

# Exercise and You

# Starter Activity

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- Please complete the **Get Active Questionnaire** handout.
- We will return to this questionnaire at the end of the workshop.

I will be able to identify what I am doing well and what I can improve on in terms of exercise for bone health.



# Agenda

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1. Exercise Guidelines
2. Why Should I Exercise?
3. Let's Begin... Exercise Tips!
4. SMART Goal Setting



# Learning Objectives

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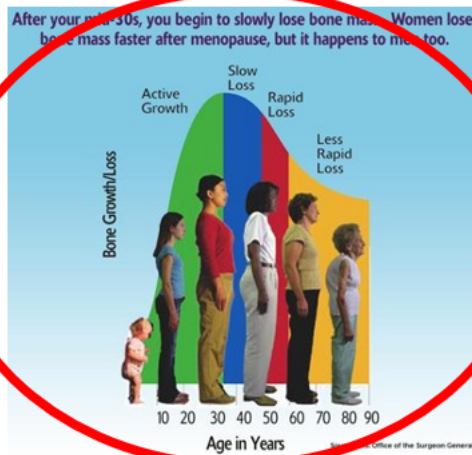
I will be able to...

- Assess my personal activity level in relation to both the Canadian Physical Activity Guidelines and the Osteoporosis Canada recommendations for bone health
- Identify what I am doing well and what I can improve on in terms of exercise for bone health
- Demonstrate proficiency in performing a basic routine of everyday strength exercises
- Create an activity plan for bone health by setting a SMART goal for a personal exercise routine



# How to navigate the slides

## Bone Growth Cycle



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

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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.



# Exercise Guidelines

# What do you already know?

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With the person beside you discuss what a weekly physical activity routine for healthy bones should look like.

- what types of exercises should you include?
- what are the benefits?
- how often should you do each type of exercise?
- is walking enough?

I will be able to assess my personal activity level in relation to both the Canadian Physical Activity Guidelines and the Osteoporosis Canada recommendations for bone health.





# Canadian Physical Activity Guidelines

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To achieve **health benefits**, adults aged 18-64 should:

- accumulate at least 150 minutes of moderate-to-vigorous intensity aerobic physical activity per week, in bouts of 10 minutes or more
- perform muscle and bone strengthening activities using major muscle groups, at least 2 days per week

65 years and older:

- as above + physical activities to enhance balance and prevent falls

I will be able to assess my personal activity level in relation to both the Canadian Physical Activity Guidelines and the Osteoporosis Canada recommendations for bone health.



# Exercise for Bone Health

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Osteoporosis Canada recommends:

- at least 150 minutes of moderate-to-vigorous intensity aerobic physical activity per week, in bouts of 10 minutes or more - **weight-bearing** is better
- muscle and bone strengthening activities using major muscle groups, at least 2 days per week
- physical activities to enhance balance and prevent falls daily
- practice spine sparing strategies and good posture daily

I will be able to assess my personal activity level in relation to both the Canadian Physical Activity Guidelines and the Osteoporosis Canada recommendations for bone health.



# Your Exercise Routine for Bone Health

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Your exercise routine should include exercises in each of the following areas:

- Strength training
- Posture training
- Balance training
- Weight bearing aerobic physical activity

I will be able to assess my personal activity level in relation to both the Canadian Physical Activity Guidelines and the Osteoporosis Canada recommendations for bone health.



# Why Should I Exercise?

# The Importance of Exercise

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Regular exercise also has many general health benefits including lowered rates of

- depression
- heart disease
- dementia
- cancer
- diabetes
- other chronic diseases

I will be able to assess my personal activity level in relation to both the Canadian Physical Activity Guidelines and the Osteoporosis Canada recommendations for bone health.



# Exercise for Your Bone Health

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Exercise is important for your bone health. It will help you

- build muscle strength
- prevent falls
- protect the spine
- slow the rate of bone loss

I will be able to assess my personal activity level in relation to both the Canadian Physical Activity Guidelines and the Osteoporosis Canada recommendations for bone health.



# Let's Begin... Exercise Tips!

# Before You Start Exercising

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For almost everyone the benefits of exercise far outweigh the risks!

- complete a **Get Active Questionnaire** before you start a new exercise program and...
- if you have any questions or concerns check with your doctor, a physiotherapist, a qualified exercise professional (Canadian Society for Exercise Physiology) or a BoneFit™ trained professional

I will be able to demonstrate proficiency in performing a basic routine of everyday strength exercises.





# Osteoporosis and Spine Fracture

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If you have osteoporosis **AND** have had a spine fracture:

- strength, posture, balance and weight bearing aerobic training are still important
- focus on how to do the exercise safely by speaking with a
  - physiotherapist
  - qualified exercise professional (Canadian Society for Exercise Physiology)
  - BoneFit™ trained professional

I will be able to demonstrate proficiency in performing a basic routine of everyday strength exercises.



# Movement Guidelines - Spine Sparing

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Practice spine sparing not only during your exercise routine, but as you go about your everyday routine as well.

- Use the hip hinge
  - bend with your hips and knees
  - do not bend in your spine
- Turn your whole body
  - turn with your feet
  - do not twist your spine

**Avoid** rapid, repetitive, weighted or end-range bending or twisting in your spine.

I will be able to demonstrate proficiency in performing a basic routine of everyday strength exercises.



# Movement Guidelines - Spine Sparing

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If you have:

- lost a lot of height
- a very rounded back
- have had a spine fracture

You should **not** perform rapid, repetitive, weighted or end-range bending or twisting in your spine

I will be able to demonstrate proficiency in performing a basic routine of everyday strength exercises.



# When Exercising

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Remember to...

- wear comfortable, supportive footwear
- be aware that muscle soreness after exercise is normal
- use a firm, stable chair for support
- start with 5 repetitions of each exercise
  - add 1 or 2 repetitions each session until you reach 15 repetitions

I will be able to demonstrate proficiency in performing a basic routine of everyday strength exercises.



# Home Exercise Routine

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Let's practice an accessible home exercise routine that requires only a chair to complete

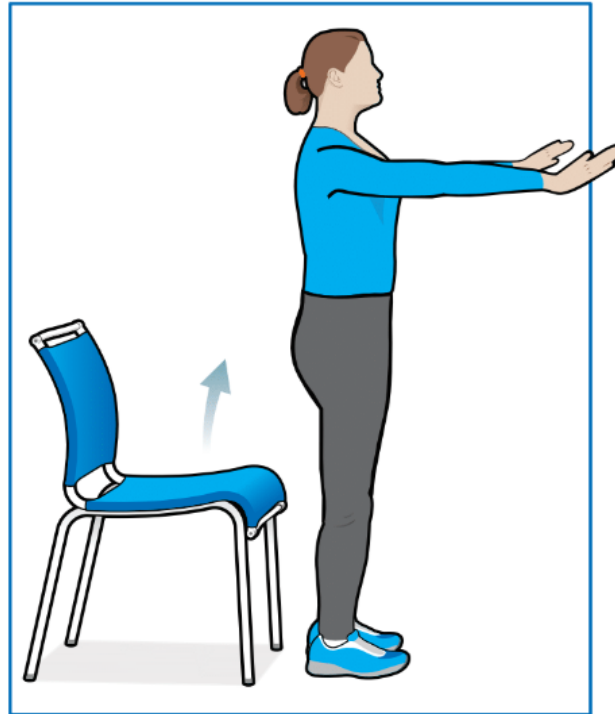
- Everyone will need to spread out in the room with their chairs
  - stand with your chair
  - you should have enough room around you so that you can stand with your arms spread wide in all directions

I will be able to demonstrate proficiency in performing a basic routine of everyday strength exercises.



# Sit to Stand

**Repeat up to 15 times**



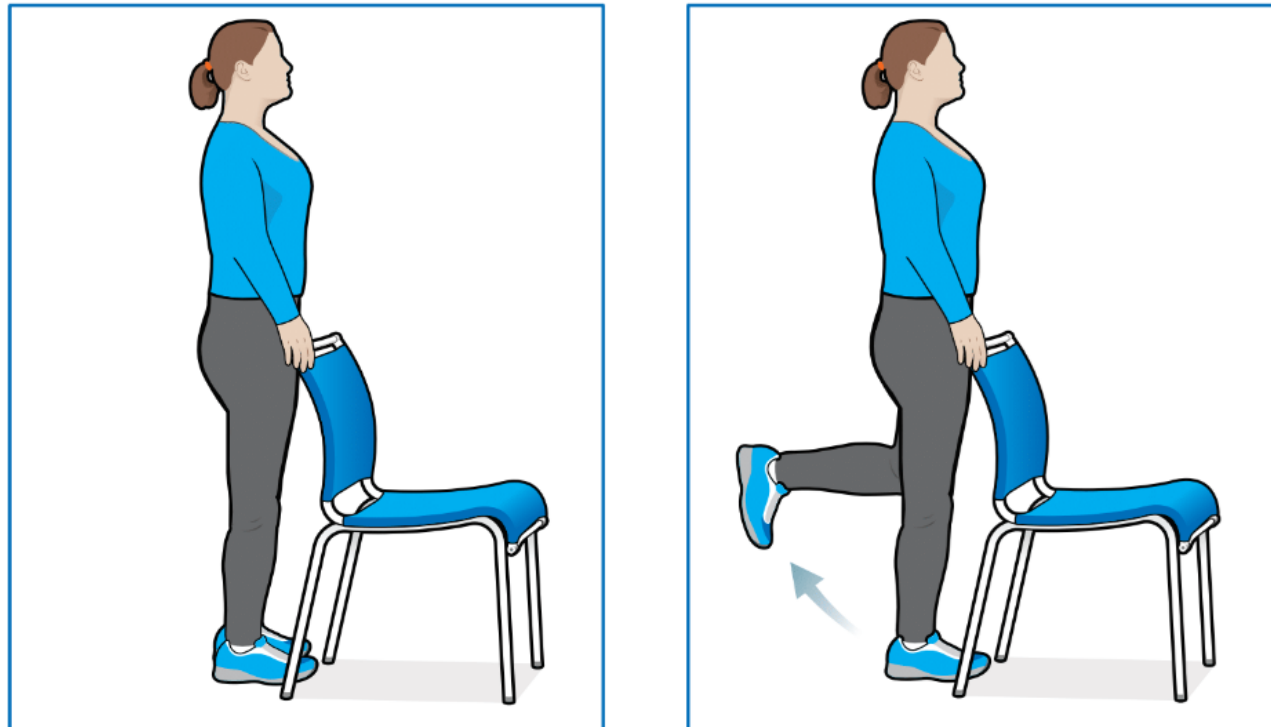
- Sit in your chair, feet flat on the floor and hip-width apart
- Slowly stand up halfway, making sure your knees do not come forward past your toes
- Keep your hips, knees and ankles in line
- Stand up straight and tall
- Return to a seated position

I will be able to demonstrate proficiency in performing a basic routine of everyday strength exercises.



# Standing Leg Curl

**Repeat on each leg up to 15 times**



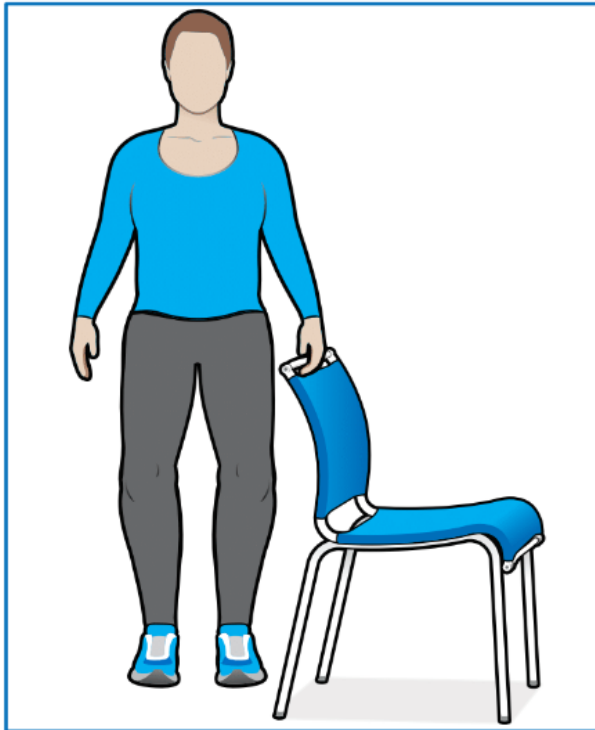
- Stand with feet hip-width apart
- Shift weight onto one leg
- Bend other knee
- Raise heel toward buttocks as far as it is comfortable
- Return to starting position

I will be able to demonstrate proficiency in performing a basic routine of everyday strength exercises.



# Standing Leg Lift

**Repeat on each leg up to 15 times**



- Stand with feet together, hold your chair for support
- Shift weight onto one leg
- Raise the other leg out to the side
- Keep your back straight and tall
- Slowly return leg to the floor

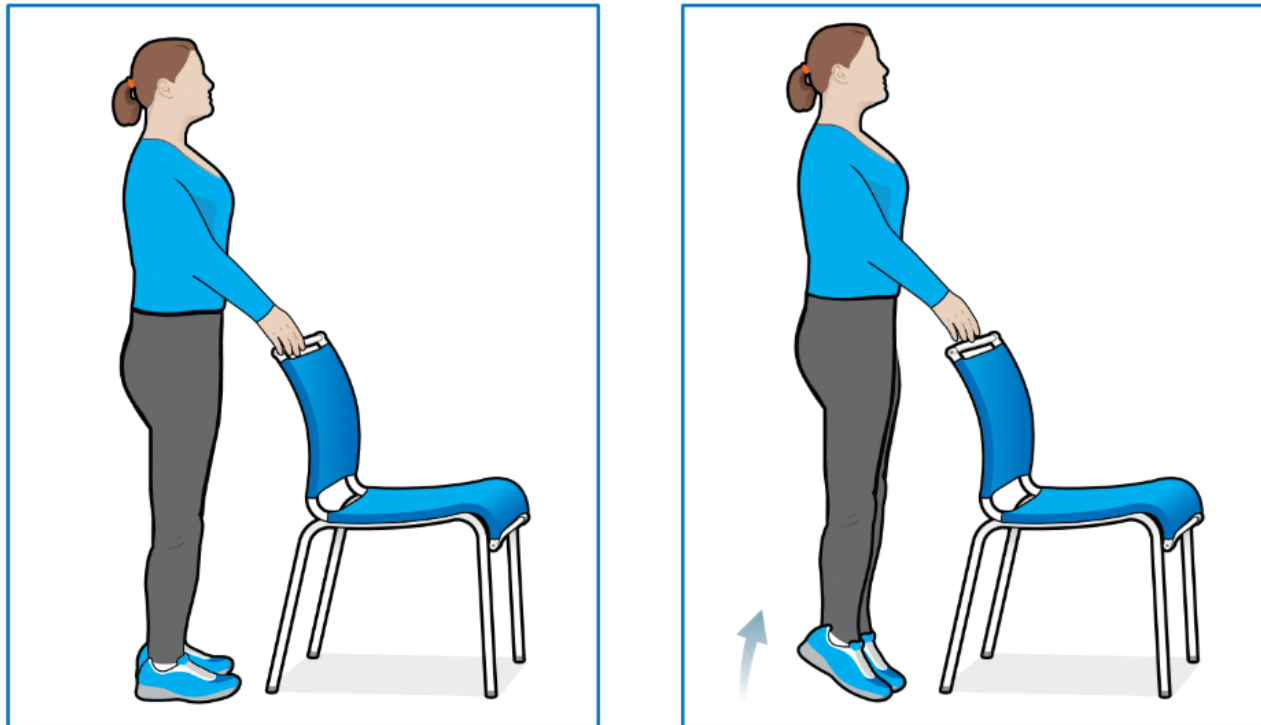
I will be able to demonstrate proficiency in performing a basic routine of everyday strength exercises.





# Heel Raise

**Repeat up to 15 times**



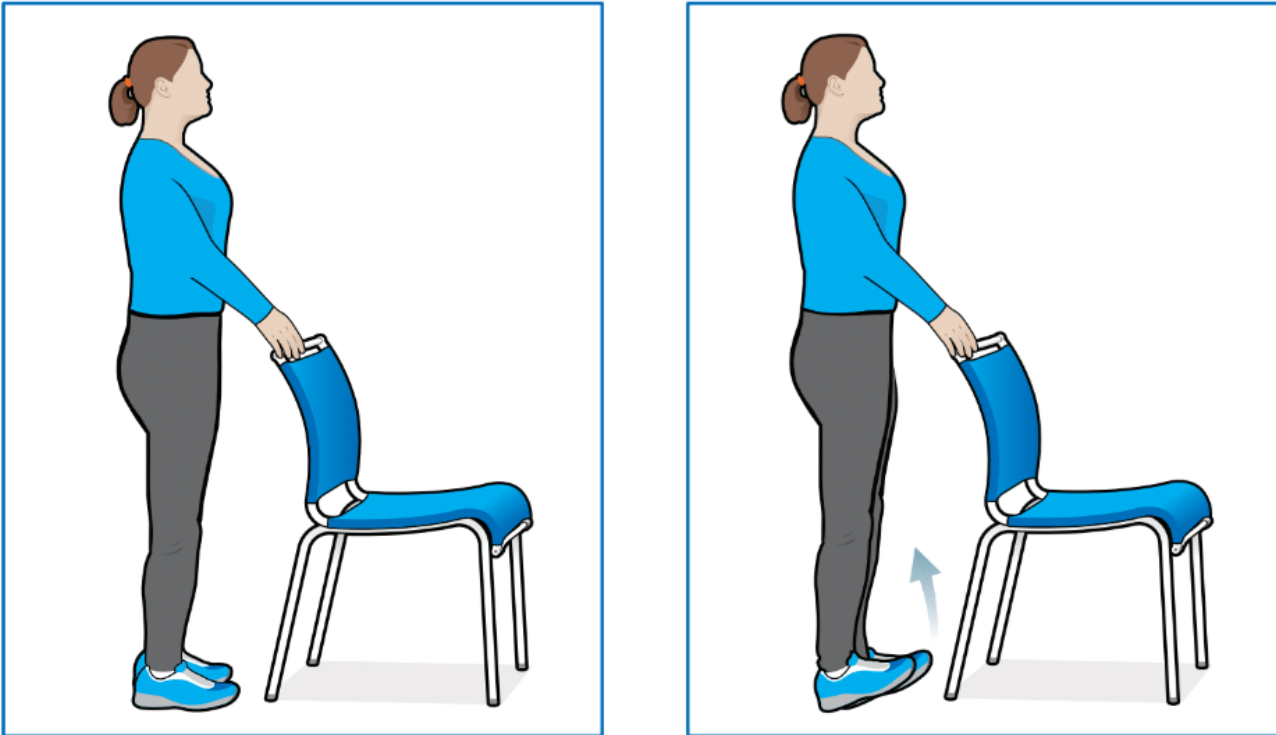
- Stand with feet hip-width apart
- Hold on to the back of your chair and look forward
- Slowly raise both heels off of the floor, standing on your toes
- Hold for 5-10 seconds
- Return to the start position

I will be able to demonstrate proficiency in performing a basic routine of everyday strength exercises.



# Toe Raise

**Repeat up to 15 times**



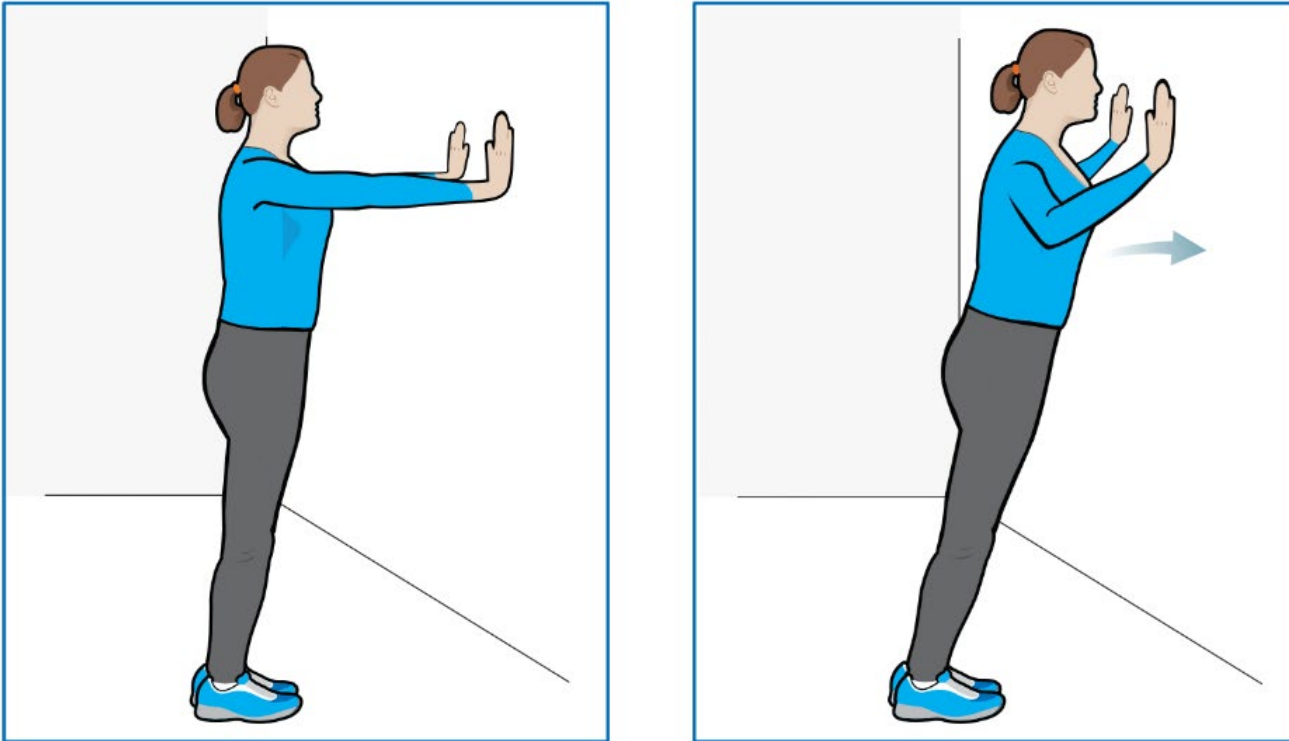
- Stand with feet hip-width apart
- Hold on to the back of your chair and look forward
- Slowly raise your toes off of the floor, putting weight onto your heels
- Hold for 5-10 seconds
- Return to the start position

I will be able to demonstrate proficiency in performing a basic routine of everyday strength exercises.



# Wall Push-up

**Repeat up to 15 times**



- Facing a wall, stand arms' length away and place hands on the wall at shoulder height and shoulder-width apart
- Tighten abdominal muscles
- Keep back and legs straight, bend elbows while lowering upper body toward the wall
- Hold for 2-3 seconds
- Straighten arms pushing against the wall and return to the starting position
- Keep elbows slightly bent
- Return to the start position

I will be able to demonstrate proficiency in performing a basic routine of everyday strength exercises.



# SMART Goal Setting

# Planning and Goal Setting

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In your **Exercise and You - Workshop Guide**, consider the following:

This week...

- decide how you want to continue with safe movement and bone health exercise
- identify how you will take action to benefit from the information you have learned
- identify goals that will help you stay motivated

I will be able to create an activity plan by setting SMART goals for a personal exercise routine.



# How do I set goals?

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Setting **SMART** goals helps you make clear, successful changes

- Specific**                      How will I do it? What, how much, when, how often?
- Measurable**      How will I measure it? What will it look like to achieve my goal?
- Achievable**      Can I do it? Can I keep doing it? Start small and build momentum.
- Realistic**                      Is it within reach? Does my goal fit into my everyday life?
- Time-oriented**              When will I meet my goal?

I will be able to create an activity plan by setting SMART goals for a personal exercise routine.



# Hints to Stay Motivated

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- schedule exercise into your week
- use the words “I will”, not “ I will try...”
- choose a goal that is meaningful to you
- big goals need to be broken down into smaller steps
  - but always keep your big goals in mind
- reach out for support - recruit a “cheer team”

I will be able to create an activity plan by setting SMART goals for a personal exercise routine.



# Cool-down Activity

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- Review your **Get Active Questionnaire** from the Starter Activity. In your **Workshop Guide**, consider
  - what changes do you need to make to your daily routine?
  - how can you make these changes?
  - which areas should you focus on first?
- Create a SMART goal for improving your exercise routine that you can work towards over the next week

I will be able to identify what I am doing well and what I can improve on in terms of exercise for bone health.





# Additional Resources

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Osteoporosis Canada

- [osteoporosis.ca](http://osteoporosis.ca)

Dr. David Hanley Osteoporosis Centre

- [osteoporosiscalgary.com](http://osteoporosiscalgary.com)

National Osteoporosis Foundation

- [nof.org](http://nof.org)



# Bibliography

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Canadian Society for Exercise Physiology. (2020). *Canadian Physical Activity Guidelines* [PDF File]. Retrieved from <https://csepguidelines.ca/>

Osteoporosis Canada. (2018). *Too Fit to Fracture: Managing Osteoporosis through Exercise*. (pp. 1, 26).

Finding Balance & Injury Prevention Centre. (2017). *Exercise Tips for Older Adults*.

Alberta Health Services. (2012). *Better Bones 4 Life: Learning to Exercise and Move with Osteopenia or Osteoporosis*. (pp. 4-11, 36-45)

