

BONE HEALTH

Exercise and You

STARTER ACTIVITY

- 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

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

LEARNING OBJECTIVES

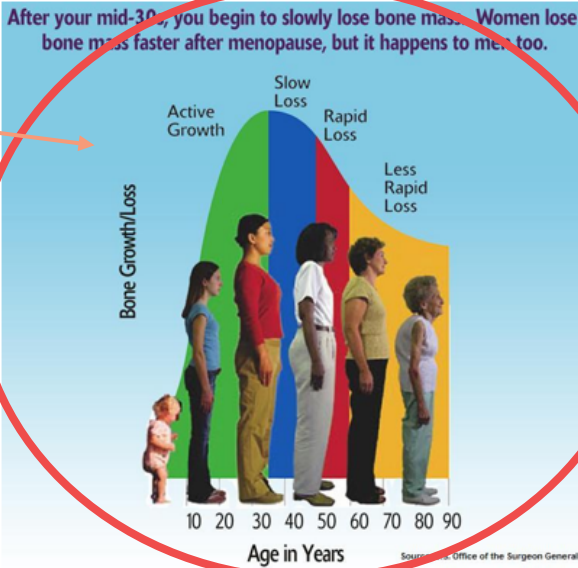
I will be able to...

- 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

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

Exercise Guidelines

WHAT DO YOU ALREADY KNOW?

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

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

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

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.

SECTION 2

Why Should I Exercise?

THE IMPORTANCE OF EXERCISE

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

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.

SECTION 3

Let's Begin... Exercise Tips!

BEFORE YOU START EXERCISING

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

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

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

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

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

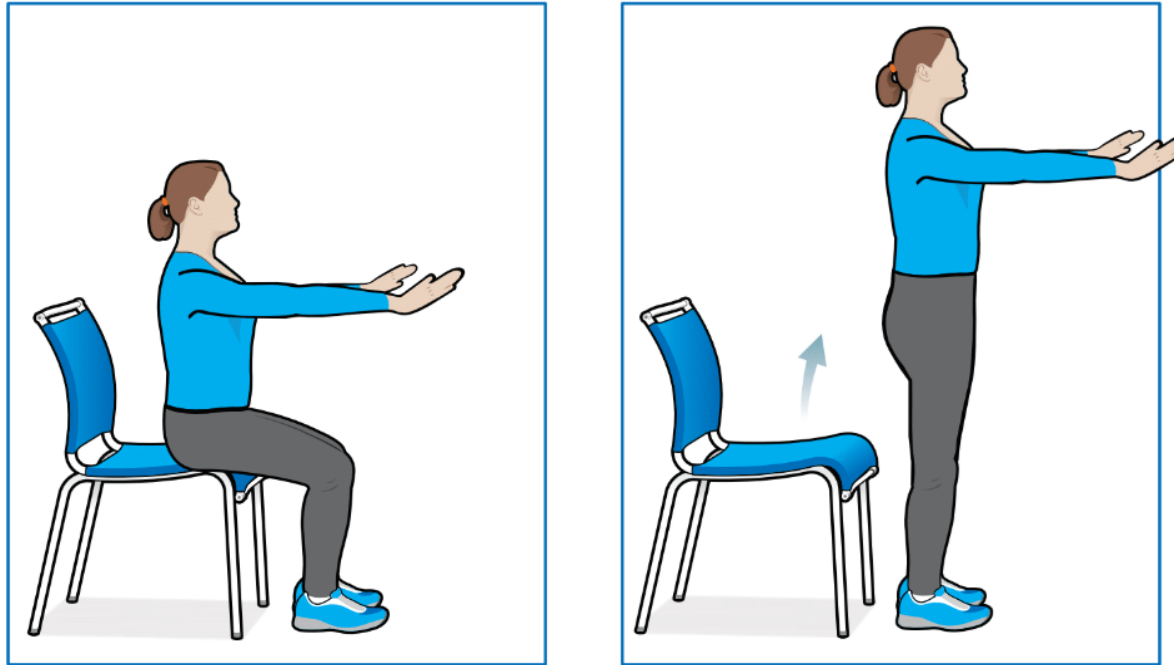
Let's practice an accessible home exercise routine that requires only a chair to complete

- 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

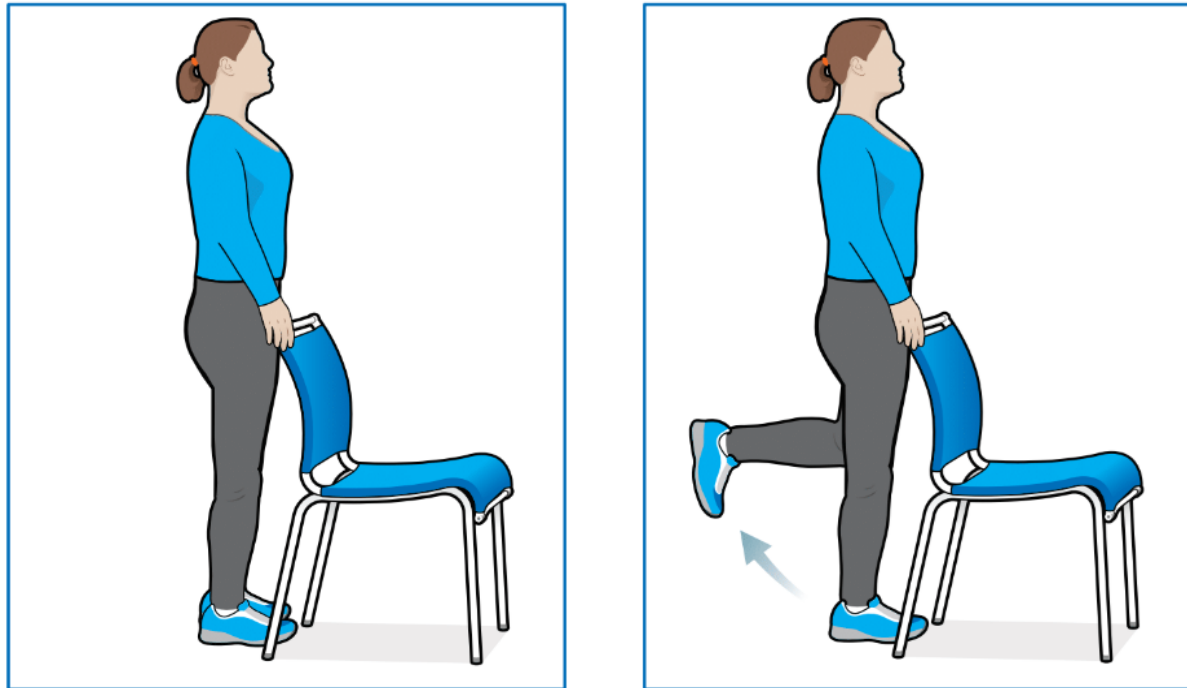


- Sit in your chair, feet flat on the floor and hip-width apart
- Slowly stand up halfway, making sure your knees do not come forward past your toes
- Keep your hips, knees and ankles in line
- Stand up straight and tall
- Return to a seated position

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

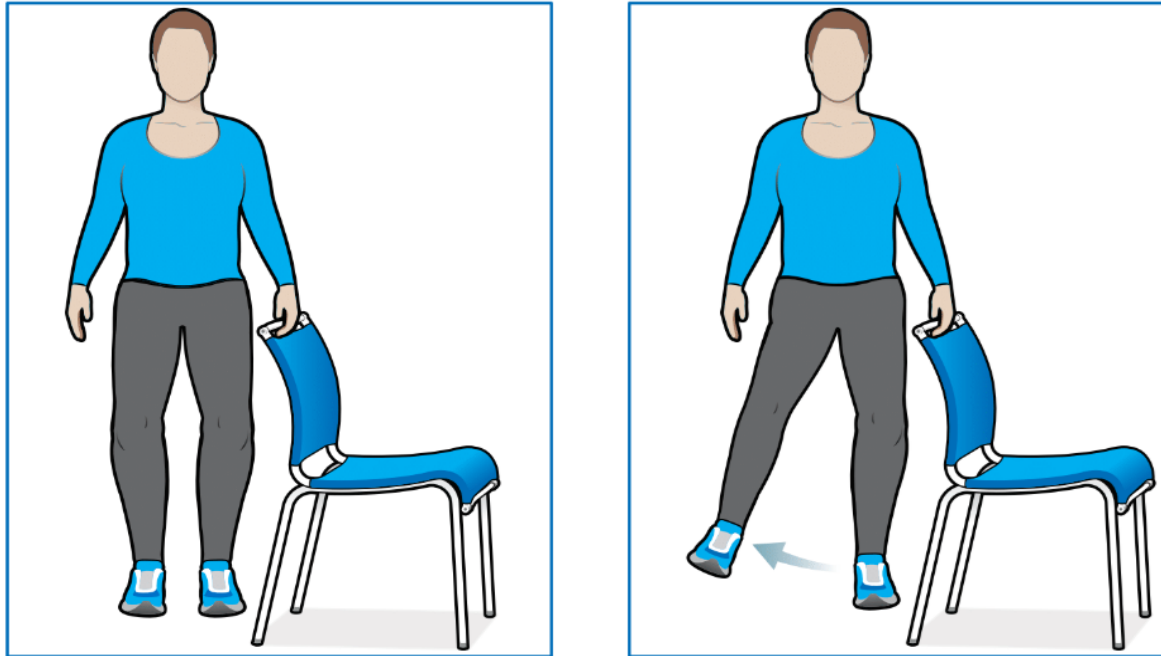


- Stand with feet hip-width apart
- Shift weight onto one leg
- Bend other knee
- Raise heel toward buttocks as far as it is comfortable
- Return to starting position

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

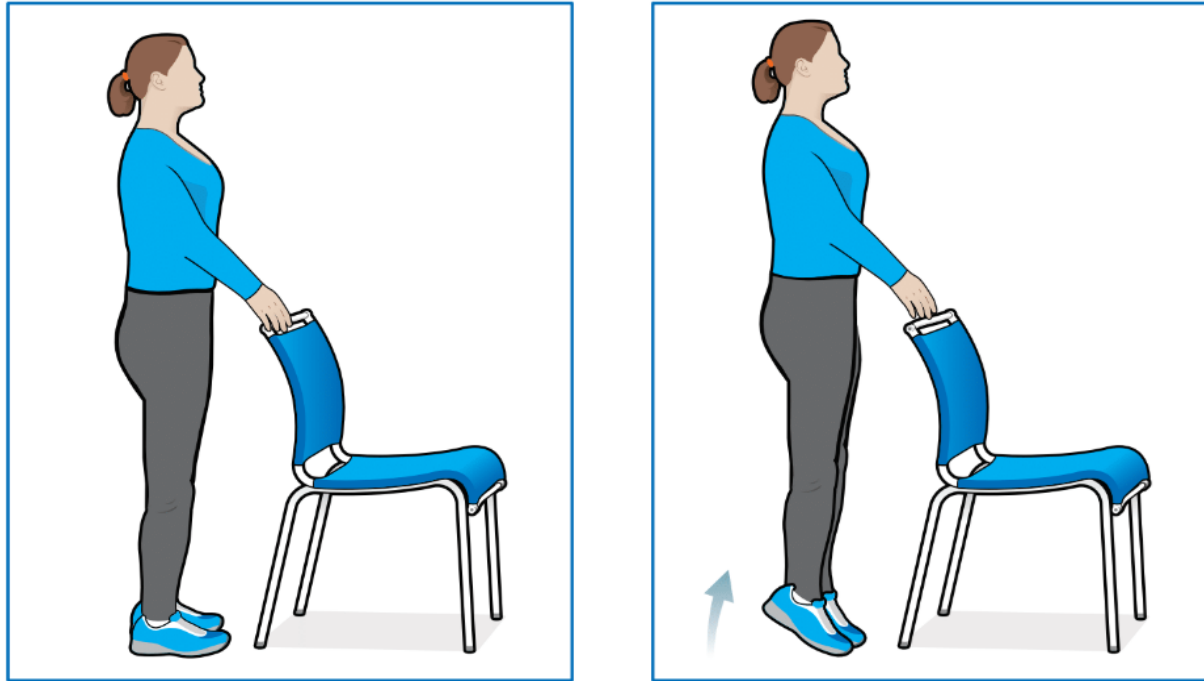


- Stand with feet together, hold your chair for support
- Shift weight onto one leg
- Raise the other leg out to the side
- Keep your back straight and tall
- Slowly return leg to the floor

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

HEEL RAISE

Repeat up to 15 times

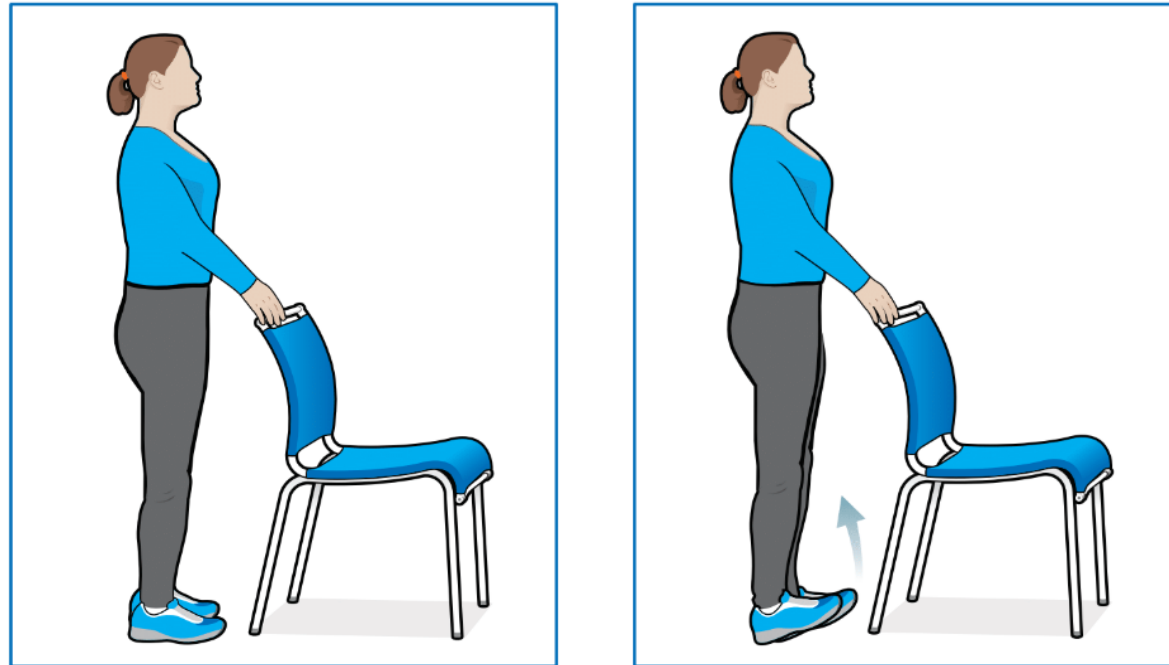


- Stand with feet hip-width apart
- Hold on to the back of your chair and look forward
- Slowly raise both heels off of the floor, standing on your toes
- Hold for 5-10 seconds
- Return to the start position

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

TOE RAISE

Repeat up to 15 times

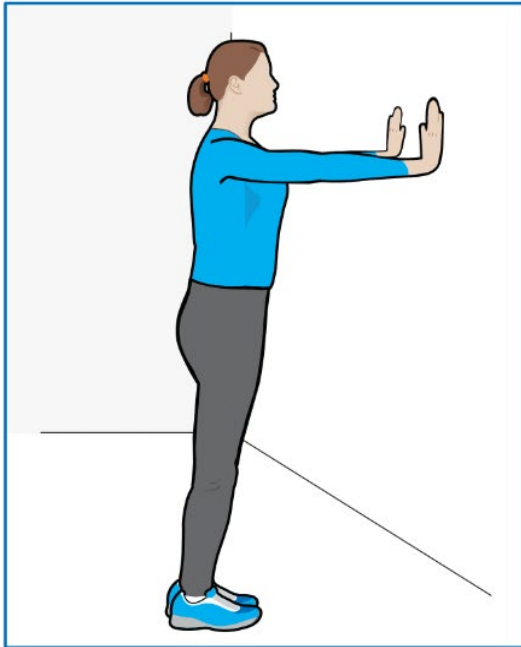


- Stand with feet hip-width apart
- Hold on to the back of your chair and look forward
- Slowly raise your toes off of the floor, putting weight onto your heels
- Hold for 5-10 seconds
- Return to the start position

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.

SECTION 4

SMART Goal Setting

PLANNING AND GOAL SETTING

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?

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

- 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

- 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

Osteoporosis Canada

- osteoporosis.ca

Dr. David Hanley Osteoporosis Centre

- osteoporosiscalgary.com

National Osteoporosis Foundation

- nof.org

SPONSORS



BIBLIOGRAPHY

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)