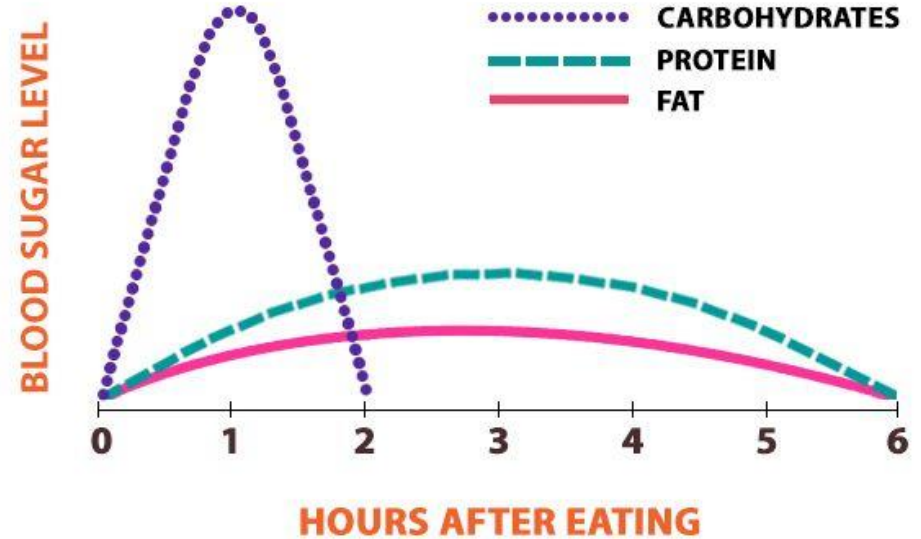
- High phytochemical content
- High fiber
- Variety
- Whole foods > processed foods
- Low cholesterol & saturated fat content
- *Diet personalization*



Blood Glucose Control

Sources and ratios of macronutrients are **important**

- Protein & unsaturated fats
- Fiber
- Complex carbohydrates
- Limit non-starchy carbohydrates



Blood Pressure Control

- High fiber plant foods
 - Whole grains, non-starchy vegetables, nuts & seeds
- MUFA & PUFA
 - Limit animal fats, coconut & palm oil
- More whole foods
 - Limit processed foods (sodium)



Transitioning to a Vegetarian Diet:

- Eat more plant-foods you already like
- Replace or eliminate animal foods you don't eat often
- You don't have to give up all your favorite animal foods immediately
- Explore familiar and unfamiliar grocery stores and ingredients
- Stock your kitchen with healthy plant-based whole foods
- Involve the people around you



Ingredient Swaps for Best Nutritional Value



Meat - tofu, seitan, tempeh, textured soy protein, quinoa, beans

Eggs – Bananas, applesauce, ground flaxseeds, scrambled tofu

Gelatin - Corn starch, agar, carrageenan, arrowroot powder, xanthan gum

Honey - Agave nectar, maple syrup

Cheese - Nutritional yeast flakes, soy or nut based cheese

Cow's milk – soy milk*, oat milk, nut and seed milk

Yogurt - Yogurt made with soy milk*, rice milk or coconut milk

Butter: Olive oil, canola oil, coconut oil (for baking)

* Most equivalent in nutrient value

You might be surprised how close to a vegan diet you already are. You probably already have some of these staples. So let's explore basic meal ideas and easy swaps.

Breakfast

IF YOU NORMALLY HAVE:

TRY THIS INSTEAD:

Cereal or coffee with dairy milk or creamer

Cereal or coffee with nondairy milk

Scrambled eggs

Scrambled tofu

Bacon or sausage

Veggie bacon or veggie sausage

Doughnut or muffin

Cinnamon raisin toast or whole-wheat toast with jam

Bagel with cream cheese

Bagel with jam or hummus

Lunch or Dinner

IF YOU NORMALLY HAVE:

TRY THIS INSTEAD:

Turkey sandwich with lettuce, tomato, and mayo

Sandwich with hummus or veggie deli slices with lettuce and tomato

Chicken noodle soup

Lentil soup or minestrone

Hamburger

Black bean or portobello burger

Cheese pizza

Roasted vegetable pizza

Spaghetti with meat sauce

Spaghetti with tomato sauce and chunky vegetables, or pasta primavera

Free Resource:

Physicians
Committee for
Responsible
Medicine Vegan
Starter Kit

Who supports plant-based interventions?

- Harvard Medical School
- The Physicians Committee for Responsible Medicine
- Dietitians of Canada
- The British National Health Service
- The British Nutrition Foundation
- The Dietitians Association of Australia
- The National Health and Medical Research Council
- The Mayo Clinic
- The Heart and Stroke Foundation of Canada
- British Dietetic Association
- NYC Health + Hospitals – Bellevue
- Plant-Based Lifestyle Medicine Program

Vegan Blogs and Resources

Information on the Health Benefits of Vegetarian Diets:

- [Position of the Academy of Nutrition and Dietetics: Vegetarian Diets](#)
- [Academy of Nutrition and Dietetics Vegetarian Practice Group](#)
- [Physicians Committee For Responsible Medicine](#)

Vegetarian Restaurant Search:

- [HappyCow's Vegetarian Guide To Restaurants & Health Food Stores](#)

Recipe Blogs:

- [The Plant Based RD](#)
- [Jessica in the Kitchen](#)
- [Cook with Manali](#)
- [Rachel Ama](#)
- [Minimalist Baker](#)
- [NYT Cooking](#)

Post-test

1. List three plant-based protein sources
2. Identify one source of plant-based omega-3 fatty acids
3. Describe food-forward approaches to ensuring adequate iron consumption
4. Share one of your favorite vegetarian meals 😊

Sources

1. Pawlak R; Vegetarian Nutrition Dietetic Practice Group. RD resources for professionals: vitamin B12 in vegetarian diets. <https://vndpg.org/docs/rd-resources/B12-RD.pdf>. Published 2012. Accessed February 2, 2018.
2. Vitamin D fact sheet for health professionals. National Institutes of Health Office of Dietary Supplements website. <http://ods.od.nih.gov/factsheets/VitaminD-HealthProfessional>. Reviewed June 24, 2011. Accessed March 6, 2014.
3. Palacios C. The role of nutrients in bone health, from A to Z. *Crit Rev Food Sci Nutr*. 2006;46(8):621-628.
4. Craig WJ, Mangels AR; American Dietetic Association. Position of the American Dietetic Association: vegetarian diets. *J Am Diet Assoc*. 2009;109(7):1266-1282.
5. Seidelmann, S. B., Claggett, B., Cheng, S., Henglin, M., Shah, A., Steffen, L. M., ... Solomon, S. D. (2018). Dietary carbohydrate intake and mortality: a prospective cohort study and meta-analysis. *The Lancet Public Health*, 3(9), e419-e428.  [https://doi.org/10.1016/S2468-2667\(18\)30135-X](https://doi.org/10.1016/S2468-2667(18)30135-X)

Thanks!

Any questions?

You can find us at:

letsmove@phipps.conservatory.org

letsmovepittsburgh.org

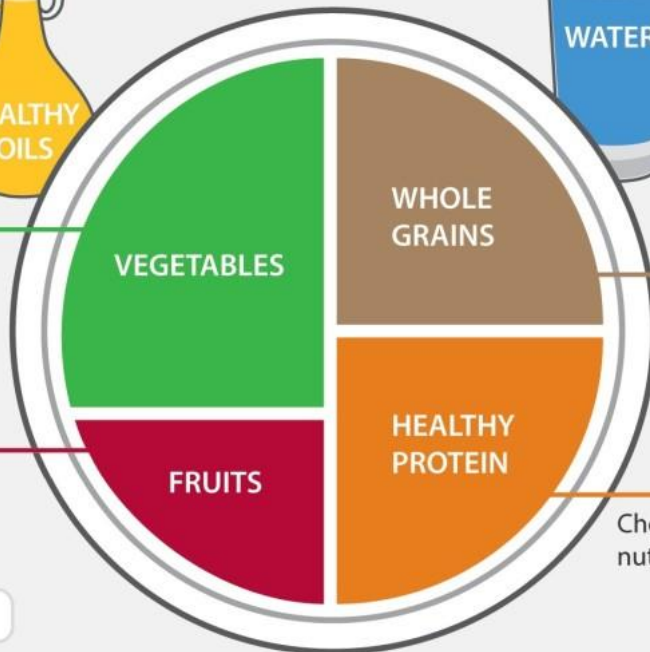
HEALTHY EATING PLATE



Use healthy oils (like olive and canola oil) for cooking, on salad, and at the table. Limit butter. Avoid trans fat.



Drink water, tea, or coffee (with little or no sugar). Limit milk/dairy (1-2 servings/day) and juice (1 small glass/day). Avoid sugary drinks.



The more veggies – and the greater the variety – the better. Potatoes and French fries don't count.

Eat a variety of whole grains (like whole-wheat bread, whole-grain pasta, and brown rice). Limit refined grains (like white rice and white bread).

Eat plenty of fruits of all colors.

Choose fish, poultry, beans, and nuts; limit red meat and cheese; avoid bacon, cold cuts, and other processed meats.



STAY ACTIVE!

© Harvard University



Harvard T.H. Chan School of Public Health
The Nutrition Source
www.hsph.harvard.edu/nutritionsource

Harvard Medical School
Harvard Health Publications
www.health.harvard.edu



Harvard School of
Public Health

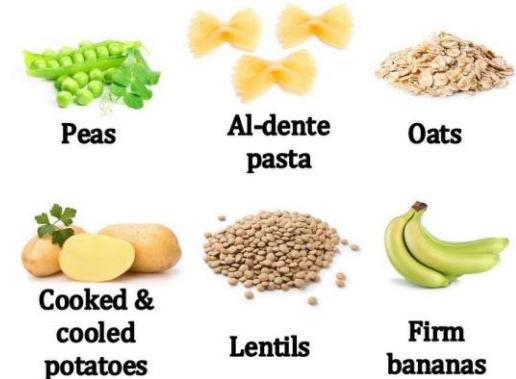
Fiber

- Prebiotics
- Glycemic control
- Satiety
- Cholesterol absorption
- No UL

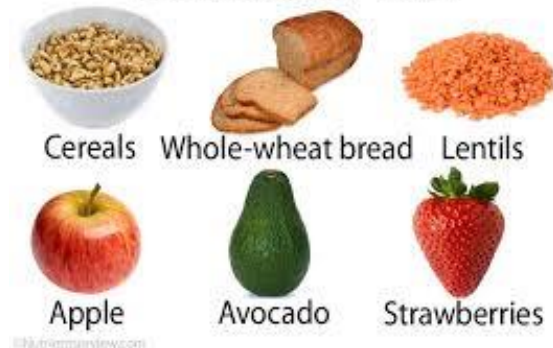
Soluble Fiber



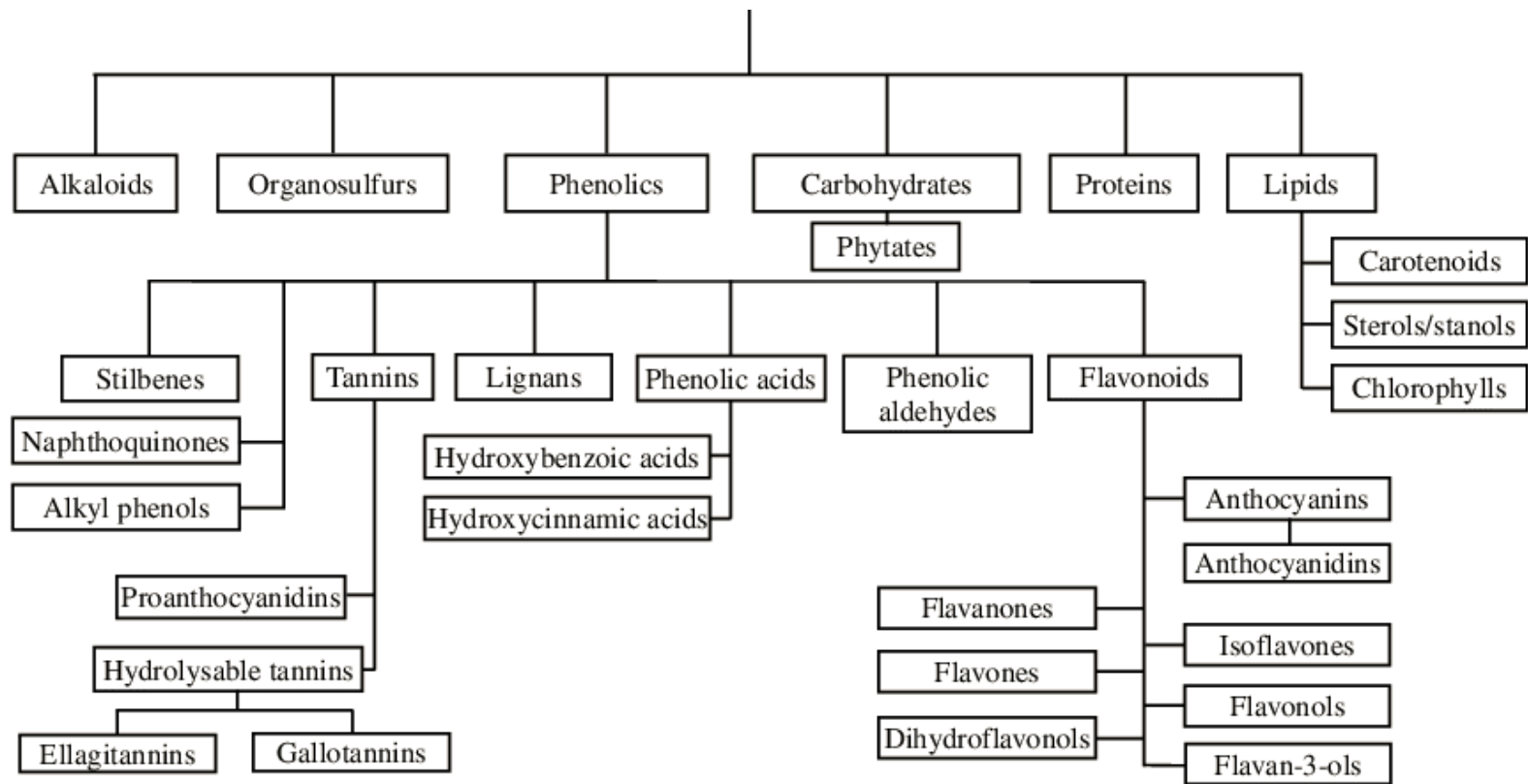
Sources of resistant starch



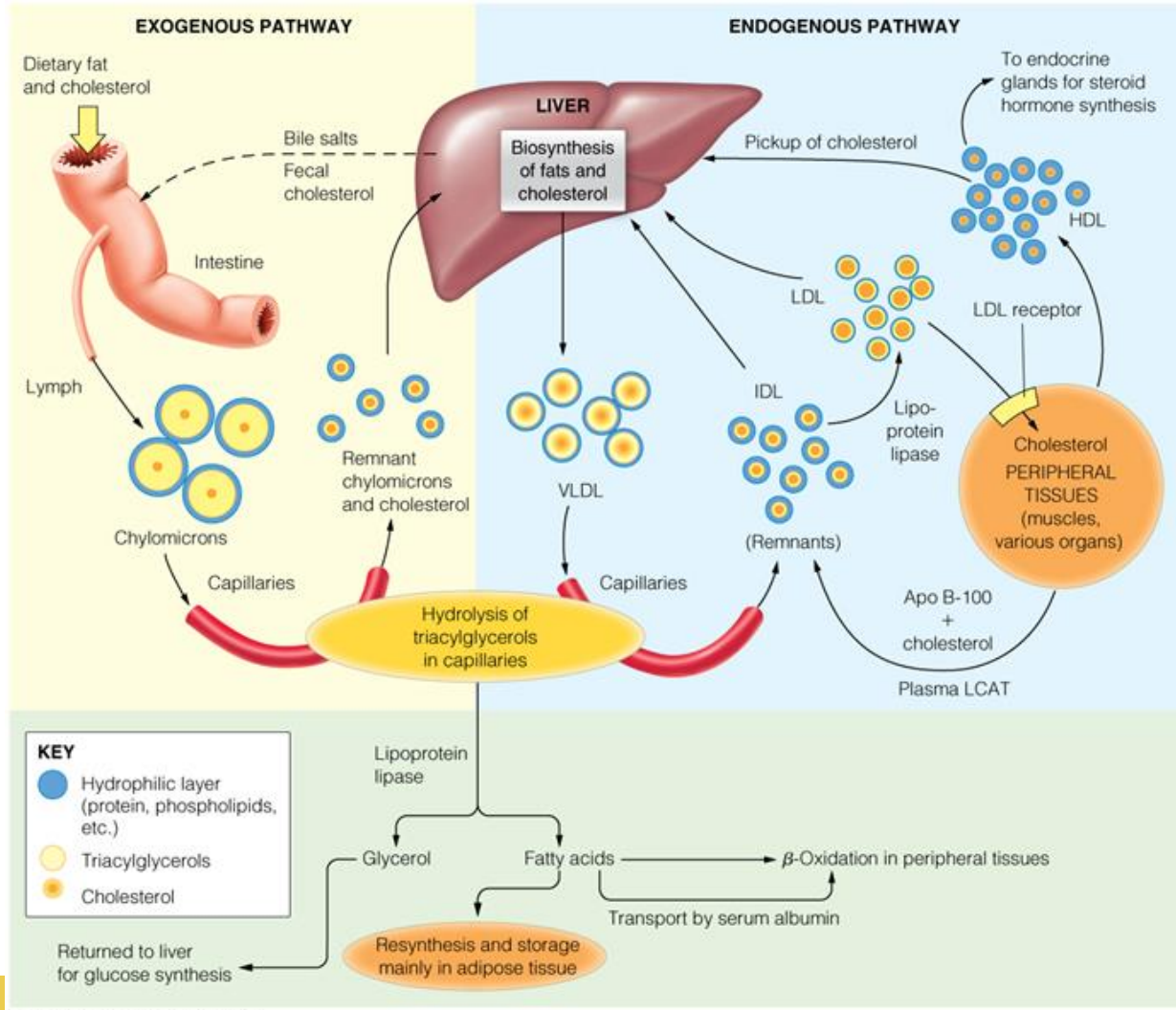
Insoluble Fiber



Phytochemicals



Cholesterol Absorption



(Han et al., 2019). *Food & nutrition research*