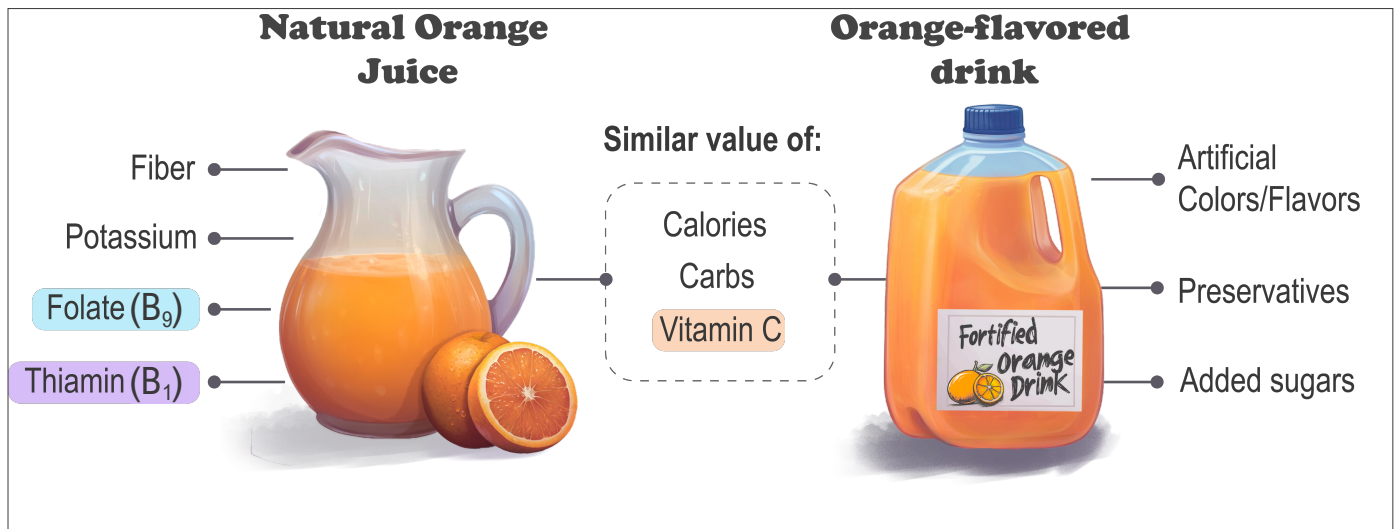


TOPIC: DIETARY GUIDELINES FOR VITAMINS

Dietary Guidelines for Vitamins

- ◆ Every vitamin has an RDA/AI & UL (see appendix).
- ◆ Here are some general tips to consume vitamins adequately:
 - Eat plenty of fruits & vegetables, whole grains, & lean dairy products.
 - Consume a wide _____ of different nutrient-dense foods to cover all dietary requirements.
 - Strategically consume fortified foods; can be a good alternative if there are certain foods you can't eat.



PRACTICE

Which of the following statements about fortified foods is true?

- a) Fortified foods are an essential part of a healthy diet.
- b) It's impossible to overconsume vitamins by eating a lot of fortified food.
- c) Fortified foods can be helpful to meet your RDA for vitamins, especially for people with specific dietary needs.
- d) All of the above.

PRACTICE

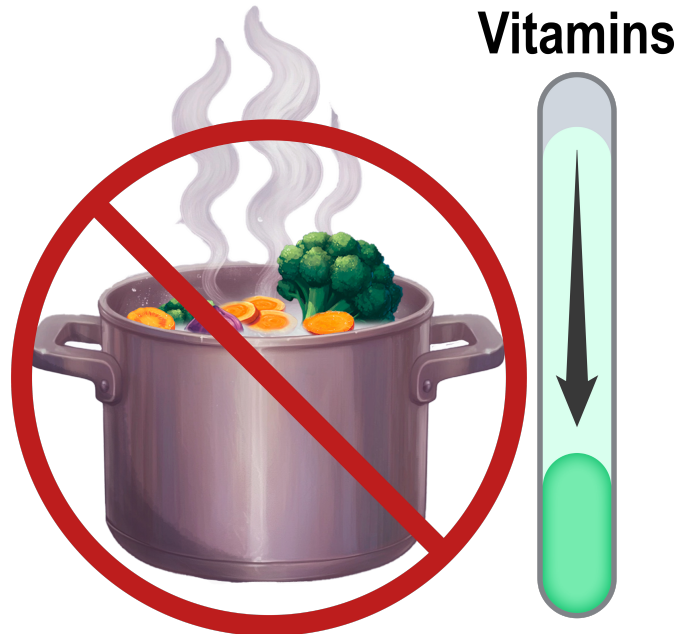
Who would most likely get the most benefit from adding fortified food to their diet?

- a) Rajesh, a vegetarian who eats cereal fortified with beta-carotene.
- b) Brian, who is lactose intolerant and drinks orange juice fortified with vitamin D.
- c) Chris, who eats a healthy balanced diet and eats yogurt fortified with vitamin B₁₂.
- d) Nikki, an athlete who eats a well-rounded, nutrient-dense diet but likes pasta fortified with several B vitamins.

TOPIC: DIETARY GUIDELINES FOR VITAMINS

Guidelines to Preserve Vitamins in Foods

- ◆ Fat-soluble vitamins tend to be _____ stable than water-soluble vitamins, which are very sensitive.
 - Foods exposed to air, water, light, pH changes, or heat immediately begin to _____ their vitamins.
 - Keep fruits/vegetables stored in _____ containers & only cut before cooking/serving.
 - Cook vegetables in a _____ amount of water or microwave, steam, or stir-fry them.
 - Store vegetables in a refrigerator, reduce cooking-time/heat-exposure, & _____ *boiling* them.



Vitamins

EXAMPLE

Drew is planning an evening picnic & wants to bring a watermelon. How should he prepare the watermelon to prevent the loss of nutrients, maximizing its vitamin content?

- a) Cut it and spray water on it in the morning.
- b) Cut it and spray oil on it in the morning.
- c) Cut it immediately before serving.
- d) Cut it an hour before serving, then leave it out in the open.

PRACTICE



Which of the following preparation methods for vegetables will retain the most vitamins?

- a) Boiling in lots of water.
- b) Stir frying in oil.
- c) Scorching (charring/burning).
- d) Slow cooking in broth, then straining the liquid.

TOPIC: DIETARY GUIDELINES FOR VITAMINS

Vitamin Supplements

- ◆ Vitamin supplementation should be approached with *caution, strategy, & guidance* from a healthcare professional.
 - Vitamin supplements should _____ replace a healthy diet.
 - Unlike food, supplements are more likely to put you at risk of _____ *consuming* vitamins (can be toxic).
- ◆ Vitamin supplements should primarily be used by certain groups that may struggle to consume vitamins via diet.
 - E.g. - _____ women, infants, vegans, lactose intolerant people, people with certain diseases, etc.

Overconsumption of Vitamin Supplements	
	Fat-Soluble Vitamins _____ – causes nausea, digestive issues, & potentially harmful interactions with medications.
	Water-Soluble Vitamins Excess H ₂ O-soluble vitamins _____ in urine before body can use them – a waste of money!

EXAMPLE

Complete the following survey to assess your consumption of fat-soluble vitamins.

1	Do you regularly consume dairy products or fortified, plant-based alternatives?	
2	Do you regularly eat leafy green vegetables (such as kale, spinach, broccoli)?	
3	Do you regularly eat fatty fish (e.g. salmon, sardines, mackerel)?	
4	Do you regularly eat or use vegetable oils (e.g. olive oil) in your cooking?	
5	Do you regularly eat carrots, sweet potatoes, or any other orange/yellow vegetables?	

If you answered mostly **yes**, you're likely meeting your fat-soluble vitamin needs.

If you answered mostly **no**, consider meeting with a dietitian to help you boost your intake.

TOPIC: DIETARY GUIDELINES FOR VITAMINS

PRACTICE

Hypervitaminosis, or vitamin toxicity, is extremely rare from consuming a normal, balanced diet, and usually only occurs from mega-dosing (consuming large amounts of) vitamin supplements. Which of the following scenarios is most likely to lead to hypervitaminosis?

- a) Spending a single day at the beach exposed to the sun is likely to lead to vitamin D toxicity.
- b) Consuming a large portion of brown rice and then taking vitamin B1 (thiamin) supplements.
- c) Consuming an excessive amount of liver, beef, and eggs & regularly taking vitamin A supplements.
- d) Consuming an excessive number of oranges and then regularly taking vitamin C supplements.

PRACTICE

Who would likely benefit the most from taking vitamin supplements?

- a) A healthy middle-aged man who eats a well-balanced, nutrient-dense diet.
- b) A pregnant woman who has been advised by her doctor to take folate & iron supplements.
- c) An elite athlete who eats a well-balanced diet but takes some supplements to enhance their performance.
- d) A teenager who sometimes skips breakfast but has a healthy diet overall.

PRACTICE

Who is likely at the highest risk of toxicity due to overconsumption of vitamins?

- a) A vegan who strategically takes vitamin D supplements because they don't eat any dairy, fish, or eggs.
- b) Someone who is severely lactose-intolerant but consumes some other vitamin D-fortified foods.
- c) Someone who eats a balanced diet but takes vitamin B & C supplements to "boost their performance".
- d) Someone who eats a balanced diet but takes vitamin A & D supplements to "boost their health".