

BONE HEALTH

Aerobic Exercise

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. 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 how much aerobic exercise is needed for health benefits
- Identify the difference between weight-bearing and non-weight-bearing aerobic exercise and why this is important for those with osteoporosis
- Create a plan to continue or add aerobic exercise into my weekly routine

HOW TO NAVIGATE THE SLIDES

slide title

BONE GROWTH CYCLE

slide image

key information

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

learning objective

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

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

EXERCISE FOR BONE HEALTH

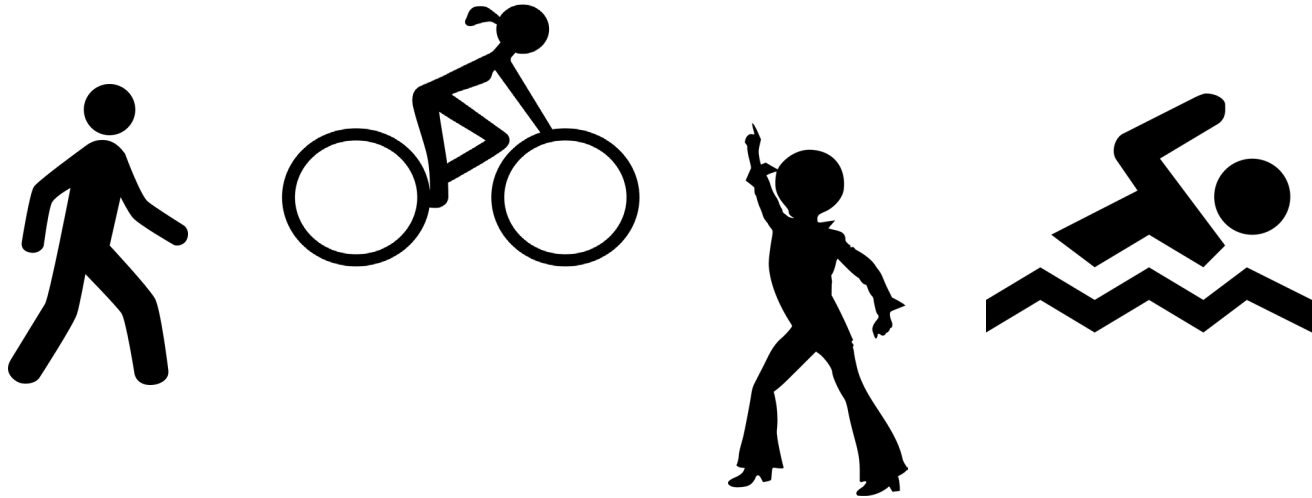
Osteoporosis Canada recommends:

- 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.

WHAT IS AEROBIC EXERCISE?

- aka “cardio”
- physical activity that is rhythmic in nature, uses large muscle groups and results in an increase in breathing and heart rate
- examples:
 - walking
 - cycling
 - dancing
 - swimming
 - others?



I will be able to identify how much aerobic exercise is needed for health benefits.

HOW MUCH AEROBIC EXERCISE DO I NEED?

With the person beside you, discuss the following questions:

- How much aerobic exercise do you complete per week?
- What motivates you to participate in aerobic exercise?
- What are some barriers that prevent you from participating in aerobic exercise?

Record your ideas in your **Workshop Guide**.

I will be able to identify how much aerobic exercise is needed for health benefits.

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.

WEIGHT-BEARING AEROBIC EXERCISE

Weight-bearing aerobic exercise is recommended for people with osteoporosis

- exercise on your feet and against gravity
- weight-bearing exercise helps build bone
 - Examples include walking, hiking, dancing
- non weight-bearing exercise
 - Examples include swimming, cycling, rowing

I will be able to identify the difference between weight-bearing and non weight-bearing aerobic exercise and why this is important for those with osteoporosis.

NORDIC POLE WALKING

Great form of weight-bearing aerobic exercise for those with osteoporosis



- improves walking confidence
- helps with balance when walking outdoors
- promotes an upright walking posture
- full body workout - uses upper body, lower body and core muscles
- instructional videos at www.urbanpoling.com
- It's fun!

I will be able to identify the difference between weight-bearing and non weight-bearing aerobic exercise and why this is important for those with osteoporosis.

BENEFITS OF AEROBIC EXERCISE

- Physical Health
 - ↓ risk of developing many chronic health conditions
 - heart disease, type 2 diabetes, high blood pressure, etc.
 - ↑ management of chronic health conditions
 - ↓ blood pressure, ↓ blood sugar, ↓ pain and ↑ function in those with arthritis, etc.



I will be able to identify the difference between weight-bearing and non weight-bearing aerobic exercise and why this is important for those with osteoporosis.

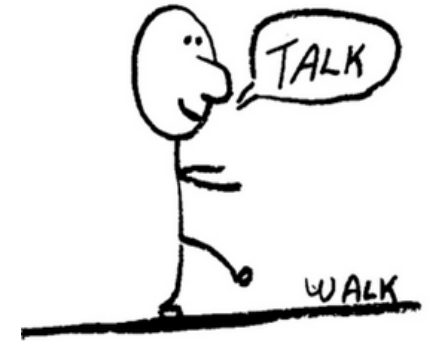
BENEFITS OF AEROBIC EXERCISE

- Fitness
 - ↑ energy and stamina, ↓ fatigue
 - maintenance of independence with ageing
- Mental Health
 - aerobic exercise is a known stress reliever and mood booster



I will be able to identify the difference between weight-bearing and non weight-bearing aerobic exercise and why this is important for those with osteoporosis.

MONITORING INTENSITY - HOW HARD?

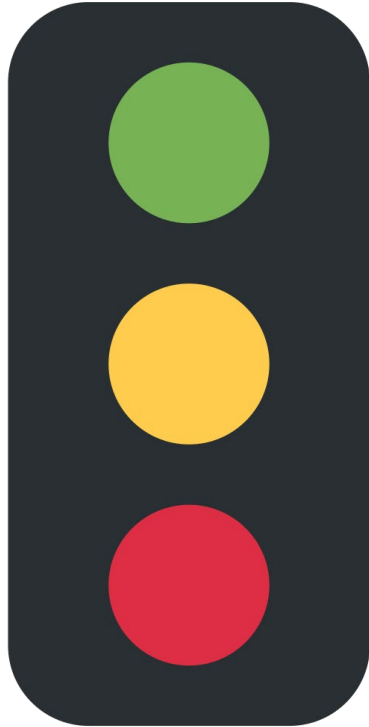


- moderate-vigorous intensity
- measure by:
 1. Rating of Perceived Exertion (scale of 0-10) - aim for 3-6
 2. Talk test - you should be able to talk, but you shouldn't be able to sing
 3. Heart rate - can be inaccurate/difficult to measure, some medications can affect heart rate

Start slowly!

I will be able to identify how much aerobic exercise is needed for health benefits.

KEEPING SAFE



KEEP GOING

- breathing faster, sweating, feels a bit challenging

SLOW DOWN

- out of breath, difficult to talk

STOP

- dizziness, significant shortness of breath, chest pain, etc.

I will be able to identify how much aerobic exercise is needed for health benefits.

GETTING STARTED

FITT Principle

Frequency - how often?

Intensity - how hard?

Time - how long?

Type - what?

Remember...

- Set SMART goals
- Start slowly
- Establish the routine first, address intensity last
- Focus on alignment/posture



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

SECTION 2

SMART Goal Setting

PLANNING AND GOAL SETTING

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

This week...

- decide how you want to continue with aerobic 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 a plan to continue or add aerobic exercise into my weekly 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
goal?

How will I measure it? What will it look like to achieve my

Achievable
momentum.

Can I do it? Can I keep doing it? Start small and build

Realistic

Is it within reach? Does my goal fit into your everyday life?

Time-oriented

When will I meet my goal?

I will be able to create a plan to continue or add aerobic exercise into my weekly 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 a plan to continue or add aerobic exercise into my weekly 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 create a plan to continue or add aerobic exercise into my weekly routine.

ADDITIONAL RESOURCES

Osteoporosis Canada

- osteoporosis.ca

Dr. David Hanley Osteoporosis Centre

- osteoporosiscalgary.com

National Osteoporosis Foundation

- nof.org

SPONSORS



BIBLIOGRAPHY

Osteoporosis Canada. (2018). *Too Fit to Fracture: Managing Osteoporosis through Exercise*.

Alberta Health Services. (2013). *Osteoporosis/Bone Health Education Program*.