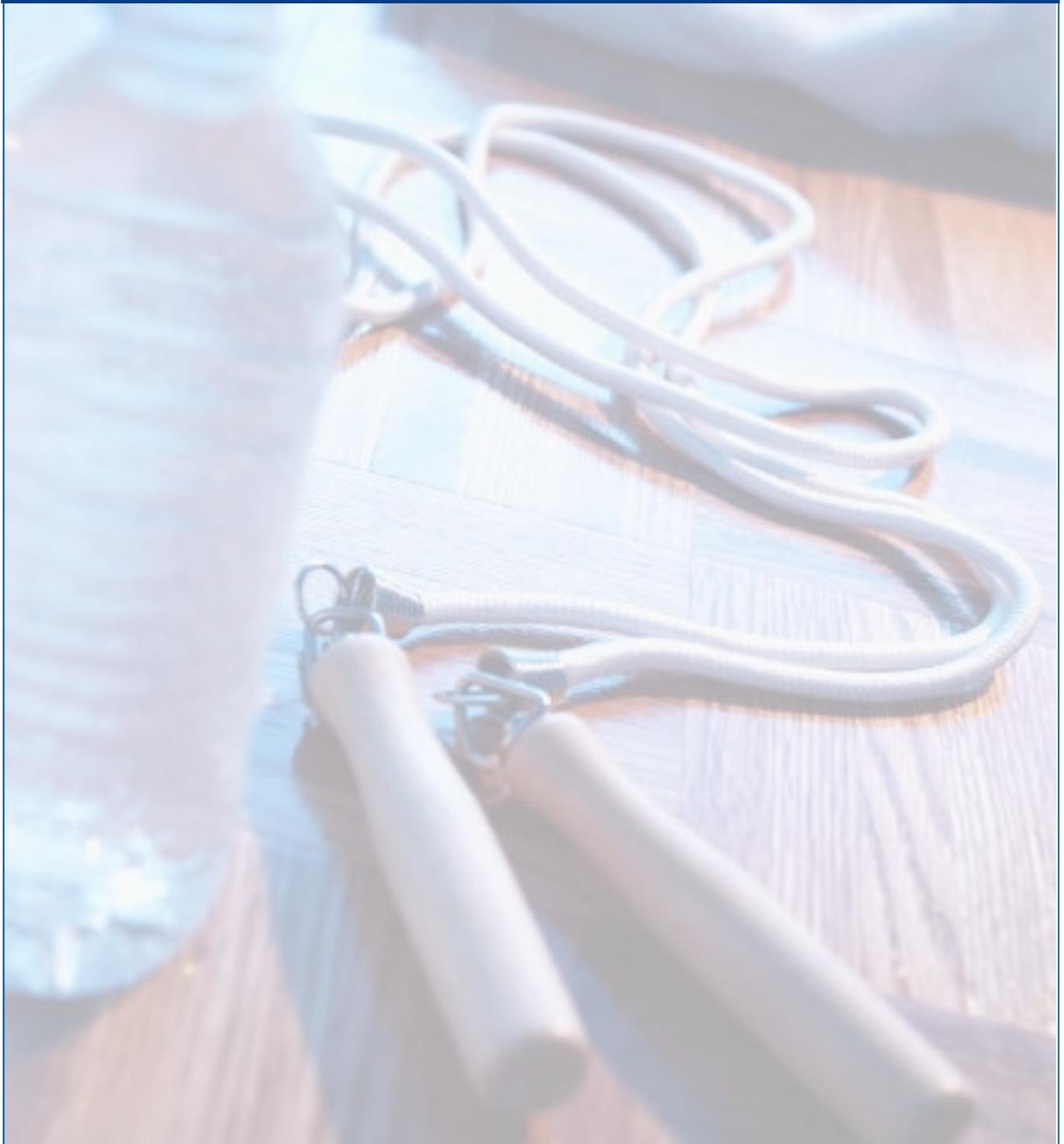


Lesson 3: Get Your Move On



Lesson 3: Get Your Move On

Background Information

Physical activity involves using energy to move the body. **Heart rate** and **breathing rate** change depending upon the degree of **intensity** of the activity. Heart rate may be measured by taking your **pulse** near your wrist or just under your jawline. Aerobic activities cause you to breathe harder and your heart to beat faster. Aerobic activities can be low, moderate, or vigorous in intensity. Moderate physical activities include walking, gardening, dancing, and golf, among other activities. Vigorous physical activities include running, swimming, and playing basketball, among other activities. Stretching activities are low intensity, and help prevent injuries and improve **flexibility**.

Inhaling oxygen into your **lungs** enables the **heart** to pump the oxygenated blood through **arteries** to the rest of the body. The body needs oxygen to function and be active. As the body uses energy and oxygen, **carbon dioxide** is produced and **exhaled** out of the body.



Many health benefits result from regular physical activity. Some benefits of being active may include increased muscle and bone strength, sleep improvement, weight maintenance, and reduced risk of **chronic diseases** such as heart disease and type 2 diabetes. It is recommended that adults participate in at least 2 hours and 30 minutes of moderate physical activity per week, or 1 hour and 15 minutes of vigorous physical activity per week.

Concepts and Vocabulary

Artery: A vessel that carries blood from the heart to the rest of the body.

Breathing rate: The number of times an individual breathes in one minute.

Carbon dioxide: A gas produced by and exhaled from the body.

Chronic disease: A disease that lasts for a long period of time or persists in the body.

Exhale: To breathe air out of the lungs.

Flexibility: The ability to bend and move the body with ease.

Heart: The organ responsible for pumping blood through veins and arteries in the body.

Heart rate: The number of times an individual's heart beats in one minute.

Inhale: To draw air into the lungs.

Intensity: The level at which an activity is conducted, including mild, moderate, and vigorous intensities.

Lungs: The two organs responsible for breathing air.

Oxygen: A gas consumed by breathing that is necessary for life.

Pulse: The physical beat felt on the wrist or jawline as a result of an artery expanding due to blood movement.



3.1: Learning Activity

Getting Ready



Time Required

30 minutes



Materials Needed

(*Materials provided in the curriculum)

- Flip chart paper
- Markers, pens, or pencils
- Stopwatch or watch with a second hand
- *Physical Activity Cards (Appendix 3A)
- *Physical Activity Intensities (Appendix 3B)
- *Activity Chart (Appendix 3C)

Optional:

- *Focus on Food Lesson 1 (PowerPoint)
- Computer
- PowerPoint Projector



Preparation

1. Make copies of *Physical Activity Cards* (Appendix 3A), one set per group.
2. Make copies of *Physical Activity Intensities* (Appendix 3B), one per group.
3. Make copies of *Activity Chart* (Appendix 3C), one per participant.
4. Organize the class into small groups of 2 to 4 participants.

Facilitator Tip: These can be the same groups that were formed in earlier lessons.

5. Provide each group with a sheet of flip chart paper and markers, pens, or pencils to answer opening questions/prompts.

Optional:

6. Before participants arrive, connect laptop to projector. Load *Focus on Food Lesson 3* (PowerPoint).



Appendix 3B – Physical Activity Intensities

Low-level Physical Activity
Low activity is a slow, almost resting activity level in which the body uses minimal energy to work. The body might have a very small increase in amount of breathing and its pulse. However, normal breathing occurs and the body does not usually sweat too much. If at all, a person doing a low-level activity should be able to talk to you while doing the activity.

Moderate-level Physical Activity
Moderate activity is a medium activity level in which the body is using energy to work. Sweating, increased breathing rate, and increased heart rate are clear as a result of moderate-level activity. Approximately 4-7 Calories are burned each minute while participating in moderate-level activity. A person participating in a moderate-level activity should be able to talk, but may not be able to sing.

Vigorous-level Physical Activity
Vigorous activity is a high activity level in which the body is using a lot of energy to work hard. Normal breathing and normal-level activity may include heavy sweating, the heart rate, and increase of oxygen above 17 Calories are burned each minute while participating in vigorous-level activity. A person doing a vigorous-level activity would have difficulty talking.

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Appendix 3C – Activity Chart

Level of Intensity	Measurement	
	Heart Rate	Breathing Rate
Resting		
Moderate		
Vigorous		

Describe how you felt while resting:

Describe how you felt while doing moderate physical activity:

Describe how you felt while doing vigorous physical activity:

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Opening Questions/Prompts

1. **Say:** Let's get started with Lesson 3 – Get Your Move On! To begin, I'd like everyone to discuss some opening questions within your group. Once you've discussed the prompts within your groups, we will come back together as a class and discuss your thoughts and responses as a whole. **(Slide 2)**

The first prompt I'd like you to discuss within your groups is:

- Explain what you know about exercise. **(Slide 3)**
2. **Do:** Allow 2 to 3 minutes for groups to discuss the prompts.
 3. **Say:** Now I'd like you to discuss within your groups the next prompt:
 - Explain why you think exercise might be important. **(Slide 4)**
 4. **Do:** Allow 2 to 3 minutes for groups to discuss the prompts.
 5. **Say:** As a class, let's discuss what you talked about in your groups. What were some of your thoughts on the first prompt, "Explain what you know about exercise"?

Facilitator Tip: This sharing phase is a great opportunity to begin to build rapport with participants. Some statements and questions to help engage participants at this phase are: "Tell me more about that"; "What do you mean by..."; "How is that motivating you?"; "Did anyone else write this?"; "That's a very popular opinion." At this stage, it is important that you do not correct misconceptions. Instead, make note of them, and if they are not corrected organically through the lesson, address them briefly at the end of the lesson.

6. **Do:** Allow about a minute for participants to share their thoughts on this topic with the class.

Facilitator Tip: Continue to make note of misconceptions as they arise. Assure participants that there will be more time to discuss these topics at the end of the lesson.

7. **Say:** What were some of your thoughts on the second prompt, "Explain why you think exercise might be important."?
8. **Do:** Allow about a minute for participants to share their thoughts on this topic with the class.

Facilitator Tip: Continue to make note of misconceptions as they arise. Assure participants that there will be more time to discuss these topics at the end of the lesson.



Procedure (Experiencing)

1. **Say:** Now that we've completed our opening discussion, we'll start on the activity for this lesson. This activity involves physical activity. I am going to hand out some cards with descriptions of different physical activities. I'd like you to
 - Read the *Physical Activity Cards* (Appendix 3A)



- Organize the different activities based on similarities and differences between the activities. **(Slide 6)**
- Record how you organized your cards on the flip chart paper.

Organize your physical activity cards based on similarities and differences between the activities.

2. **Do:** Provide each group with a copy of the *Physical Activity Cards* (Appendix 3A).

Facilitator Tip: While participants are organizing the cards, visit with each group and ask them to describe how they are organizing them.

Facilitator Tip: If a group finishes organizing their *Physical Activity Cards* before the other groups have finished, encourage them to try other ways of organizing the cards.

3. **Say:** Next, I'm going to distribute a handout. I'd like you to:

- Read the *Physical Activity Intensities* Handout.
- Organize the different activities based on low, moderate, and vigorous levels of physical activity. **(Slide 7)**
- Record your organization on your flip chart paper.

Read the *Physical Activity Intensities* handout. Organize the different activities based on low, moderate, and vigorous levels of physical activity.

4. **Do:** Provide each group with a copy of the *Physical Activity Intensities* (Appendix 3B).

Facilitator Tip: While participants are organizing the cards, visit with each group and ask them to describe how they are deciding which activities are low, moderate, and vigorous.

5. **Say:** Now I'd like each group to share how they initially organized the different activities, and then how they categorized the various activities into low, moderate, or vigorous level. **(Slide 8)**

Facilitator Tip: If breathing rate or heart rate is mentioned during the discussion, place emphasis on these responses by asking participant to describe what they mean by these terms (or similar terms). Ask them to describe what they mean by the term or to elaborate on why they think that happens. For example, if a participant says "We decided that running was vigorous because you're breathing hard" follow up with "Why do you think you breathe harder when running compared to walking?" Through follow-up questions, try to guide participants to verbalize:



- The lungs take in oxygen and expel carbon dioxide, and more vigorous activity means more carbon dioxide is produced, and more oxygen is needed.
- The heart pumps faster to move more oxygen-rich blood from the lungs to the muscles, and to move carbon dioxide from muscles to the lungs where it can be breathed out.

6. **Say:** Now we're going to engage in a little physical activity. Before we start, I'm going to distribute a handout. On this handout, record how you currently feel while resting, using descriptive words. **(Slide 9)**

Record on your handout how you currently feel while at rest.

7. **Do:** Provide each participant with a copy of the *Activity Chart* Handout (Appendix 3C). Allow one minute for participants to record how they currently feel.

Resting

8. **Say:** Next, I need everyone to take his or her resting pulse on your wrist or jawline. I'll measure 6 seconds. Count the number of pulses in 6 seconds and multiply by 10 to find your resting heart rate in 1 minute. **(Slide 10)**
9. **Do:** Using a watch or stopwatch, time 6 seconds and announce when time is up.
10. **Say:** Now multiple the number of pulses by 10, and record this number on your handout under resting heart rate. Next, we'll measure our resting breathing rate. One breath equals one inhale and one exhale. Count the number of breaths you take in 6 seconds and multiply by 10 to find your resting breathing rate in 1 minute. **(Slide 11)**
11. **Do:** Using a watch or stopwatch, time 6 seconds and announce when time is up.
12. **Say:** Now multiple the number of breaths by 10, and record this number on your handout under resting breathing rate.

Take your pulse on your wrist or jawline.
Count the number of pulses in 6 seconds.
Multiply by 10 to find your heart rate.
Record this on your handout.



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Count the number of breaths (one inhale and one exhale equals one breath) in 6 seconds.
Multiply by 10 to find your resting breathing rate.
Record this on your handout.

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Walk in place for 30 seconds.

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Moderate Exercise

13. **Say:** Now everyone who can comfortably do so should stand up and walk in place (or around the room if space allows) for 30 seconds. **(Slide 12)**
Facilitator Tip: Dim lights in the room to allow participants to feel more comfortable while walking in place.
Facilitator Tip: Join the participants in walking in place or around the room for 30 seconds.
14. **Do:** Using a watch or stopwatch, time 30 seconds and announce when time is up.
15. **Say:** Everyone, please return to your tables. Now you'll take your pulse and breathing rate again and record these on your handout under moderate. **(Slides 13-14)**
16. **Do:** Repeat the steps for measuring pulse and breathing rate
17. **Say:** On this handout, record how you currently feel after moderate activity, using descriptive words. **(Slide 15)**
Facilitator Tip: If a participant is unable to do the activity, ask them to partner with a group member who performed the activity to share their responses regarding how they felt during the physical activity and their recorded moderate heart rate and breathing rate.

Count the number of breaths (one inhale and one exhale equals one breath) in 6 seconds.
Multiply by 10 to find your resting breathing rate.
Record this on your handout.

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Take your pulse on your wrist or jawline.
Count the number of pulses in 6 seconds.
Multiply by 10 to find your resting heart rate.

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Record on your handout how you felt doing moderate exercise.

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Vigorous Exercise

18. **Say:** Now everyone who can comfortably do so should stand up and do jumping jacks, "standing jacks", or "walking-in-place jacks" for 30 seconds. **(Slide 16)**

Do jumping jacks for 30 seconds.

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Facilitator Tip: Inform participants that modified jumping jacks (such as “standing jacks” or “walking-in-place jacks”) are an acceptable alternative if they feel more comfortable.

Facilitator Tip: Dim lights in the room to allow participants to feel more comfortable while doing jumping jacks.

Facilitator Tip: Join the participants in doing jumping jacks for 30 seconds.

19. **Do:** Using a watch or stopwatch, time 30 seconds and announce when time is up.
20. **Say:** Everyone, please return to your tables. Now you’ll take your pulse and breathing rate again and record these on your handout under vigorous. **(Slide 17-18)**
21. **Do:** Repeat the steps for measuring pulse and breathing rate.
22. **Say:** Now multiple the number of pulses by 10, and record this number on your handout under moderate heart rate. Next, we’ll measure our vigorous breathing rate. Count the number of breaths you take in 6 seconds. **(Slide 18)**
23. **Say:** On this handout, record how you currently feel after vigorous activity, using descriptive words. **(Slide 19)**

Facilitator Tip: If a participant is unable to do the activity, ask them to partner with a group member who performed the activity to share their responses regarding how they felt during the physical activity and their recorded vigorous heart rate and breathing rate.

24. **Say:** Within your small groups, compare how you felt while resting, walking in place, and doing jumping jacks. **(Slide 20)**

Take your pulse on your wrist or jawline.
Count the number of pulses in 6 seconds.
Multiply by 10 to find your heart rate.
Record this on your handout.

Count the number of breaths (one inhale and one exhale equals one breath) in 6 seconds.
Multiply by 10 to find your resting breathing rate.
Record this on your handout.

Record on your handout how you felt doing vigorous exercise.

In your groups, compare how you felt when you were resting, walking in place, and doing jumping jacks.



Sharing, Processing, and Generalizing

1. **Say:** As a class, let’s discuss your observations about resting, moderate, and vigorous levels of activity. **(Slide 21)**
2. **Do:** Follow the group’s line of thinking, and if necessary, ask more targeted questions.
 - Explain what the activities have in common. Explain how the activities are different.
 - Explain what you noticed about how your body responded to walking in place versus doing jumping jacks.
 - Explain what you noticed about your heart rate and breathing rate during the different activities.
 - If breathing rate or heart rate is mentioned during the discussion, place emphasis on these responses by asking participant to describe what they mean by these terms (or similar terms). Ask them to describe what they mean by the term or to elaborate on why they think that happens. Through follow-up questions, try to guide participants to verbalize:



- » The lungs inhale oxygen and exhale carbon dioxide. More vigorous activity increases the need for oxygen while muscles produce more carbon dioxide.
- » The heart pumps faster to move more oxygen-rich blood from the lungs to the muscles, and to move carbon dioxide from muscles to the lungs where it can be exhaled.

Facilitator Tip: If there are any misconceptions remaining in this phase of the lesson, you should address these now.



Concept and Term Discovery/Introduction

Over the course of the lesson, participants should be able to identify the following concepts:

- Participants should understand the benefits of physical activity, including heart health, bone strength, sleep and mood improvement, reduced risk of chronic disease, muscle strength, and flexibility.
- Participants should recognize that any type and length of time being physically active is better than none, and they can exercise any time that works for them.
- Participants should also know that breathing rate and heart rate will differ depending upon the level of intensity of the activity they are doing.

The following key vocabulary terms should be discovered by participants or introduced to them: breathing rate, carbon dioxide, exhalation, heart rate, inhalation, intensity, oxygen, and pulse.



3.2: Expanding Knowledge

Getting Ready



Time Required

10 minutes



Materials Needed

(*Materials provided in the curriculum)

- **Focus on Food Lesson 3* (PowerPoint)
- PowerPoint Projector
- Computer



Preparation

1. Connect laptop to projector. Load *Focus on Food Lesson 3* PowerPoint.
2. Queue the PowerPoint presentation to Slide 22.



Procedure

1. Go through the Expanding Knowledge presentation slide by slide. The following script is available for use if you so choose.



Expanding Knowledge

Lesson 3: Get Your Move On

Slide 22

Slide 22

Let's review some of the concepts we learned during Lesson 3, Get Your Move On.

What is physical activity?

- Anything that involves using energy to move the body.
- Sometimes its called exercise, sometimes its called “working out.”
- It doesn’t matter what you call it, as long as you’re moving.

Lesson 3: Get Your Move On

Slide 23

Slide 23

Physical activity is anything that involves using energy to move the body. Sometimes we call it exercise or “working out” but it doesn’t matter what you call it, as long as you’re moving.

Heart Rate and Breathing Rate

- Heart rate and breathing rate increase when exercising.
- Muscles are working harder:
 - Need more oxygen.
 - Making more carbon dioxide.

Lesson 3: Get Your Move On

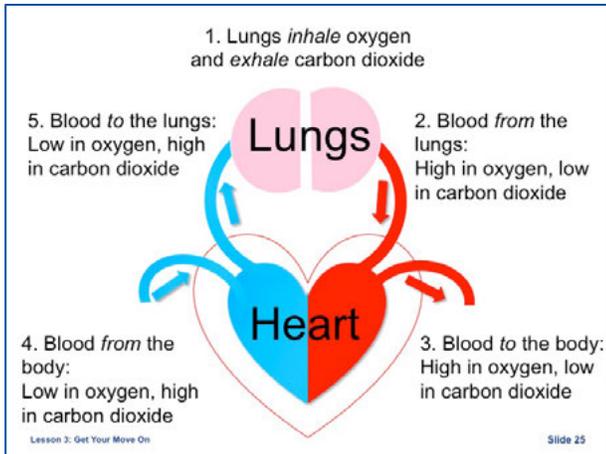
Slide 24

Slide 24

Heart rate and breathing rate increase when exercising.

More vigorous activity increases the need for oxygen while muscles produce more carbon dioxide.

The lungs inhale oxygen and exhale carbon dioxide. The heart pumps faster to move more oxygen-rich blood from the lungs to the muscles, and to move carbon dioxide from muscles to the lungs where it can be exhaled.



Slide 25

This is the cycle of how our heart and lungs work together to make sure we have enough oxygen and that we are getting rid of carbon dioxide.

Let's start the cycle at the lungs. Step 1, we inhale oxygen into our lungs. This oxygen is picked up by red blood cells, oxygenating the blood.

Step 2. The oxygen-rich blood returns to the heart.

Step 3. The heart then pumps blood to the body that is high in oxygen, and low in carbon dioxide. As it is pumped through the body, the blood drops off oxygen and picks up carbon dioxide.

Step 4. The result is blood that is low in oxygen and high in carbon dioxide. The blood works its way back to the heart.

Step 5. The heart then pumps the deoxygenated blood to the lungs. The lungs exhale the carbon dioxide, and inhale oxygen, and the process starts over.

Maximum Heart Rate

- Maximum heart rate:
 - Upper limit of what your heart can handle during physical activity.
- Easy way to calculate: subtract your age from 220.
- Example: a 50-year-old would have a maximum heart rate of 170 beats per minute.

Lesson 3: Get Your Move On

Slide 26

Slide 26

Hearts can only beat so fast, and the upper limit of what your heart can handle during physical activity is your maximum heart rate. There's a simple way to figure out what that would be.

Subtract your age from 220. For example, a 50-year-old would have a maximum heart rate of 220 minus 50, which works out to 170 beats per minute.

Target Heart Rate

- Target heart rate: heart is working harder, but not too hard.
- Target is 50 to 70% of maximum.
- Example: a 50-year-old would have a target heart rate of 85 to 119 beats per minute.

Lesson 3: Get Your Move On

Slide 27

Slide 27

However, you don't want to aim for your maximum heart rate. You want to aim for your target heart rate, which is the sweet spot where your heart is working harder, but not too hard.

It's recommended to aim for a target heart rate of 50 to 70% of your maximum heart rate. Going back to our previous example, a 50-year-old's maximum heart rate is 170. 50 to 70% of 170 is 85 to 119 beats per minute.

If you're not fit or you're just beginning an exercise program, aim for the lower end of your target zone (50%). Then, gradually build up the intensity. If you're healthy and want a vigorous intensity, opt for the higher end of the zone.

Light or Low

Slow, almost resting

- Small ↑ in breathing rate, heart rate.
- Not much sweat.
- Can talk and sing

Moderate

Medium activity level, using more energy than light activity

- Greater ↑ in breathing rate, heart rate.
- Increase in sweating.
- Can talk, but not sing.

Vigorous

High activity level, using a lot of energy

- Heavy breathing, fast heart rate.
- Increase in sweating.
- Difficulty talking.

Lesson 3: Get Your Move On

Slide 28

Slide 28

To recap some of what we investigated in the activity earlier, light or low activity results in a small increase and breathing and heart rate, One way to know is if you are able to sing during the activity. What are some examples you can think of?

[Pause to allow responses from class.]

In moderate activity, you can talk but not sing, and the increases in breathing rate and heart rate are greater. What are some examples of moderate activity?

[Pause to allow responses from class.]

Vigorous activity involves heavy breathing and a fast heart rate. It becomes more difficult to talk when doing the activity. What are some examples of vigorous activity?

Types of Physical Activity

Weight-Bearing Physical Activity

- Physical activity that involves working against gravity to move a weight

Non Weight-Bearing Physical Activity

- Physical activity that does not involve working against gravity to move a weight

Lesson 3: Get Your Move On

Slide 29

Slide 29

Who here has heard of weight-bearing physical activity before? Can anyone explain why it's important?

[Pause to allow responses from class.]

Weight-bearing exercise is important because it helps build and maintain strong bones. Weight-bearing physical activity is any activity that involves working against gravity to move a weight. It doesn't mean you need to lift heavy weights and barbells, it can be your own weight.

For example, walking, running, dancing, those are all weight-bearing because you are bearing your own weight and working against gravity.

Non weight-bearing means that your weight is being at least partially supported. In swimming, the water helps bear some of your weight, while in biking, the bike does.

What does physical activity do for us?

- Increased muscle and bone strength
- Improved sleep
- Helps with weight maintenance
- Reduced risk of chronic diseases, such as heart disease or type 2 diabetes.

Lesson 3: Get Your Move On

Slide 30

Slide 30

We've learned that weight-bearing physical activity helps build and maintain strong bones, but it also helps increase muscle strength. It can result in improved sleep.

While exercise alone without calorie reduction doesn't tend to result in weight loss, it can help with keeping your weight stable.

Physical activity also reduces risk of chronic diseases, such as heart disease or type 2 diabetes.

What are some other benefits of physical activity you can think of?

Physical Activity Recommendations

Adults

- 2 hours and 30 minutes of moderate physical activity
or
- 1 hour and 15 minutes of vigorous activity each week.

Lesson 3: Get Your Move On

Slide 31

Slide 31

The Dietary Guidelines for American has the following recommendation for physical activity:

Adults should have at least 2 hours and 30 minutes of moderate physical activity, or 1 hour and 15 minutes of vigorous activity per week. Why do you think that you would need more moderate activity compared to vigorous?

[Pause to allow responses from class.]

Your body is working harder with vigorous activity, so you can get the same benefits in a shorter amount of time. This doesn't mean you have to do all of one or the other.

You can mix it up and do whatever proportion makes sense for you. 2 hours and 30 minutes of moderate activity works out to about 30 minutes, 5 days week. 1 hour and 15 minutes of vigorous could mean 15 minutes of vigorous activity 5 days a week.

Or you could do 30 minutes of moderate three days, and 15 minutes of vigorous two days. It should be what works for your life.

Physical Activity Recommendations

Children

- 60 minutes each day
 - Vigorous activity at least three days per week.

Lesson 3: Get Your Move On

Slide 32

Slide 32

Children are recommended to do 60 minutes of physical activity each day, with vigorous activity at least three of those days.



3.3: Goal Setting Activity

Getting Ready



Time Required

5 minutes



Materials Needed

(*Materials provided in the curriculum)

- **Goal Setting: Get Your Move On* (Appendix 3D)
Optional:
- **Focus on Food Lesson 3 Newsletter* (Appendix 3E)
- **Focus on Food Lesson 3* (PowerPoint)
- Computer
- PowerPoint Projector

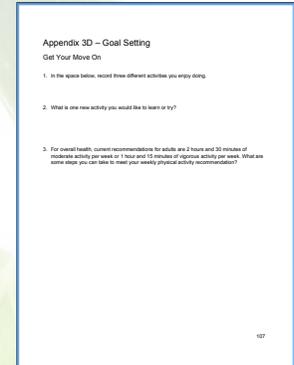


Preparation

1. Make copies of the *Goal Setting: Get Your Move On* Handout (Appendix 3D), one for each participant.

Optional:

2. Make copies of the *Focus on Food Lesson 3 Newsletter* (Appendix 3E), one for each participant.
3. Connect laptop to projector. Load *Focus on Food Lesson 3* (PowerPoint).
4. Queue the PowerPoint Presentation to Slide 33.





Procedure (Experiencing)

1. **Say:** Now let's move on to Goal Setting! **(Slide 33)** We've talked about how important consuming a variety of foods is to our health. The next step is to set some goals and make a plan. I am going to distribute a Goal Setting Handout that has the following questions: **(Slide 34)**

- 1) Record three different activities you enjoy doing.
- 2) What is one new activity you would like to learn or try?
- 3) What are some steps you can take to meet your weekly physical activity recommendation?

Facilitator Tip: Allow participants to refer to the moderate and vigorous activity examples they previously explored for ideas on how to meet their weekly physical activity recommendations.

2. **Do:** Provide a copy of the *Goal Setting Handout: Get Your Move On* (Appendix 3D) to each participant. Allow participants a few minutes to complete the handout.
3. **Say:** Would anyone like to share the goals they set for themselves?

Optional:

4. **Say:** I'm going to distribute one last handout, which is a newsletter with some extra information you might be interested in. Thank you all for participating in Lesson 3! **(Slide 35)**
5. **Do:** Provide a copy of the *Focus on Food Lesson 3 Newsletter* (Appendix 3E) to each participant.



Appendix 3A – Physical Activity Cards

Stretching

Stretching is an activity in which someone extends and lengthens different parts of the body.

Benefits of stretching include:

- Improved flexibility
- Decreased risk of injury
- Improved athletic performance in certain activities
- Increased blood flow to muscles

Playing Catch

Playing catch is an activity that generally two or more people participate in together. One person throws a ball to another person who catches the ball. The person who caught the ball then throws it back to the first person, or to anyone else playing.

Benefits of playing catch include:

- Improved hand-eye coordination
- Muscle strengthening

Gardening

Gardening is an activity involving preparing soil, planting, watering, weeding, and harvesting of plants.

Benefits of gardening include:

- Improved heart health
- Muscle strengthening
- Reduced risk of chronic disease
- Improved sleep and mood

Walking

Walking is an activity in which the body moves at a steady pace, placing one foot in front of the other but never having both feet off the ground at the same time.

Benefits of walking include:

- Improved bone strength
- Improved heart health
- Muscle strengthening
- Reduced risk of chronic disease
- Improved sleep and mood

Tennis (Doubles)

Doubles tennis is an activity in which two people are on each side of the tennis court, hitting the tennis ball back and forth over the net.

Benefits of playing doubles tennis include:

- Improved bone strength
- Improved heart health
- Muscle strengthening
- Reduced risk of chronic disease
- Improved sleep and mood

Basketball

Basketball is a team sport that involves running back and forth between defending one basket from being scored on, and offensively trying to score in the basket at the other end of the court.

Benefits of playing basketball include:

- Improved bone strength
- Improved heart health
- Muscle strengthening
- Reduced risk of chronic disease
- Improved sleep and mood

Swimming

Swimming is an activity that incorporates the use of both the arms and legs to move the body through water.

Benefits of swimming include:

- Increased lung capacity
- Improved heart health
- Muscle strengthening
- Reduced risk of chronic disease
- Improved sleep and mood

Running

Running is an activity in which the body moves quickly, placing one foot in front of the other. Often both feet are off the ground at the same time.

Benefits of running include:

- Improved bone strength
- Improved heart health
- Muscle strengthening
- Reduced risk of chronic disease
- Improved sleep and mood

Appendix 3B – Physical Activity Intensities

Low-level Physical Activity

Low activity is a slow, almost resting activity level in which the body uses minimal energy to work. The body might have a very small increase in amount of breathing and its pulse; however normal breathing occurs and the body does not usually sweat very much, if at all. A person doing a low-level activity should be able to sing while doing the activity.

Moderate-level Physical Activity

Moderate activity is a medium activity level in which the body is using energy to work. Sweating, increased breathing rate, and increased heart rate are often a result of moderate-level activity. Approximately 4-7 calories are burned each minute while participating in moderate-level activity. A person participating in a moderate-level activity would be able to talk, but may not be able to sing.

Vigorous-level Physical Activity

Vigorous activity is a high activity level in which the body is using a lot of energy to work hard. Immediate results of vigorous-level physical activity may include heavy breathing, fast heart rate, and increased sweating. More than 7 calories are burned each minute while participating in vigorous-level activity. A person doing a vigorous-level activity would have difficulty talking.

Appendix 3C – Activity Chart

Level of Intensity	Measurement	
	Heart Rate	Breathing Rate
Resting		
Moderate		
Vigorous		

Describe how you felt while resting.

Describe how you felt while doing moderate physical activity.

Describe how you felt while doing vigorous physical activity.

Appendix 3E – Focus on Food Lesson 3 Newsletter

The optional newsletter on the following pages is designed to help reinforce the concepts learned. If offering this course in a single workshop, you may wish to distribute the lesson newsletters weekly in order to help refresh participants' memory and solidify the concepts.

Get Your Move On

In this issue...

You're so intense!
What low, moderate, and
vigorous activity really
means. Page 2

Getting Active Page 2

Heart and Lungs, Working
Together Page 3

What's your resting heart
rate? Page 3

Test your knowledge with
the Physical Activity
Crossword Puzzle! Pages 4-5



Be Active, Be Healthy

Choose to make physical activity a part of your daily routine! Many health benefits result from being physically active. These benefits include increased muscle and bone strength, sleeping better, weight maintenance, and reduced risk of chronic diseases such as heart disease and type 2 diabetes. It can help you live a longer, healthier life – and it can be fun!

It is recommended that adults get at least 2 hours and 30 minutes of moderate physical activity per week, or 1 hour and 15 minutes of vigorous physical activity per week. You don't have to do all one or the other – mix it up! But what counts as moderate, and what counts as vigorous intensity?

Turn the page to learn more about physical activity intensity!

Did you know?

Even activities like gardening and housework count as physical activity – as long as you're moving and getting your heart pumping faster!





Getting Active

Physical activity doesn't mean you have to get an expensive gym membership. Think about the kind of physical activity you enjoyed as a kid. Did you like to play tag? Play tag with your kids or grandkids or nieces and nephews. Did you love to ride your bike around your neighborhood? Give it a try now! If you don't have a bike, borrow one from a friend and get pedaling. Or, just take a nice relaxing walk through a park or around the block.



You're so intense!

What low, moderate, and vigorous activity really mean.

Heart rate and breathing rate change depending upon the degree of intensity of the activity. Heart rate may be measured by taking your pulse near your wrist or just under your jawline. Aerobic activities cause you to breathe harder and your heart to beat faster.

Low-level Physical Activity

Low activity is a slow, almost resting activity level in which the body uses minimal energy to work. The body might have a very small increase in amount of breathing and its pulse, however normal breathing occurs and the body does not usually sweat very much, if at all. A person doing a low-level activity should be able to sing while doing the activity.

Moderate-level Physical Activity

Moderate activity is a medium activity level in which the body is using energy to work. Sweating, increased breathing rate, and increased heart rate are often a result of moderate-level activity. Approximately 3.5-7 calories per minute are burned while participating in moderate-level activity. A person participating in a moderate-level activity would be able to talk, but may not be able to sing while doing the activity.

Vigorous-level Physical Activity

Vigorous activity is a high activity level in which the body is using a lot of energy to work hard. Immediate results of vigorous-level physical activity may include heavy breathing, fast heart rate, and increased sweating. More than 7 calories per minute are burned while participating in vigorous-level activity. A person doing a vigorous-level activity would have difficulty talking while doing that activity.

Heart and Lungs Working Together



Physical activity involves using energy to move the body. **Heart rate** and **breathing rate** change depending upon the degree of intensity of the activity. So why does this happen?

Our cells need **oxygen** to function and be active. When we breathe in, or **inhale**, our lungs take in oxygen. This oxygen gets picked up by red blood cells to make **oxygenated blood**. The heart pumps the **oxygenated blood** through the body so that oxygen can be delivered to the muscles and organs that need it.

Muscles and organs that are working hard make **carbon dioxide**. We don't want too

much of it hanging around, so it gets picked up by blood. The heart keeps right on pumping blood, which delivers the carbon dioxide to our lungs. Our lungs breathe out, or **exhale**, the carbon dioxide to get rid of it.

When our bodies are working hard, our muscles are using more oxygen. They are also making more carbon dioxide that the body needs to get rid of. To keep up with all of this, we need to breathe faster. The lungs **inhale and exhale more often** to bring in more oxygen and get rid of carbon dioxide made by the

muscles that are working hard. This means **breathing rate** increases.

The **heart also needs to pump faster** to carry the oxygenated blood to muscles, and to carry away carbon dioxide back to the lungs, so **heart rate** goes up.

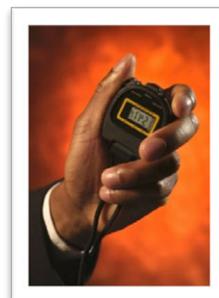
Together, the heart and lungs work to bring oxygen to the muscles, and take away the carbon dioxide that's not needed. And the more practice they get, the better they get at it!

What's your Resting Heart Rate?

Follow these simple steps to find your resting heart rate.



Using two fingers, find your pulse on your wrist or on your neck, just under the jawbone.



Using a clock or stopwatch, count how many beats you feel for 6 seconds.

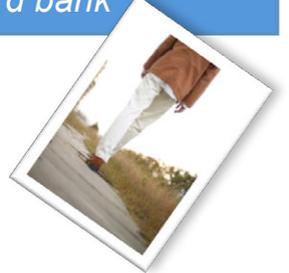


Multiply the number you get by ten. Now you have your resting heart rate in beats per minutes!



Test your knowledge with the Physical Activity Crossword Puzzle!

See the next page for clues and a word bank



A crossword puzzle grid with 24 numbered starting points for words. The grid is composed of white squares for letters and black squares for empty space. The numbers are: 1 (down), 2 (down), 3 (down), 4 (across), 5 (across), 6 (across), 7 (across), 8 (down), 9 (across), 10 (across), 11 (across), 12 (across), 13 (across), 14 (across), 15 (down), 16 (across), 17 (down), 18 (down), 19 (down), 20 (across), 21 (across), 22 (across), 23 (across), and 24 (across).



Physical Activity Crossword Clues



Across

- 4. Slow, almost resting activity level.
- 5. An activity involving preparing soil, planting, watering, weeding, and harvesting plants.
- 9. A gas produced by the body.
- 12. An activity in which the body moves quickly, placing one foot in front of the other. Often both feet are off the ground at the same time.
- 13. A disease that lasts for a long time.
- 14. An activity where one person throws a ball to another person, who catches it.
- 16. A team sport that involves running back and forth between defending one basket, and trying to score in the basket at the other end of the court.
- 20. The ability to bend and move the body with ease.



- 21. Activity in which a person is using energy to work, but is still able to hold a conversation.

- 23. An activity in which someone extends and lengthens different parts of the body.

- 24. The two organs responsible for breathing.

Down

- 1. A gas consumed by breathing that is necessary for life.
- 2. An activity in which the body moves at a steady pace, placing one foot in front of the other but never having both feet off the ground at the same time.
- 3. The organ responsible for pumping blood through the body.
- 6. The level at which an activity is conducted, including low, moderate, and vigorous.
- 7. Blood that has a lot of oxygen.
- 8. An activity with one person on each side of a court, hitting a ball back and forth over a net using rackets.
- 10. The number of times a person breathes in one minute.
- 11. To draw air into the lungs.
- 15. High activity level that is using a lot of energy, and makes it difficult to hold a conversation.
- 17. The number of times the heart beats in one minute.
- 18. An activity that incorporates the use of both the arms and legs to move the body through water.
- 19. The physical beat felt through the skin that is a result of the heart beating.
- 22. To breathe air out of the lungs.



Word Bank

Exhale Stretching Tennis Playing Catch Swimming
Moderate Oxygen Intensity Low Heart
Vigorous Lungs Basketball Running Walking Heart Rate
Oxygenated Blood Pulse Carbon Dioxide Chronic Disease
Inhale Flexibility Breathing Rate Gardening

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