

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

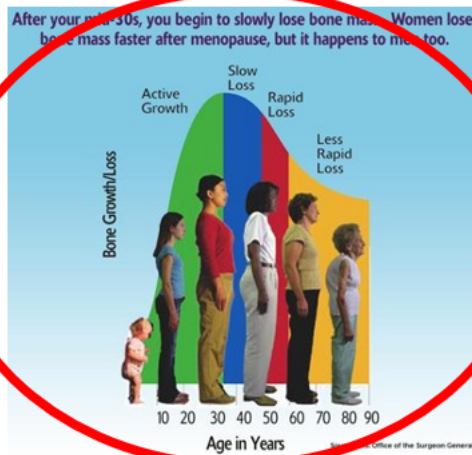
I will be able to...

- 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

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

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

Exercise for Bone Health

Osteoporosis Canada recommends:

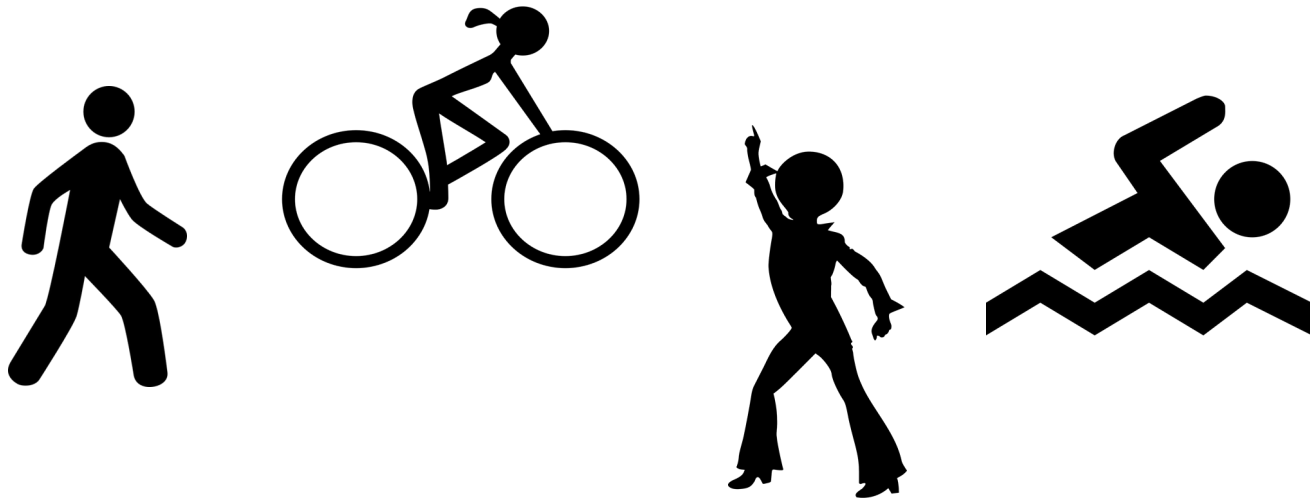
- at least 150 minutes of moderate-to-vigorous intensity aerobic physical activity per week, in bouts of 10 minutes or more - **weight-bearing** is better
- muscle and bone strengthening activities using major muscle groups, at least 2 days per week
- physical activities to enhance balance and prevent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

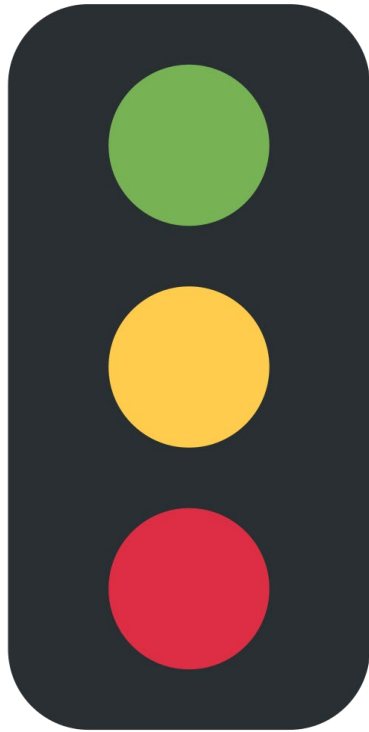


Start slowly!

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



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

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 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



Bibliography

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

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

