



"Exercising Safely During the Winter Months"

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Lecture Objectives

*Upon completion of the lecture, individuals should be able to:

- Describe clothing needs and safety measures to use when exercising outside.
- Explain when and how to make exercise modifications.
- Identify which muscle groups are targeted by each exercise.



Exercising outside in the cold:

- Be sure it's not too cold outside
 - Hypothermia & Frostbite risk
- Dress in layers
- Protect your hands, feet, head and ears
- Safety gear and sunscreen
- Drink plenty of fluids

Mayo Clinic, 2019

Dress in Layers

- First Layer:
 - Thin layer that wicks away sweat from your skin (avoid cotton)
- Second Layer:
 - Add a layer of fleece or wool to insulate
- Third Layer:
 - Waterproof, breathable outer layer or shell

Mayo Clinic, 2019

Protect your hands, feet, head & ears

- Our extremities are vulnerable to frostbite
- Wear thin gloves under thick gloves
 - Put **ON** gloves before your hands are cold
 - **REMOVE** outer gloves before your hands start to sweat
- Wear thermal socks or two pairs of socks
- Wear a hat or headband to protect your ears
- Consider a ski mask or scarf to protect your face

Mayo Clinic, 2019

Safety Gear & Sunscreen

- Reflective gear
- Bike: headlights & taillights
- Wear proper footwear
 - Tracks
- If you're going to be in the sun
 - Use sunscreen that blocks UVA & UVB rays
 - Use lip balm with sunscreen as well
- Wear goggles or dark glasses

Mayo Clinic, 2019

Drink Plenty of Fluids

- Stay **HYDRATED**:
 - It can be hard to notice if you're dehydrated in the cold
 - Replace what you lose in sweat
- Water Recommendations (Mayo Clinic, 2021)
 - Men 15.5 cups → 124 fluid ounces
 - Women 11.5 cups → 92 fluid ounces
- Drink water or a sports drink
 - before
 - during
 - after a workout

Mayo Clinic, 2019

Tips to keep you motivated during the winter months:

- Exercise with a partner or group = ACCOUNTABILITY
- Focus on the mental health benefits
 - Better mood, less stressed & more relaxed
- Plan ahead: check the weather & schedule your workout
- Find a local swimming pool (great cardio workout + warm)
- Change into exercise clothes as soon as you get home
 - Sleep in them for morning workouts

Other things to consider:

- Know when to move your workout indoors
- Exposed skin can develop frostbite in 30 minutes at a wind chill of -19°F.
- Winter exercise boosts immunity during cold and flu season.
- Sunshine boosts our mood and helps with Vitamin D.

Exercising Indoors

- Follow exercise recommendations
 - Guidelines for Adults
 - Guidelines for Older Adults
- Exercise at a proper intensity
- Wear adequate clothing & footwear
- Use appropriate equipment

Exercise recommendations for Adults:

- Move more and sit less
- 150 - 300 minutes moderate-intensity aerobic exercise per week
– OR –
75 - 150 minutes vigorous-intensity aerobic exercise per week
- Muscle Strengthening of moderate or greater intensity 2x/week
- All major muscle groups
- 2-3 sets, 8-12 repetitions

CDC, 2020

Exercise recommendations for Older Adults:

- Move more and sit less
- 150 - 300 minutes moderate-intensity aerobic exercise per week
– OR –
75 - 150 minutes vigorous-intensity aerobic exercise per week
- Strength: 2x/week, 2-3 sets, 8-12 reps – all major muscle groups
- Multicomponent Physical Activity
 - Reduces Fall Risk
 - Improves Physical Function

CDC, 2020

Exercise Intensity

- Moderate-Intensity Exercise
 - 50% to 70% of your maximum heart rate
- Vigorous-Intensity Exercise
 - 70% to 85% of your maximum heart rate
- Finding your Age-Related Maximum Heart Rate
 - $220 - \text{your age} = \text{Maximum Heart Rate}$
 - Example: $220 - 29 = 191 \text{ Max HR}$
 - Moderate-Intensity: 95 – 134 bpm
 - Vigorous-Intensity: 134 – 162 bpm

American Heart Association, 2018

Moderate-Intensity Aerobic Activities:

- Brisk Walking (at least 2.5 MPH)
- Water Aerobics
- Dancing (ballroom or social)
- Gardening
- Biking (Slower than 10 MPH)

American Heart Association, 2018

Vigorous-Intensity Aerobic Activities:

- Hiking Uphill or with a heavy backpack
- Running
- Swimming laps
- Aerobic Dancing
- Heavy Gardening (Continuous Digging or Hoeing)
- Cycling (10 MPH or faster)

American Heart Association, 2018

Proper Footwear:

- Comfortable & Safe
- Aligns with the activity you want to do
- Shoes should have:
 - Flat, non-skid soles
 - Good heel support
 - Room for your toes
 - Cushioned arch
- Replace shoes:
 - Tread is worn out
 - Feet, shins or hips begin to hurt when exercising

Proper Clothing:

- Comfortable & allow you to move easily
- Aligns with the activity you want to do
 - Shorts great for basketball, but not yoga
- Cold weather requires layers
- Look for clothes that:
 - Wick away moisture
 - Allows air to circulate

Using Proper Equipment:

- Use a wide range of equipment
- What do you have at home ?
 - Milk jugs & canned veggies make great dumbbell replacements
 - Stairs are great for step-ups or stair climbing
- Invest in quality pieces of equipment
 - Bands
 - 1 or 2 good sets of dumbbells
 - Mat
 - Jump rope
- Replace equipment if it begins to wear out or break down

What makes up a good workout?

- Complete 2-3 days (full body or alternating) resistance training
- Complete 3-5 days aerobic training (150 mins moderate, 75 mins vigorous)
- Warm up (5-10 minutes)
- Workout (ex: 2-3 sets, 8-12 repetitions, 8-10 exercises) – OR –
- Cardio (30-50 minutes aerobic exercise)
- Cool Down (10 minutes)
- Resources
 - ACSM.org
 - Video tutorials or correct exercise technique

Making exercise modifications:

- When?
 - It's important to make a modification when you cannot successfully complete the full exercise movement safely.
 - Includes: no access to equipment or limited strength and/or range of motion
- How?
 - Changing angles (Wall push-up vs. full ext floor push-up)
 - Changing Surface (Stable vs. unstable → Sit-up on the floor vs. on a ball, 1 leg vs. 2 legs)
 - Changing the Range of Motion (Step-ups → step up 3" vs. 24")
 - Equipment (Bands vs. dumbbells)

Identifying muscle groups:

- Target the eight major muscle groups:
 - Shoulders
 - Arms
 - Chest
 - Abdomen
 - Back
 - Buttocks
 - Legs

Common Exercises:

- Shoulders:
 - Shoulder Press
 - Lateral Raises
- Arms:
 - Bicep Curls
 - Triceps Extension
- Chest:
 - Push-ups
 - Bench Presses
- Abdomen:
 - Planks
 - Crunches

Common Exercises:

- Back:
 - Rowing Exercises
 - Pull-ups
- Buttocks:
 - Lunges
 - Hip Thrusts
- Legs:
 - Leg Press or Squats
 - Calf Raises

Questions?

Engage Wellness:

- Whole-person wellness & health promotion facility
 - We are open and follow COVID guidelines to ensure safety for our members
- Offer:
 - Individualized fitness & wellness programming
 - State of the art exercise equipment that's safe & easy to use
 - Group Movement Classes (Virtual)
- Interested in trying Engage Wellness
 - Contact me: Chelsea.Lewis@unmc.edu
 - Call us at 402-552-7210
 - Ask your Doctor to refer you via fax or through OneChart
 - Check us out at:
 - <https://www.unmc.edu/engage/>

References:

- American Heart Association Recommendations for Physical Activity in Adults and Kids. www.heart.org. (2018, April 18). <https://www.heart.org/en/healthy-living/fitness/fitness-basics/aha-recs-for-physical-activity-in-adults>.
- Centers for Disease Control and Prevention. (2020, October 7). *How much physical activity do adults need?* Centers for Disease Control and Prevention. <https://www.cdc.gov/physicalactivity/basics/adults/index.htm>.
- Mayo Foundation for Medical Education and Research. (2019, June 29). *Winter fitness: Safety tips for exercising outdoors*. Mayo Clinic. <https://www.mayoclinic.org/healthy-lifestyle/fitness/in-depth/fitness/art-20045626>.
- Mayo Foundation for Medical Education and Research. (2020, October 14). *How much water do you need to stay healthy?* Mayo Clinic. <https://www.mayoclinic.org/healthy-lifestyle/nutrition-and-healthy-eating/in-depth/water/art-20044256#:~:text=The%20U.S.%20National%20Academies%20of,fluids%20a%20day%20for%20women>.
- Safety Tips for Exercising Outdoors for Older Adults*. (2020, April 2). <https://www.nia.nih.gov/health/safety-tips-exercising-outdoors-older-adults>.
