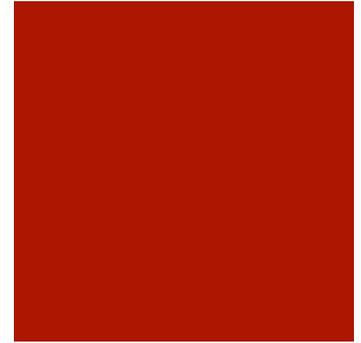




Nutrition and Aging

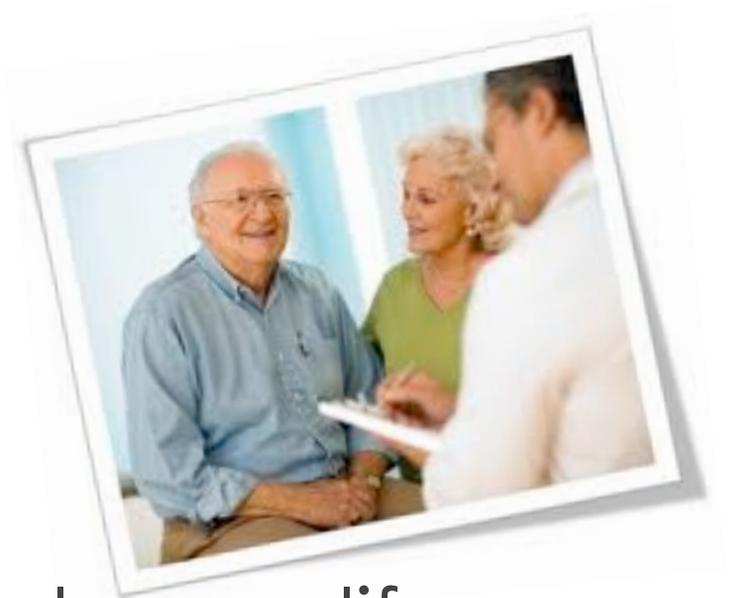
Megan Omstead RD CDE and Shivon Sanduja RD

Agenda



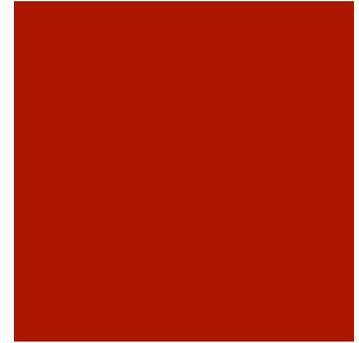
- Nutrition needs for healthy aging
- Chronic disease prevention
- Mediterranean Diet
- Nutritional supplements
- Label Reading
- Meal Planning
- Questions and Answers

Seniors' Health



- Canadians are enjoying longer life spans and better health than ever before
- More than 41% of Canada's seniors are in very good or excellent health

Nutrition needs for healthy aging



1. Fewer calories but more nutrients

- Poor absorption of B12, Vitamin D, Calcium
- Increased absorption of Iron and Vitamin A

Recommendations:

- 3 servings of low fat Milk and Alternatives/day
- Include meat, fortified grain products and fruits and vegetables

Nutrition needs for healthy aging



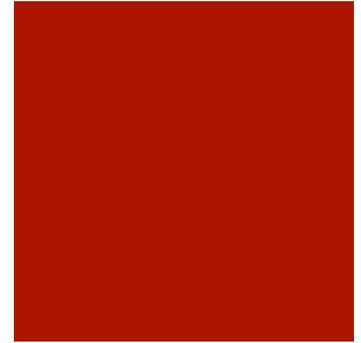
2. Bone mineral density loss as we age

- Decrease in Calcium absorption from foods
- Increase in Calcium loss from bones
- Reduction in synthesis of Vitamin D in skin and kidneys
- Less sun exposure

Recommendations:

- 3 servings of low fat Milk and Alternatives/day
- Weight bearing exercises

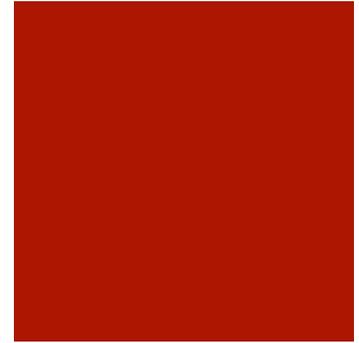
Nutrition needs for healthy aging



3. Digestive system problems associated with chronic disease

- Gastritis: low acid production and bacteria overgrowth resulting in low iron and B12 absorption
- Gastro Esophageal Reflux Disease (GERD): age can weaken the esophageal sphincter, reduced saliva production
- Delayed gastric emptying: early satiety

Nutrition needs for healthy aging



Recommendations:

- Gastritis- ensure normal iron and B12 status
- GERD
 - Avoid trigger foods (caffeine, spicy foods, citrus, tomato, fried foods)
 - Avoid laying down 1-2 hrs after eating
- Delayed stomach emptying
 - Small frequent meals
 - Sip liquids between meals not with meals

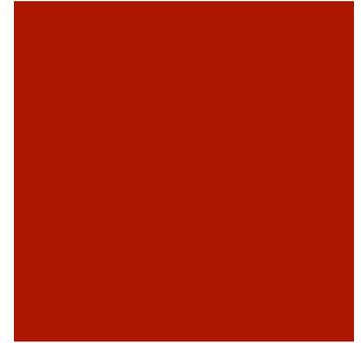
Nutrition needs for healthy aging



4. Sensory changes as we age

- Taste changes caused by chronic disease, medications, decreased saliva production
- Decreased sensitivity to salt
- Olfactory changes: 50% >65 and 75% >80 have impaired sense of smell
 - Results in ~100cals reduction in intake/day
 - More difficult to detect spoilage

Nutrition needs for healthy aging



Recommendations:

- Taste:
 - Seasoning foods well without salt
 - Try new foods
- Smell: Food Safety
 - Don't cross contaminate: separate raw and cooked foods
 - Cook foods to a safe temperature
 - Refrigerate cooked foods within 2 hours
 - When in doubt, throw it out!

Nutrition needs for healthy aging



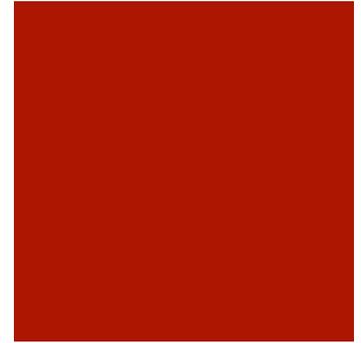
5. Poor oral health can lead to poor nutrition

- Thickened and reduced saliva
- Tooth and bone loss
- Ill-fitting dentures

Recommendations:

- Drink plenty of water for hydration
- Practice good oral care and have regular dental check ups
- Have dentures refitted as needed

Chronic Disease Prevention



Heart Disease

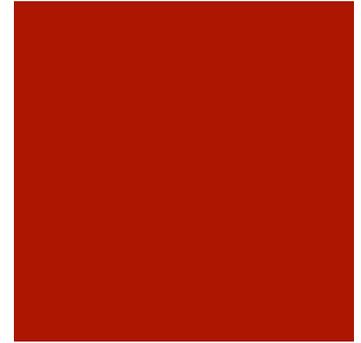
- Approx. 75% of adults >65 have heart disease

Risk Factors:

- High blood pressure
- High cholesterol
- Diabetes
- Obesity



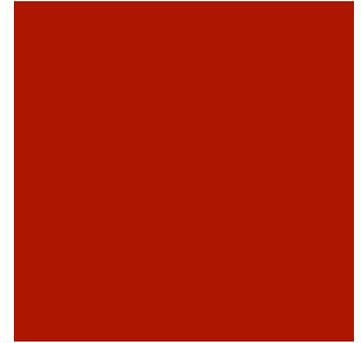
Chronic Disease Prevention



Recommendations:

- Reduce saturated and trans fats
- Increase healthy fats
- Increase dietary fiber
- Limit salt
- Increase aerobic activity i.e. walking

Chronic Disease Prevention



Type 2 Diabetes

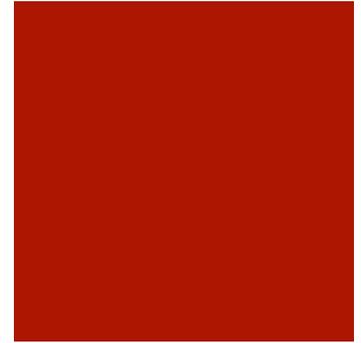
- 1 in 5 adults >65 have diabetes

Risk Factors:

- Age over 40 increases risk
- Overweight
- Ethnicity
- Family History
- Sedentary



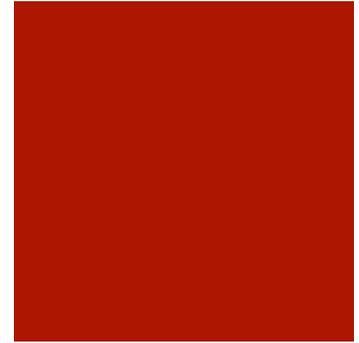
Chronic Disease Prevention



Recommendations:

- Achieve and maintain a healthy weight
- High fiber diet
- Increase physical activity
- Limit portions of carbohydrates to $\frac{1}{4}$ plate at meals

Chronic Disease Prevention

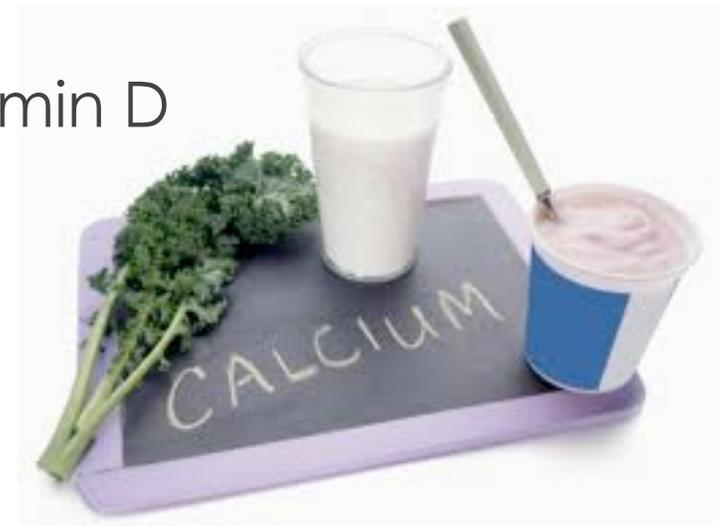


Osteoporosis

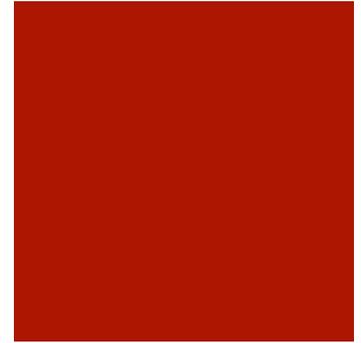
- 1 in 4 women over 50 have osteoporosis
- 1 in 8 men over 50 have osteoporosis

Risk Factors:

- Post-menopausal women
- Poor intake of calcium and vitamin D
- Hx of fractures
- Family history



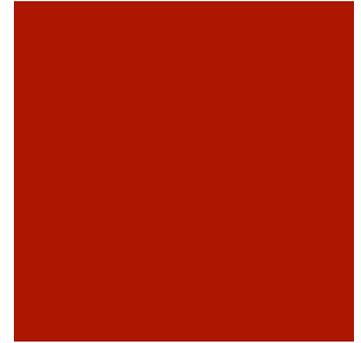
Chronic Disease Prevention



Recommendations:

- 3 servings milk and alternatives/day
- Adequate Vitamin D intake
- Weight bearing activity

Chronic Disease Prevention

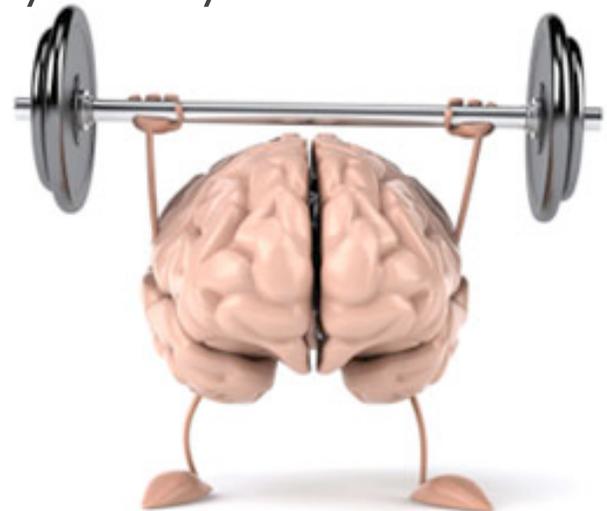


Dementia

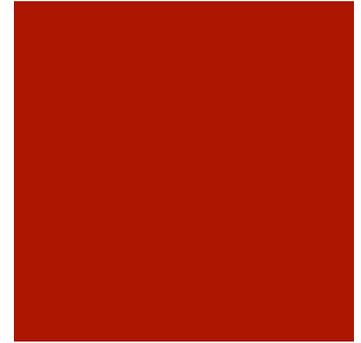
- 1 in 11 Canadians over 65 has dementia

Risk Factors:

- Risk for dementia doubles every five years after age 65
- Poor physical fitness
- Diabetes
- High Stress



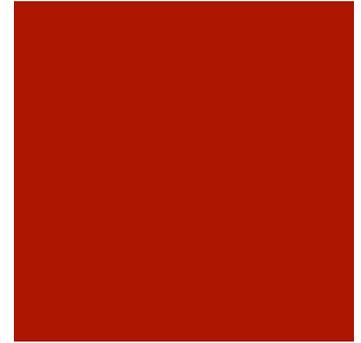
Chronic Disease Prevention



Recommendations:

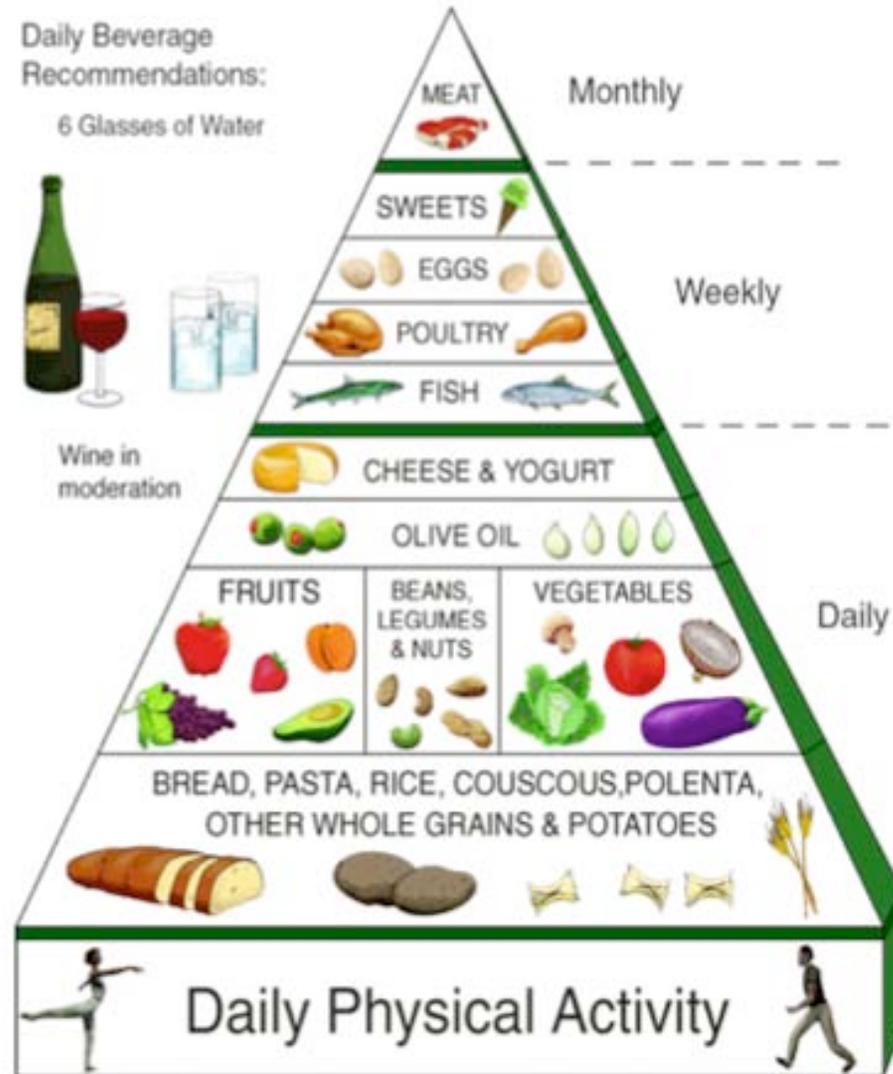
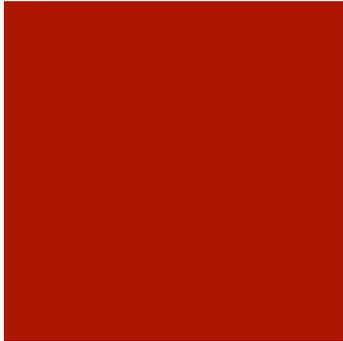
- Mediterranean diet may protect against Alzheimer's disease and cognitive impairment
- Antioxidant-rich foods: colourful fruits and vegetables
- Healthy Fats: omega-3
- Intellectual stimulation

The Mediterranean Diet

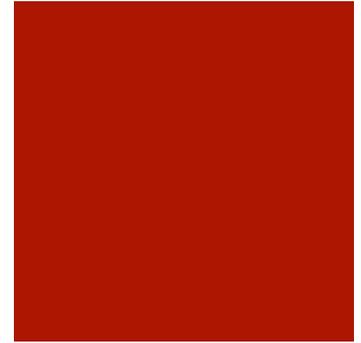


- Lifestyle vs. 'diet'
- Associated with improved memory, reduced risk of mild cognitive impairment and dementia (48% lower risk)
- Lowered levels of inflammatory markers
- 70% reduction in mortality in people who had already had heart attack

The Mediterranean Diet

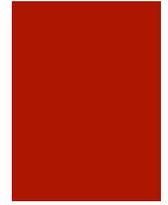


Antioxidants



- Antioxidants are nutrients in food that protect your cells from damage from free radicals
- Free radicals are unstable molecules that can damage your cells. Your body creates them when you digest food
- This cell damage may increase your risk of cancer, heart disease, cataracts, diabetes, or infections. Free radicals may also affect brain function.

Antioxidants



Many nutrients are antioxidants:

- Vitamin A
- Vitamin C
- Vitamin E
- Anthocyanins
- Beta carotene
- Catechins
- Ellagic acid
- Lutein
- Lycopene
- Resveratrol
- Selenium



Omega-3 Fatty Acids



- Polyunsaturated fatty acids: ALA, DHA & EPA
- Essential Fatty Acids
- Reduce heart disease risk & RA symptoms, may help prevent dementia
- Health Canada: F=1.1 grams ALA per day
M=1.6 grams ALA per day

Omega-3 Fatty Acids



- ALA: flaxseed, hemp seeds, canola oil, soybean oil, walnuts
- EPA & DHA: 2 servings of fatty fish per week
→ salmon, mackerel, herring, sardines, trout
- To help the body change ALA to DHA and EPA, avoid foods high in saturated and trans fats
- Supplements may be necessary

Supplements to Consider



If you are not meeting your nutrition needs through your diet:

- Vitamin B12 = 2.4mcg/day*
- Vitamin D = 800-2000 IU/day**
- Calcium = 1200mg/day** from all sources
- Always discuss supplementation with your primary care provider

*Health Canada

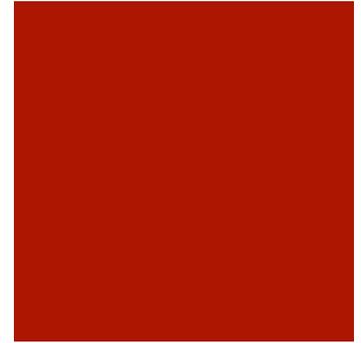
** Osteoporosis Canada



Plate Model



Grains and Starches



- Key Message: Choose high fiber sources
- Portion: $\frac{1}{4}$ plate
- Healthy Choices:
 - Brown rice
 - Whole grain breads and cereals
 - Quinoa, bulgar, and barley
 - Sweet potato



Vegetables and Fruits



- Key Message: Choose a variety of colours
- Portion: $\frac{1}{2}$ plate or more for Vegetables and 1 medium fruit (fist size)
- Healthy Choices:
 - Green: Spinach, kale, salad greens, broccoli
 - Orange: Carrots, oranges, peppers
 - Red: Berries, tomatoes
 - Purple: Eggplant

Protein



- Key Message: Choose lower fat sources
- Portion: meats aim for a palm size
- Sources:
 - Skinless poultry
 - Fatty fish (salmon, sardines, trout, mackerel)
 - Tofu, nuts, seeds, nut butters, lentils and legumes
 - Eggs
 - Limit red meat to 1-2x/week (trim fat)

Fats

- Key Message: Choose unsaturated fats
- Portion: up to 3 Tbsp per day
- Sources:
 - Plant-based oils (Olive, canola, flax seed)
 - Non-hydrogenated margarines (Becel)
 - Avocado
 - Low fat salad dressings

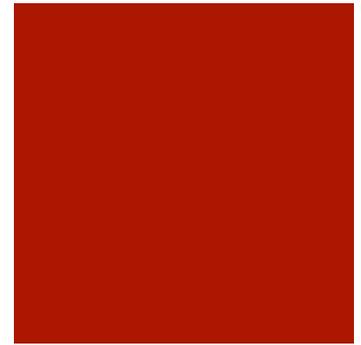


Milk and Alternatives



- Key Messages: Choose low fat source
- Portion: 1 cup milk or $\frac{3}{4}$ cup yogurt
- Sources:
 - Skim or 1% cow's milk
 - Unsweetened fortified soy or almond milk
 - Low fat plain yogurt (try Greek yogurt)
 - Fat free flavoured yogurt

Types of Hunger



Stomach



Mouth



Heart

Eating Mindfully

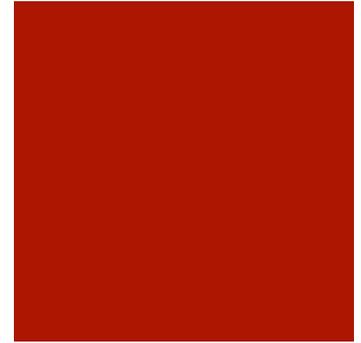
1. Identify the type of hunger
2. Eliminate distractions
3. Be in the moment
4. Reflect on your meal
5. Slow down
6. Assess your fullness
7. Stop when satisfied





FACT
OR
MYTH
?

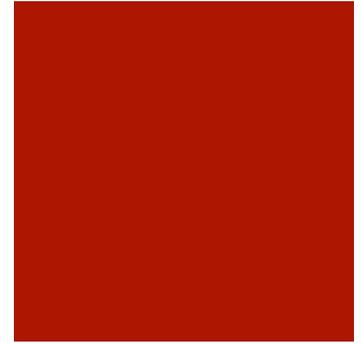
Fact or *Myth*



As we age we need less calories in
our diet

FACT

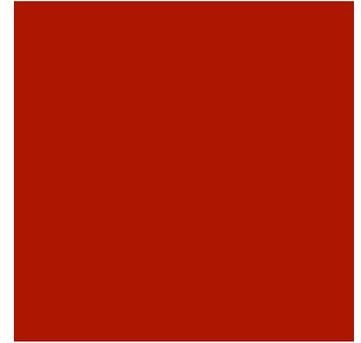
Fact or *Myth*



“Multi-grain” is the same as “whole grain.”

MYTH

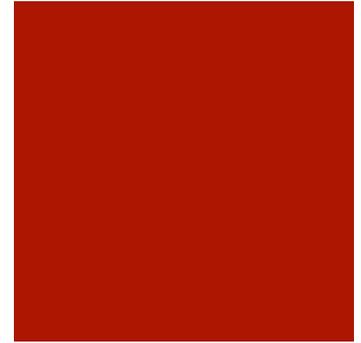
Fact or *Myth*



Fruit has too much sugar to be healthy.

MYTH

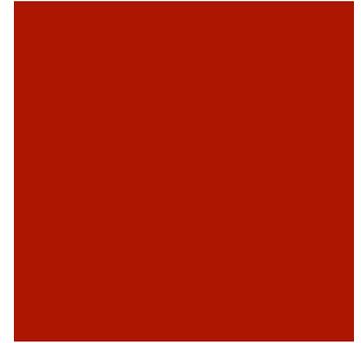
Fact or Myth



Only people with high blood pressure need to limit how much sodium they eat.

MYTH

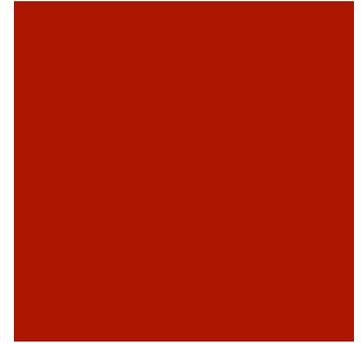
Fact or *Myth*



The best way to limit your sodium intake is to stop using the salt shaker.

MYTH

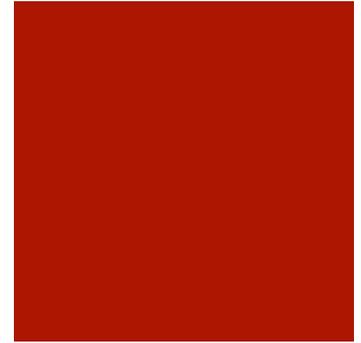
Fact or Myth



A calcium supplement is recommended if you are not eating enough calcium-rich foods.

FACT

Fact or *Myth*



You need vitamin and mineral supplements to be healthy.

MYTH

Label Reading 101

Serving Size — Make sure this matches up with what you're eating. If you eat six crackers, you'd triple all the numbers that follow!

Nutrition Facts	
Serving Size 2 crackers (14 g)	
Servings Per Container About 21	
Amount Per Serving	
Calories 60	Calories from Fat 15
% Daily Value*	
Total Fat 1.5g	2%
Saturated Fat 0g	0%
Trans Fat 0g	
Cholesterol 0mg	0%
Sodium 70mg	3%
Total Carbohydrate 10g	3%
Dietary Fiber Less than 1g	3%
Sugars 0g	
Protein 2g	
Vitamin A 0%	Vitamin C 0%
Calcium 0%	Iron 2%

* Percent Daily Values are based on a 2,000 calorie diet. Your daily values may be higher or lower depending on your calorie needs:

	Calories:	2,000	2,500
Total Fat	Less than	65g	80g
Sat Fat	Less than	20g	25g
Cholesterol	Less than	300mg	300mg
Sodium	Less than	2400mg	2400mg
Total Carbohydrate		300g	375g
Dietary Fiber		25g	30g

Nutrients — Limit your intake of the ones in red to help prevent diseases, and make sure you get enough of the nutrients, vitamins, and minerals in blue.

Calories — Try to balance the number you eat with the number you use every day.

% Daily Value — Generally speaking, 5% or less is fairly low and 20% or more is high. The label numbers are based on a 2,000-calorie diet.



Which product has more fibre?

Product 1		Product 2	
Nutrition Facts Per 2 slices (64 g)		Nutrition Facts Per 2 slices (64 g)	
Amount	% Daily Value	Amount	% Daily Value
Calories 150		Calories 140	
Fat 1.5 g	2 %	Fat 1.5 g	2 %
Saturated 0.4 g + Trans 0.2 g	3 %	Saturated 0.4 g + Trans 0.2 g	3 %
Cholesterol 0 mg		Cholesterol 0 mg	
Sodium 290 mg	12 %	Sodium 290 mg	12 %
Carbohydrate 27 g	9 %	Carbohydrate 26 g	9 %
Fibre 1 g	4 %	Fibre 3 g	12 %
Sugars 2 g		Sugars 2 g	
Protein 5 g		Protein 5 g	
Vitamin A 0 %	Vitamin C 0 %	Vitamin A 0 %	Vitamin C 0 %
Calcium 4 %	Iron 10 %	Calcium 4 %	Iron 10 %

Health Canada,
2012

Which yogurt is better?



Product 1

Nutrition Facts	
Per container (175 g)	
Amount	% Daily Value
Calories 170	
Fat 4.5 g	7 %
Saturated Fat 3.5 g	18 %
+ Trans Fat 0 g	
Cholesterol 10 mg	
Sodium 85 mg	4 %
Carbohydrate 27 g	9 %
Fibre 0 g	0 %
Sugars 26 g	
Protein 6 g	
Vitamin A 15 %	Vitamin C 0 %
Calcium 20 %	Iron 0 %

Product 2

Nutrition Facts	
Per container (175 g)	
Amount	% Daily Value
Calories 130	
Fat 0.5 g	1 %
Saturated Fat 0.3 g	2 %
+ Trans Fat 0 g	
Cholesterol 4 mg	
Sodium 125 mg	5 %
Carbohydrate 26 g	8 %
Fibre 0 g	0 %
Sugars 26 g	
Protein 6 g	
Vitamin A 8 %	Vitamin C 4 %
Calcium 25 %	Iron 0 %

Which snack is better?



Nutrition Facts	
Per 4.5 cups (50 g)	
Amount	% Daily Value
Calories 290	
Fat 20 g	31 %
Saturated Fat 3.5 g + Trans Fat 5 g	43 %
Cholesterol 5 mg	
Sodium 470 mg	20 %
Carbohydrate 25 g	8 %
Fibre 5 g	20 %
Sugars 2 g	
Protein 4 g	
Vitamin A 15 %	Vitamin C 0 %
Calcium 4 %	Iron 8 %

Buttery Popcorn



Nutrition Facts	
Per 27 chips (50 g)	
Amount	% Daily Value
Calories 270	
Fat 13 g	20 %
Saturated Fat 2.5 g + Trans Fat 2 g	23 %
Cholesterol 0 mg	
Sodium 250 mg	10 %
Carbohydrate 52 g	11 %
Fibre 4 g	16 %
Sugars 5 g	
Protein 4 g	
Vitamin A 0 %	Vitamin C 0 %
Calcium 4 %	Iron 8 %

Tortilla Chips

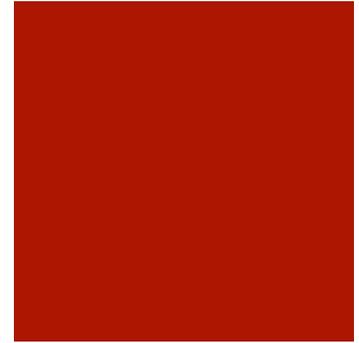


Nutrition Facts	
Per 16 pretzels (50 g)	
Amount	% Daily Value
Calories 200	
Fat 2 g	3 %
Saturated Fat 0.4 g + Trans Fat 0 g	2 %
Cholesterol 0 mg	
Sodium 870 mg	36 %
Carbohydrate 41 g	14 %
Fibre 2 g	8 %
Sugars 2 g	
Protein 5 g	
Vitamin A 0 %	Vitamin C 0 %
Calcium 4 %	Iron 25 %

Pretzels



Meal Planning



- Plan for 3 meals a day
 - aim for 3-4 food groups per meal
- Healthy snacks may be necessary between meals
 - aim for 2 food groups per snack
- Pre-packaged foods can save time and energy
 - Use label reading skills, rinse canned products
- Cook in bulk and freeze leftovers

Meal Planning

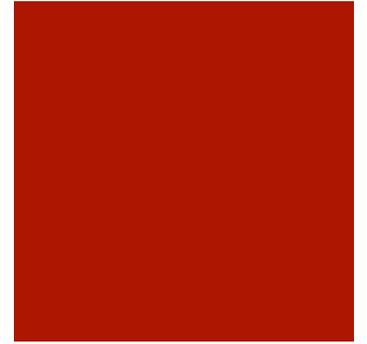


- Create a pleasant eating environment: table setting, music, candles
- Eat your meal on the porch, park bench
- Participate in potlucks or lunch groups
- Exchange recipes
- Use meal delivery services, when necessary

Take Home Messages



1. Your nutrition needs change as you age
2. Dietary changes can help to prevent or manage chronic diseases
3. The Mediterranean Diet is rich in antioxidants, fiber and healthy fats to improve your health
4. The plate model is a tool to manage portions, plan meals and enjoy a balanced diet
5. Reading labels can help you make healthy food choices



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