

BONE HEALTH

My Everyday Nutrition

STARTER ACTIVITY

- In your Workshop Guide, record everything you ate yesterday, including any supplements you might have taken
- Using the resource tables in your Workshop Guide, calculate the amount of calcium and vitamin D intake for everything you consumed
- You will return to this information later in the workshop

Agenda

1. Calcium and your Diet
2. Why should I care about Vitamin D?
3. Lifestyle Factors

LEARNING OBJECTIVES

I will be able to...

- Briefly describe the role calcium plays in my bone health.
- State the daily recommended calcium intake for adults.
- Discuss why we should aim for food sources of calcium.
- Identify a minimum of 2 ways to increase my calcium intake.
- Calculate how much calcium I intake every day.
- Determine if a calcium supplement might be needed.

LEARNING OBJECTIVES

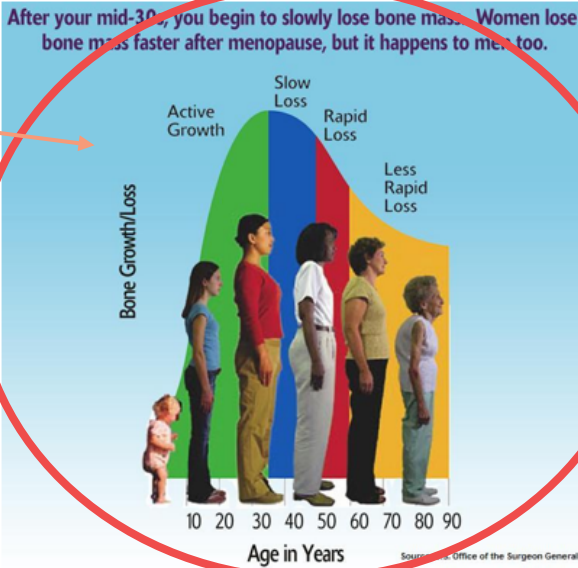
I will be able to...

- Briefly describe the role Vitamin D plays in my bone health.
- State the daily recommended Vitamin D intake for adults.
- Identify a minimum of 2 ways to increase my Vitamin D intake.
- Briefly describe the role protein plays in my bone health.
- Identify a minimum of 3 factors that can harm my bone health.
- Discuss how they can reduce the risk associated with factors that can harm my bone health.

HOW TO NAVIGATE THE SLIDES

BONE GROWTH CYCLE

After your mid-30s, you begin to slowly lose bone mass. Women lose bone mass faster after menopause, but it happens to men, too.



- bones are living tissue and are constantly changing
- This process is called “modelling”

I will be able to briefly describe the bone growth cycle.

slide title

slide image

key information

learning objective

WORKSHOP GUIDE

As we progress through this workshop, please ensure to complete the appropriate sections of the **Workshop Guide** provided for you.

This will be your quick reference following this workshop to aid you on your bone health journey.

SECTION 1

Calcium and Your Diet

WHY IS CALCIUM IMPORTANT?

- Helps balance the renewing and repairing processes of bones
- Reduces the risk of breaking a bone
- Recommended daily calcium intake

Age	<u>Recommended calcium from food and supplements</u>
19–50 years	1000 mg (milligrams) a day
Over 50 years	1200 mg a day

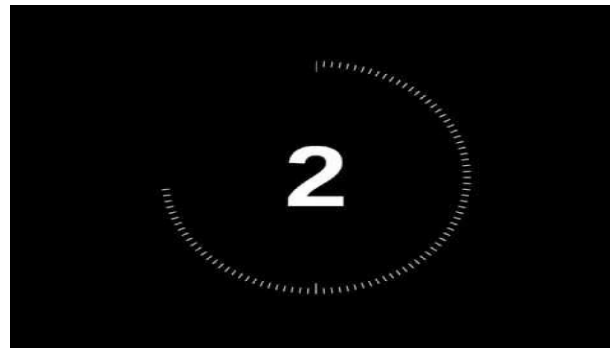
I will be able to briefly describe the role calcium plays in their bone health.
I will be able to state the daily recommended calcium intake for adults.

HOW TO INCREASE YOUR CALCIUM INTAKE

In groups of 3-4, brainstorm your ideas about the following question and record your ideas in your Workshop Guide

- **What are some ways to increase your daily intake of calcium?**

You will have TWO MINUTES to record your ideas in your Workshop Guide



I will be able to identify a minimum of 2 ways to increase my calcium intake.

HOW TO INCREASE YOUR CALCIUM INTAKE

- Include dairy products in your diet every day.
- Eat more leafy vegetables
- Add skim milk powder to foods and drinks.
- Have cheese as a snack or in a meal.
- Eat more canned fish like salmon and sardines, with the bones
- Read labels - choose foods with 15% or more Daily Value for calcium

I will be able to identify a minimum of 2 ways to increase my calcium intake.

CALCIUM INTAKE CALCULATOR

My calcium recommendation is _____ mg/day	
My calcium intake from Food Sources of Calcium on page 1	_____ mg/day
+ My calcium intake from supplements Use the label on the supplement bottle.	_____ mg/day
= My total calcium intake	_____ mg/day

- Using your daily intake of calcium from the starter activity, how does it compare to your recommended daily intake of calcium?

I will be able to calculate how much calcium I intake every day.

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= My total calcium intake	_____ mg/day

- What changes could you make to your diet to ensure that you are meeting the daily calcium intake recommendation?
- How else can you improve your diet?

I will be able to calculate how much calcium I intake every day.

CALCIUM FROM FOOD SOURCES

- Try to get as much calcium from food as you can, before considering supplements
 - food sources have other essential bone nutrients whereas a calcium supplement just provides calcium
- Excess calcium from food sources is not harmful

I will be able to discuss why we should aim for natural sources of calcium.

CALCIUM SUPPLEMENTS

How do you know if you need a calcium supplement?

I will be able to determine if a calcium supplement might be needed.

CALCIUM SUPPLEMENTS

- You may need a calcium supplement if
 - you do not get enough calcium from food every day
 - you do not include any dairy in your diet
 - your healthcare provider recommends that you take a calcium supplement

I will be able to determine if a calcium supplement might be needed.

CALCIUM SUPPLEMENTS

- If choosing a supplement, you will need to consider the amount of 'elemental' calcium in your total amount of calcium not just what you see on the front of the bottle
- The body can only absorb a certain amount of calcium at one time (about 500 mg of elemental calcium)
- Talk to your healthcare provider if you think you need a calcium supplement

I will be able to determine if a calcium supplement might be needed.

SECTION 2

Why Should I Care about Vitamin D?

WHY IS VITAMIN D SO IMPORTANT?

- Helps your body absorb and use calcium from your diet and/or supplements
- Increases bone strength which reduces the risk of breaking a bone
- Increases muscle strength which may reduce the risk of falling

I will be able to briefly describe the role Vitamin D plays in their bone health.

RECOMMENDED DAILY VITAMIN D INTAKE

Take a Vitamin D supplement every day

Recommended vitamin D supplement
19–50 years at risk of osteoporosis: 400–1000 IU (10–25 µg) a day
19–50 years with osteoporosis: 800–2000 IU (20–50 µg) a day
Over 50 years: 1000–2000 IU (25–50 µg) a day
My healthcare provider suggests _____ IU vitamin D a day.

(IU = International Units, µg = micrograms)

- Check the label of your supplement bottle for the type of vitamin D it contains
 - vitamin D₃ is the best for most people and is more effective than D₂
 - choose vitamin D₂ supplement for a vegan option
- do not exceed more than 2000 IU of vitamin D each day from supplements unless your healthcare provider tells you to take more

I will be able to briefly describe the role Vitamin D plays in their bone health.

RECOMMENDED DAILY VITAMIN D INTAKE

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Over 50 years: 1000–2000 IU (25–50 µg) a day
My healthcare provider suggests _____ IU vitamin D a day.

(IU = International Units, µg = micrograms)

- Using your daily intake of vitamin D from the starter activity, how does it compare to your recommended daily intake of vitamin D?

I will be able to briefly describe the role Vitamin D plays in their bone health.

VITAMIN D SOURCES

- Choose foods with vitamin D such as milk, fortified soy beverage, halibut, salmon, sardines, trout, eggs and margarine
- Our skin makes vitamin D from sunlight
 - Albertans make little to no vitamin D from October to March!

Key Message:

Food and sunshine are NOT a reliable source of vitamin D

- a daily vitamin D supplement is recommended for all ages

I will be able to identify a minimum of 2 ways to increase their Vitamin D intake.

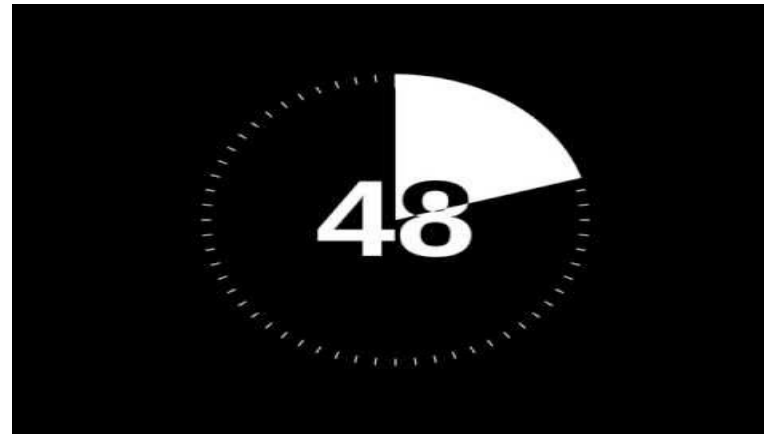
SECTION 3

Lifestyle Factors

LIFESTYLE FACTORS THAT AFFECT YOUR BONES

With a partner, come up with a list of 4 possible dietary and lifestyle factors that can have adverse effects on your bone health.

You will have ONE MINUTE to write down your ideas into your Workshop Guide.



I will be able to identify a minimum of 3 factors that can harm their bone health.

I will be able to discuss how I can reduce the risk associated with factors that can harm their bone health.

LIFESTYLE FACTORS HARMFUL TO YOUR BONES

- limit caffeine to 400 mg or less each day
 - one cup (250 mL/8 oz) contains 100-150 mg of caffeine, also found in coffee-based drinks, colas, teas, energy drinks and dark chocolate
 - colas and dark soft drinks also have phosphates that bind calcium, which has evidence that it can increase the risk for fracture
- limit alcohol intake to NO MORE THAN 1-2 drinks each day
 - one drink is 12 oz (355 mL) of beer, 5 oz (150 mL) of wine, 1.5 oz (45 mL) of liquor

I will be able to identify a minimum of 3 factors that can harm their bone health.

I will be able to discuss how I can reduce the risk associated with factors that can harm their bone health.

LIFESTYLE FACTORS HARMFUL TO YOUR BONES

- limit salt (sodium) intake to less than 2300 mg per day
 - eat less processed and packaged foods, read labels to find options lower in sodium, choose fresh foods and foods with no salt added
 - restaurant food is also high in sodium
- smoking is a risk factor for osteoporosis
 - Talk to your healthcare provider to discuss supports that can help you quit smoking

I will be able to identify a minimum of 3 factors that can harm their bone health.

I will be able to discuss how I can reduce the risk associated with factors that can harm their bone health.

ENSURING A BALANCED DIET

- Protein helps you maintain muscle mass and weight, which are important for bone health
- If you lose weight without trying or have a poor appetite, talk to your healthcare provider about ways to add calories and protein to your diet
- Eat a variety of healthy foods every day, including vegetables and fruits and make sure to include some protein at each meal and/or snack

I will be able to briefly describe the role protein plays in their bone health.

COOL-DOWN ACTIVITY

Complete the My Action Plan for My Bone Health activity in your Workshop Guide

ADDITIONAL RESOURCES

Osteoporosis Canada

- osteoporosis.ca

Dr. David Hanley Osteoporosis Centre

- osteoporosiscalgary.com

National Osteoporosis Foundation

- nof.org

SPONSORS



BIBLIOGRAPHY

(n.d.). Calcium. Retrieved from <https://osteoporosis.ca/bone-health-osteoporosis/calcium-and-vitamin-d/>.

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Alberta Health Services. (2018). *Healthy Bones*.

Alberta Health Services. (2012). *Adding Calories and Protein to Your Diet*.