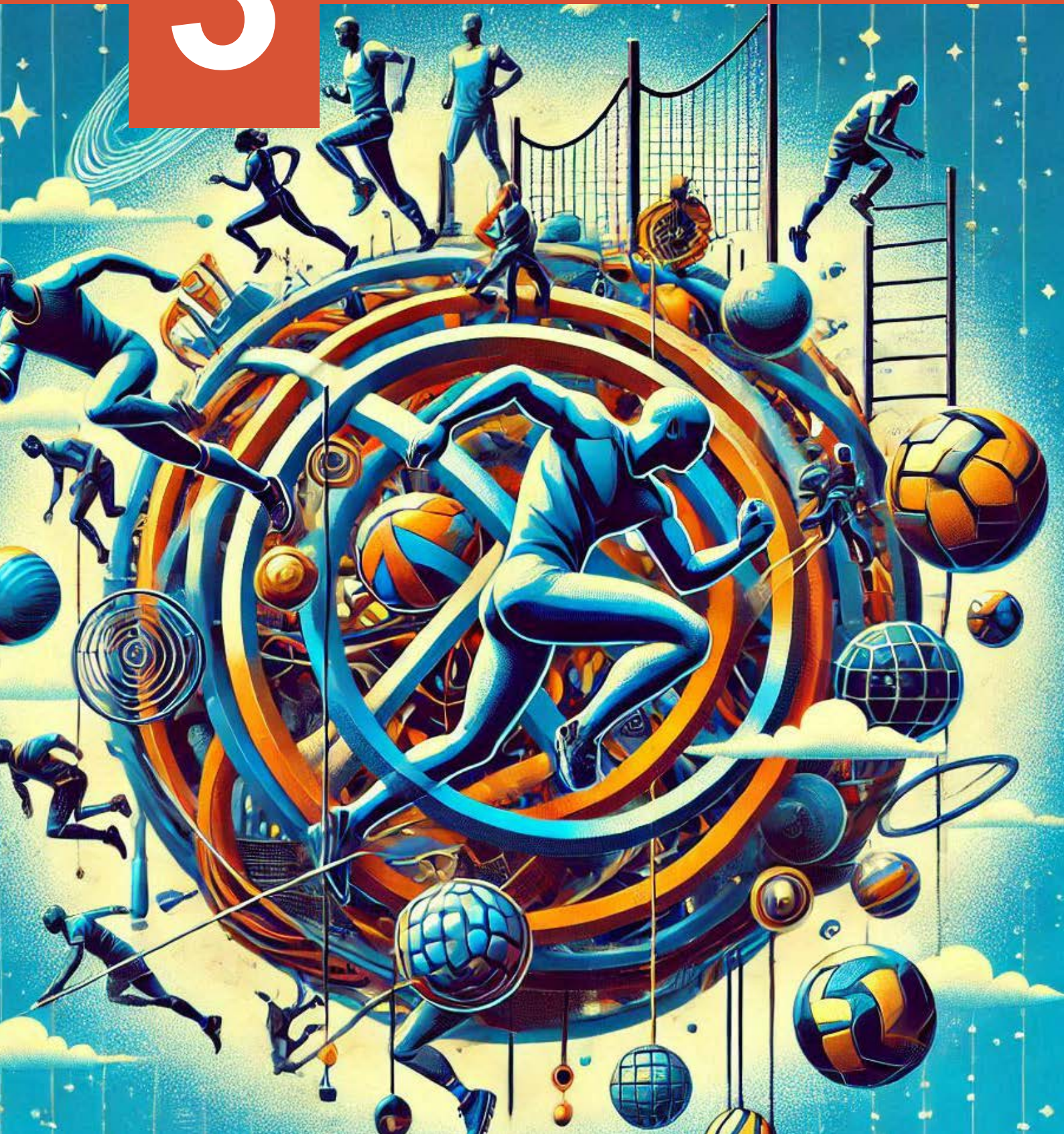


SECTION

3

PHYSICAL ACTIVITY



# PHYSICAL EDUCATION

## Physical Activity for Healthy Living

### INTRODUCTION

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Welcome back, everyone! You have done a fantastic job in Sections 1 and 2, exploring the essential aspects of health and wellness and understanding the intriguing realm of human diseases. Your dedication to learning about healthy choices, disease prevention, and overall well-being has been commendable.

As we move into Section 3, we are going to shift our focus to another crucial component of a healthy lifestyle: physical activity. Building on the knowledge you have gained so far, we will explore how staying active is just as vital as healthy eating and disease prevention in maintaining and enhancing our health. In this section, we will start by understanding what physical activity is and its various forms. From everyday movements like walking and gardening to structured exercises like sports and workouts, you will learn how different activities contribute to your overall fitness and health. We will discuss the many benefits of staying active, including how it improves physical health, boosts mental well-being, and reduces the risk of chronic diseases. You will discover why regular physical activity is a cornerstone of a healthy lifestyle. You will also explore practical ways to incorporate physical activity into your daily routine. From simple exercises you can do at home to finding activities you enjoy. You will learn how to make physical activity a regular and enjoyable part of your life. Throughout this section, we will have interactive discussions, engaging activities, and real-life examples to help you understand and apply the concepts of physical activity. You will have the opportunity to set personal fitness goals, share your experiences, and support each other in leading more active lives.

Your journey so far has been incredible, and I am excited to see you take the next steps towards a healthier, more active lifestyle. Are you ready to dive into the world of physical activity and discover how it can transform your life? Let's get started!

#### At the end of this section, you will be able to

- Explain the concept of physical activity.
- Discuss the importance of physical activity for healthy living.
- Apply the concepts of physical activity in everyday life.

#### Key Ideas

- **Physical Education** is a field of education that focuses on the development of physical fitness, motor skills, knowledge of sports, and overall well-being through structured physical activities and instruction.

- **Physical Activity** refers to any bodily movement produced by skeletal muscles that require energy expenditure.
- **Health** is a state of complete physical, mental, and social well-being, and not merely the absence of disease or infirmity.
- **Healthy Living** involves adopting a lifestyle that promotes physical, mental, and emotional well-being.
- **Health risks** are factors or behaviors that increase the likelihood of developing diseases, injuries, or other health problems.
- **Sedentary behavior** refers to activities that involve little to no physical movement, resulting in low energy expenditure. These activities are typically performed while sitting or lying down.

## IMPLICATION OF PHYSICAL ACTIVITY ON SPORTS PERFORMANCE

As you explore the concept of physical activity, learn what physical activity is, the various forms it can take, and how it contributes to your overall fitness and health. From everyday movements like walking and gardening to structured exercises like sports and workouts. Throughout our discussions, we will engage in activities and look at real-life examples to help you understand and apply these concepts. By the end of this lesson, you will have a clear understanding of what physical activity is and why it is crucial for maintaining a healthy lifestyle.

Get ready to move and learn! Let's dive into the world of physical activity together.

### 1. Health

Health is crucial for everyone's life, and it's important for all of us to work towards achieving good health. Physical activity plays a key role in this.

### 2. Concept of physical activity according to the World Health Organisation (WHO)

According to the World Health Organisation (WHO), physical activity is any bodily movement produced by skeletal muscles that requires energy expenditure. It involves all movements, including those performed during leisure time, for transport to get to and from places or as part of a person's work e.g. walking, cycling, playing games, working at the farm, construction, etc.



**Fig. 3.1:** Examples of Physical Activities

### 3. Recommended physical activity according to WHO

- a. Adults: Aged 18+ years should engage in more than 150 minutes of moderate-intensity activity per week or its equivalent e.g. brisk walking, cycling at a moderate pace, swimming, dancing, hiking on flat terrain gardening.
- b. Adolescent: Active adolescents should engage in more than 60 minutes of moderate to vigorous intensity activity daily e.g. running, sprinting, cycling uphill, skipping rope, sprint swimming and rowing.

### 4. Concept of sedentary behaviour according to WHO

Sedentary behavior refers to sitting, reclining, or lying down for long periods with very low energy expenditure. Examples include sitting for a long time, lying down for extended periods, watching TV, or sitting while selling goods at a market or shop.



Fig. 3.2: Examples of sedentary behaviours

### 5. Relationship between physical activity, physical exercise and physical fitness

- a. **Physical Activity:** This involves any movement that uses energy and involves the muscles, such as walking or playing games.
- b. **Physical Exercise:** This is a planned, structured, and repetitive form of physical activity aimed at improving or maintaining physical fitness.
- c. **Physical Fitness:** This is the measurable state of health and well-being related to strength, endurance, or flexibility.

### 6. Examples of physical activities or ways of being physically active

Examples of physical activities include walking, cycling, gardening, participating in sports, playing traditional games with neighbors, and other enjoyable activities that everyone can do regardless of skill level.

### 7. Forms of physical activity:

There are three main forms of physical activity:

- a. Low Intensity: Activities like walking, sweeping, low-impact dancing, cycling, and swimming.

- b. Moderate Intensity: Activities such as jogging, playing doubles tennis, and skipping with a single leg take-off.
- c. Vigorous Intensity: Activities like running, climbing hills, playing singles tennis, and skipping with a double leg take-off.



**Fig. 3.3:** Levels of Intensity of Physical Activities

The activity pyramid above (fig. 3.3) represents the following:

- Vigorous intensity activities at the base (green).
- Moderate intensity activities in the middle (blue).
- Low intensity activities at the top (gold).

## 8. Measuring exercise intensity

Three different methods can be used to measure one's exercise intensity to make sure the body is getting the most out of every workout. These are:

- a. Target Heart Rate
- b. Talk Test
- c. Exertion Rating Scale

### a. Using the Target Heart Rate (THR)

A target heart rate is the range at which a person's heart should beat during exercise to achieve the maximum benefits of working out (Johns Hopkins University, 2024).

The human body has an in-built system to measure its exercise intensity – the heart. Your heart rate will increase in proportion to the intensity of your exercise. You can track and guide your exercise intensity by calculating your Target Heart Rate (THR) range.

The maximum rate is based on a person's age. An estimate of a person's maximum heart rate can be calculated as 220 beats per minute (bpm) minus the age.

## How to calculate Target Heart Rate (THR)

Example: For a 42-year-old person, Maximum Heart Rate (MHR) =  $220 - 42 = 178$  bpm

THR = MHR x %Intensity =  $178 \times$  the intensity as shown in the table below:

Target Zone	% Intensity	THR in bpm
Maximum Vo2 Max zone	90% - 100% -- $(90/100 \times 178) = 160$ $(100/100 \times 178) = 178$	160 – 178
Hard Anaerobic zone	80% - 90% -- $(80/100 \times 178) = 142$ $(90/100 \times 178) = 160$	142 – 160
Moderate Aerobic zone	70% - 80% -- $(70/100 \times 178) = 125$ $(80/100 \times 178) = 142$	125 – 142
Light Fat burn zone	60% - 70% -- $(60/100 \times 178) = 107$ $(70/100 \times 178) = 125$	107 – 125
Very light Warm-up zone	50% - 60% -- $(50/100 \times 178) = 89$ $(60/100 \times 178) = 107$	89 – 107

**Table 1.1: Target Heart Rate calculation**

### NOTE

THR = Target Heart Rate

MHR = Maximum Heart Rate

RHR = Resting Heart Rate

bpm = Beats Per Minute

## How to take your pulse/beats per minute (bpm)

There are two ways of checking a pulse:

- Radial pulse checking
- Carotid pulse checking
- The **radial pulse** is located on the inner wrist of the hand. To check the pulse using this method, the following procedures are applied:
  1. Put the first three fingers of one hand against the inner wrist of the other hand just below the thumb.
  2. Lightly press your fingers into the hollow next to the tendon on the thumb side. Note that the artery lies just beneath the skin.

3. Using a stopwatch, count the pulse (beats) for 15 seconds. Multiply this figure by four to get your beats per minute. (For example, 31 pulse beats over 15 seconds equals a pulse rate of 124 beats per minute).
- The **carotid pulse** is located on either side of the windpipe. To check the pulse using this method, press the fingers lightly against one of the carotid arteries, located on either side of your windpipe.

## b. Using the Talk Test

The talk test is a simple and reliable way to measure intensity. It is executed as while engaging in an exercise or soon after an exercise,

- If you can talk and sing without breathing rapidly, you're exercising at a low level.
- If you can comfortably talk, but not sing, you're doing moderate intensity activity.
- If you can't say more than a few words without gasping for breath, you're exercising at a vigorous intensity.

## c. Using the Exertion Rating Scale

This method is based on observing your body's physical signs during physical activity, including increased heart rate, increased respiration or breathing rate, increased sweating and muscle fatigue.

As you become fitter, the same activity will become easier, and your exertion rating will decrease.

The table below shows the physical signs as against the intensity:

**Table 3.2: Physical activity exertion rating scale**

Level	Exertion	Physical sign
1	Minimal/low	None
2	Moderate	Stronger sensation of movement
3	Hard/vigorous	Sweating
4	Very hard/extremely vigorous	Heavy sweating and can't talk

## Key facts about physical activity

1. Physical activity enhances thinking, learning and judgment skills
2. Physical activity has significant health benefits for the hearts body and mind
3. Physical activity contributes to preventing and managing non-communicable diseases such as cardiovascular diseases, cancer and diabetes
4. Physical activity reduces symptoms of depression and anxiety
5. Physical activity aids healthy growth and development in young people
6. Physical activity improves overall well-being

### Activity 3.1

- Consider doing this exercise below in a group of not more than five (5).
- Watch the video links below on physical activity, physical inactivity and sedentary behaviours.

[Short video on physical exercise](#)[Short video on physical exercise](#)

- Discuss the features of physical activity, physical inactivity and sedentary behaviors.
- Write down your ideas for a whole class discussion.

My ideas

### Activity 3.2

Design a one-week physical activity plan for your class using the table provided. Remember to include if the activity is low, moderate or vigorous intensity.

DAY	ACTIVITY	INTENSITY LEVEL
1		
2		
3		
4		
5		
6		
7		



### Activity 3.3

Follow your activity plan for one week. Log your activity using the table below.

DAY	ACTIVITY COMPLETED	THR	TALK TEST	EXERTION RATING	NOTES
1					
2					
3					
4					
5					
6					
7					

How did following the plan make you feel?

## IMPORTANCE OF PHYSICAL ACTIVITY FOR HEALTHY LIVING

### The importance of physical activities

Physical activity helps in the following bodily functions:

1. **Improved Brain/Mental Health:** Being active helps to keep our minds sharp and improves our mental well-being.
2. **Weight Management:** Regular physical activity helps us maintain a healthy weight.

3. **Bone and Muscle Strength:** Activities like exercise and sports make our bones and muscles stronger.
4. **Reduce Risk of Diseases:** Staying active lowers the chances of getting diseases like heart disease, stroke, and diabetes.

## The World Health Organisation (WHO) guidelines and recommendations for physical activity.

Recommended activity for various age groups:

### 1. Children 1-2 Years Old:

Children should spend at least 180 minutes throughout the day doing physical activities ranging from moderate to vigorous intensity. They should not be sitting still for more than an hour at a time.

### 2. Children 3-4 Years Old:

Children should spend at least 180 minutes doing various physical activities throughout the day, with at least 60 minutes being moderate to vigorous intensity. They should avoid sitting still for long periods.

### 3. Children and Adolescents Aged 5-17 Years:

Children and teens should aim for an average of 60 minutes each day of activities that make them breathe harder and their hearts beat faster. They should also do activities that strengthen muscles and bones, like running and jumping, at least three days a week.



**Fig. 3.4:** Adolescents engaged in physical activities

### 4. Adults Aged 18–64 Years:

Adults should aim for 150–300 minutes of moderate intensity physical activity throughout the week, or 75–150 minutes of vigorous intensity activity, or a mix of both.

### 5. Adults Aged 65 Years and Above:

Older adults should follow similar guidelines to adults aged 18-64, focusing on activities that improve balance and strength to prevent falls.

### 6. Pregnant and Postpartum Women:

Expectant and new mothers should aim for 150 minutes of moderate intensity aerobic activity each week, along with muscle-strengthening activities.

### 7. People Living with Chronic Conditions:

As their condition allows, those with conditions like high blood pressure or diabetes should aim for 150–300 minutes of moderate intensity physical activity each week, or 75–150 minutes of vigorous intensity activity.

### 8. Children and Adolescents Living with Disability:

Young people with disabilities should do an average of 60 minutes daily of activities that make their hearts beat faster, along with muscle and bone-strengthening exercises.



**Fig. 3.5:** Adolescents with disabilities engaged in physical activities

### 9. Adults Living with Disability:

- Adults with disabilities should aim for 150–300 minutes weekly of moderate intensity physical activity, adjusting the type and duration based on their abilities.
- Alternatively, they can train for 75–150 minutes of vigorous intensity aerobic physical activity or an equivalent combination of moderate and vigorous intensity activity within a week.



**Fig. 3.6:** Adults with disabilities engaged in physical activities

## Health risks of sedentary behaviour

Lives are becoming increasingly sedentary through the use of motorised transport and the increased use of screens for work, education and recreation. This gives rise to health risks such as:

1. increased adiposity/obesity (weight gain)
2. poor cardiometabolic (heart and metabolic) health
3. poor fitness
4. reduced sleep duration
5. cardiovascular disease
6. cancer
7. type 2 diabetes

### Activity 3.4

**Debate:** Complete this activity in groups

Topic: "Should Physical Activity Be Mandated for All Age Groups to Combat Sedentary Lifestyles and Improve Public Health in Ghana?"

**Pro Position:**

- Mandating physical activity for all age groups will significantly reduce the prevalence of non-communicable diseases such as type 2 diabetes, cancer, and cardiovascular diseases.
- Structured physical activity can enhance mental health, improve cognitive functions, and lead to better academic and work performance.
- Ensuring regular physical activity will contribute to better weight management, stronger bones and muscles, and overall improved physical fitness.
- Policies that enforce physical activity can create a culture of health and well-being, reducing healthcare costs in the long term.

**Con Position:**

- Mandating physical activity may infringe on personal freedoms and the right to choose one's lifestyle.
- Not everyone has equal access to safe and appropriate spaces for physical activity, making such mandates potentially discriminatory.
- Individuals with certain health conditions or disabilities may find mandatory physical activity challenging or detrimental.
- Instead of mandates, promoting awareness and providing incentives for voluntary physical activity might be a more effective and less intrusive approach.

### Activity 3.5

Create a table summarising the World Health Organisation (WHO) guidelines and recommendations for physical activity across various age groups and special populations. For each category, include the recommended duration and intensity of physical activity, and any special considerations or additional recommendations.

Age Group / Special Population	Recommended Duration	Intensity	Additional Recommendations

### Activity 3.6

Analyse the health risks associated with sedentary behavior. Create a table that lists these risks and provides an explanation of how physical activity can mitigate each risk.

Health Risk	Explanation	How Physical Activity Mitigates the Risk

### Activity 3.7

Create a table summarising the World Health Organisation (WHO) guidelines and recommendations for physical activity across various age groups and special populations. For each category, include the recommended duration and intensity of physical activity, and any special considerations or additional recommendations.

Age Group / Special Population	Recommended Duration	Intensity	Additional Recommendations
Children 1-2 years old	At least 180 minutes spread throughout the day	Moderate to vigorous	Should not be restrained for more than one hour at a time
Children 3-4 years old	At least 180 minutes spread throughout the day	Any intensity (at least 60 minutes moderate to vigorous)	Should not be restrained for more than one hour at a time
Children and adolescents aged 5-17 years	Average of 60 minutes per day across the week	Moderate to vigorous	Include vigorous intensity and muscle/ bone-strengthening activities at least 3 days a week
Adults aged 18-64 years	150-300 minutes per week	Moderate intensity or 75-150 minutes vigorous	Combination of moderate and vigorous intensity throughout the week
Adults aged 65 years and above	150-300 minutes per week	Moderate intensity or 75-150 minutes vigorous	Emphasize functional balance and strength training to prevent falls
Pregnant and postpartum women	At least 150 minutes per week	Moderate intensity	Incorporate aerobic and muscle-strengthening activities; limit sedentary time
People living with chronic conditions	150-300 minutes per week	Moderate intensity or 75-150 minutes vigorous	Depends on individual's condition and ability
Children and adolescents with disabilities	Average of 60 minutes per day	Moderate to vigorous	Number of repetitions and duration depend on the individual's ability
Adults with disabilities	150-300 minutes per week	Moderate intensity or 75-150 minutes vigorous	Number of repetitions and duration depend on the individual's ability

### Activity 3.8

Analyse the health risks associated with sedentary behavior. Create a table that lists these risks and provides an explanation of how physical activity can mitigate each risk.

Health Risk	Explanation	How Physical Activity Mitigates the Risk
Increased adiposity/obesity	Sedentary behavior leads to weight gain due to lack of calorie expenditure.	Physical activity burns calories, helping to maintain a healthy weight and reduce adiposity.
Poor cardio metabolic health	Lack of movement can lead to poor cardiovascular and metabolic health.	Regular exercise improves cardiovascular function and metabolic health.
Poor fitness	Inactivity reduces overall physical fitness, including strength, endurance, and flexibility.	Physical activity enhances strength, endurance, and flexibility, improving overall fitness.
Reduced sleep duration	Sedentary lifestyle can disrupt sleep patterns and reduce sleep quality	Regular physical activity promotes better sleep patterns and quality.
Cardiovascular disease	Inactivity is a risk factor for heart disease and related conditions.	Exercise strengthens the heart and improves circulation, reducing the risk of heart disease.
Cancer	Sedentary behavior is associated with an increased risk of certain cancers.	Regular physical activity reduces the risk of some cancers by maintaining healthy body weight and improving immune function.
Type 2 diabetes	Inactivity increases the risk of developing insulin resistance and type 2 diabetes.	Exercise improves insulin sensitivity and helps regulate blood sugar levels.

## APPLICATION OF THE CONCEPT OF PHYSICAL ACTIVITY IN EVERYDAY LIFE

### Planning physical Activity

1. Set Specific Short-Term Goals:
  - Set goals that are easy to track, such as exercising for 20 minutes a day, three times a week.



2. **Schedule Your Activities:**
  - Decide which days and times you will do your activities.
3. **Choose Enjoyable Activities:**
  - Pick activities you like, such as gardening, dancing, cycling, or tennis.
4. **Stick to Your Routine:**
  - Keep a regular schedule for your physical activities.
5. **Start Slowly and Increase Gradually:**
  - Begin with simple exercises and gradually increase the intensity fitness improves.

## How to overcome barriers to physical activity

1. **Lack of Time:**
  - Do short bursts of activity, like 10 minutes of your favorite exercise.
  - Incorporate physical activity into your daily routine, such as walking during lunch breaks or after dinner.
2. **Lack of interest**
  - Try new activities to keep things interesting.
  - Make it social by involving friends and family.
  - Get support from experts or trainers to keep you motivated.
3. **Bad weather conditions**
  - Wear appropriate exercise gear/kit.
  - Find indoor activities like aerobics, skipping, or indoor sports like badminton and tennis.
4. **Cost of kit and equipment**
  - Choose activities that do not require expensive equipment or specialised skills.
  - Engage in local activities such as gardening or doing household chores.

## Designing a physical activity plan

The following is a sample weekly physical activity plan with interesting activities that can be adapted by an individual, a class, family, community or a club.

**Table 3.3: Physical activity plan**

OUTSIDE SCHOOL			
Week	Tuesday	Thursday	Saturday
1	Skipping	Adapted squash tennis	Aerobic
2	Aerobic	Skipping	Circuit training
3	Gardening	Adapted squash tennis	Aerobic
4	Circuit training	Gardening	Skipping

IN SCHOOL		
Week	Day 1	Day 2
1	Football	Flexibility training
2	Circuit training	Agility training
3	Aerobics	Handball
4	Speed training	Strength training

Note: Your teacher will take you through practical lessons on the above activities for acclimatisation and adaptation.

## How to promote participation in physical activity

### 1. Schools

- **Provide Fun and Engaging Lessons:** Schools should offer interesting and enjoyable physical education and health lessons that encourage all students to participate. This helps students develop habits that keep them active throughout their lives.
- **Form Physical Activity Clubs:** Schools should form clubs focused on physical activities and create plans for regular activities.
- **Raise Awareness:** Clubs should educate families and communities about the importance and benefits of regular physical activity and organise events to promote these activities.

### 2. Families

- **Educate on Benefits:** Families should learn about the importance and benefits of regular physical activity.
- **Choose Enjoyable Activities:** Families should find activities they enjoy and create a plan to include them in their routine.

- **Participate Together:** Families should engage in physical activities together.
- **Organise Challenges:** Families can organise fun physical activity challenges within their family and with other families.

### 3. Communities

- **Raise Awareness:** Communities can run campaigns to educate people about the benefits of regular physical activity engagement.
- **Form Keep-Fit Clubs:** Communities can form clubs to encourage and maintain interest in physical activities.
- **Organise Challenges:** Communities can host regular physical activity challenges between different clubs to keep everyone motivated and engaged.

#### Activity 3.9

1. Reflect and write down at least five ways you can be physically engaged.

1.	
2.	
3.	
4.	
5.	

2. Select one of the activities listed above and practice it over time (rehearsal).

Activity chosen =

3. Perform the rehearsed activity to a colleague for feedback.

**Note:** (*perform activity at your optimal level of intensity and repetition*).

Feedback:

Use the space below to note any feedback on your performance.

4. Make a list of selected activities demonstrated in class to create a plan that can motivate a colleague to regularly engage in performing physical activities.

- 
- 
- 
- 
- 
- 
- 
- 
- 
- 

### Activity 3.10

#### **Project Activity:**

- Research on the internet or other sources for different types of physical activities, their benefits, and how they can be incorporated into daily life.
- Set personal fitness goals based on your interest and fitness level.

#### **Goals should be specific, measurable, achievable, relevant, and time-bound (SMART).**

- Create a weekly physical activity plan, including a variety of activities such as aerobic exercises, strength training, flexibility exercises, and recreational activities. Ensure the plan is balanced and includes activities of different intensity levels throughout the week.
- Fill out the template provided below to suit your weekly physical activity plan:

#### **My Weekly Physical Activity Plan**

Day	Activity type	Activity description	Duration	Intensity level	Goal
Monday	aerobic	jogging	30 minutes	moderate	Improve cardiovascular fitness
Tuesday	strength				
Wednesday	Flexibility				
Thursday	recreational				
Friday	aerobic				
Saturday	strength				
Sunday	flexibility				

- Present your plan to the class, explaining your choice of activities and how they aim to achieve the corresponding fitness goals. Your classmates will provide constructive feedback and suggestions for improvement.
- Follow by practicing your improved plan for a week.
- At the end of the week, reflect on your experiences, noting what worked well and what challenges you faced. Great work!

What worked well:	What challenges did I face:
-------------------	-----------------------------

- Now, write a short reflection on how you felt during the week and any adjustments you plan to make for the future base on your weekly plan.

Reflection:

What adjustments will I make:

# Review Questions

## REVIEW QUESTIONS 3.1

1. Differentiate between physical activity, physical inactivity, and sedentary behaviours? Include an example of each type of activity.

Physical Activity	Physical Inactivity	Sedentary Behaviours

2. How does physical fitness relate to overall health and well-being?

3. Why is it important for you to engage in regular physical activity?

4. Why is it essential to incorporate different intensity levels of physical activities into a fitness routine?

5. How can the information from the physical activity pyramid be applied to create a balanced exercise plan?

## REVIEW QUESTIONS 3.2

### Case study:

1. Ali is a 15-year-old junior high school student in Nyivil, Ghana. He enjoys playing video games and spending time on social media after school. Ali has noticed that he has been gaining weight, feeling more stressed about schoolwork, and often feels tired during the day. His parents and teachers are concerned about his health and have encouraged him to incorporate more physical activity into his daily routine. Ali is unsure how physical activity could benefit him and what types of activities he should engage in as a teenager.
  - a. Based on the importance of physical activities discussed in the content, analyze Ali's situation and answer the following questions:
    - i. Explain how regular physical activity could improve Ali's mental health and help him manage stress related to schoolwork.

2. Describe how physical activity can help Ali manage his weight and improve his overall physical health.

3. Discuss the importance of physical activity for Ali's bone and muscle strength during his teenage years.

4. Identify at least two diseases that regular physical activity can help prevent in Ali's case, and explain how staying active reduces the risk of these diseases.

5. Suggest three types of physical activities that Ali could incorporate into his daily routine and explain why these activities are suitable for a teenager in Ghana.

## REVIEW QUESTIONS 3.3

### Scenario

Yaw, Ama, Al-Buruj, and Akosua are high school students who face different challenges in maintaining their physical activity routines. Yaw has a busy schedule with school, homework, and chores but enjoys cycling and playing football. Ama is bored with her current exercise routine and finds it does not motivate her. Al-Buruj loves outdoor sports like basketball and football but struggles to stay active during the rainy season. Akosua wants to start a new physical activity but is concerned about the cost of equipment and gear.

Questions:

1. Based on Yaw's situation, what specific short-term goals could he set to ensure he stays active?



2. Suggest a weekly activity plan for Yaw that includes both cycling and football by completing the table below.

Day	Activity	Duration
Tuesday		
Thursday		
Saturday		

3. What strategies can Ama use to overcome her lack of interest in physical activity?

4. What indoor activities can Al-Buruj engage in during the rainy season to stay active?

5. How can local activities like gardening or household chores help Akosua stay fit?

**Case study:**

**Case 1:**

A local community wants to encourage its members to engage in regular physical activities. They are planning a campaign to promote physical activity.

**Task:**

Propose three activities that the community can organise to raise awareness about the importance of physical activity.

**Case 2:**

A Senior High School wants to promote physical activity among its students. The school plans to form a physical activity club and needs to create a comprehensive plan.

**Task:**

Propose a series of events that the physical activity club can organise to engage students and the wider community.

# Answers to Review Questions

## ANSWERS TO REVIEW QUESTIONS 3.1

1.

Physical Activity	Physical Inactivity	Sedentary Behaviour
Involves any movement that requires energy expenditure, such as walking, cycling, or playing sports.	Refers to insufficient physical activity to meet current physical activity guidelines, leading to potential health risks.	Activities that involve little to no movement and low energy expenditure, typically while sitting or lying down, such as watching TV or sitting at a desk for extended periods.

- Physical fitness is a measurable state of an individual's health and well-being, encompassing strength, endurance, and flexibility. It directly influences overall health by improving cardiovascular function, muscle and bone strength, and flexibility. Enhanced physical fitness contributes to better mental health, reduced risk of chronic diseases, and improved quality of life.
- Engaging in regular physical activity improves physical health, mental well-being, and emotional balance. It reduces the risk of chronic diseases, enhances immune function, improves mood and cognitive function, and promotes better sleep. Regular activity also helps maintain a healthy weight and enhances overall quality of life.
- Incorporating different intensity levels ensures a comprehensive fitness routine that improves various aspects of physical health, such as cardiovascular endurance, muscular strength, and flexibility. It also helps prevent overuse injuries, maintains interest and motivation, and allows for adequate recovery.
- The physical activity pyramid illustrates the need for a mix of activities of varying intensity levels:
  - Base (Vigorous Intensity): Activities like running or high-intensity interval training.
  - Middle (Moderate Intensity): Activities like brisk walking or cycling.
  - (Low Intensity): Activities like stretching or light yoga.A balanced exercise plan should include activities from all levels, ensuring a mix of vigorous, moderate, and low-intensity exercises to promote overall health and prevent burnout.

## ANSWERS TO REVIEW QUESTIONS 3.2

### 1. Mental Health:

- Regular physical activity can help reduce symptoms of anxiety and depression by releasing endorphins, which are natural mood lifters.
- Physical activity can also improve Ali's concentration and sleep, leading to better stress management and overall mental well-being.

### 2. Weight Management:

- Engaging in regular physical activity helps burn calories and prevents excess weight gain.
- Physical activity boosts metabolism and helps maintain a healthy weight by building muscle mass, which requires more energy than fat tissue.

### 3. Bone and Muscle Strength:

- During teenage years, physical activity is crucial for developing strong bones and muscles, reducing the risk of osteoporosis later in life.
- Weight-bearing exercises, such as running, jumping, and resistance training, promote bone density and muscle strength, essential for overall growth and physical development.

### 4. Disease Prevention:

- Heart Disease: Physical activity strengthens the heart and improves blood circulation, reducing the risk of cardiovascular diseases.
- Type 2 Diabetes: Regular exercise helps regulate blood sugar levels and improves insulin sensitivity, decreasing the risk of developing type 2 diabetes.

### 5. Activity Recommendations:

- Football (Soccer): Playing football is popular in Ghana and offers a fun way for Ali to stay active while improving his cardiovascular health and social skills.
- Running/Jogging: Running is an accessible form of exercise that can be done anywhere and helps in building endurance and cardiovascular strength.
- Dancing: Engaging in dance activities, such as traditional Ghanaian dances, can be enjoyable and provide a full-body workout, enhancing flexibility, coordination, and overall fitness.

## Answers to Review Questions 3.3

1. Goals like cycling for 20 minutes three times a week and playing football for 30 minutes twice a week.

### 2. Weekly Plan:

- Tuesday: 15-minute cycle
- Thursday: 30-minute football
- Saturday: 1-hour cycle

3. Strategies: Try new activities, make it social, and get support from experts.
4. Indoor Activities: Aerobics, skipping, indoor sports like badminton and tennis.
5. Local activities like gardening and household chores can keep her stay active without cost.

#### Case Study 1:

Organise walks, sports days, and fitness classes, sport clinic etc.

#### Case Study 2:

Organise sports tournaments, health fairs, and family fitness days.

## EXTENDED READING

1. Examples of physical activities in and out of our schools can be viewed here
  - <https://www.youtube.com/watch?v=xEVNZayCVrY>
2. This link <https://www.youtube.com/watch?v=QuvXeDgklyk> shows physical inactivity and chronic diseases.
  - [https://www.youtube.com/watch?v=GrkBBz\\_E4xU](https://www.youtube.com/watch?v=GrkBBz_E4xU) further shows how physical inactivity leads to body wide inflammation
3. Ways of being physically active as a teenager can be viewed using this video link
  - <https://www.bing.com/videos/riverview/relatedvideo?&q=ways+of+being+physically+active+as+a+teenager&&mid=B771A16B8303B5039E2BB771A18303B5039E2B&&FORM=VRDGAR>
4. Measuring exercise intensity tips can be viewed using the following link
  - <https://www.bing.com/videos/riverview/relatedvideo?q=how+to+Measuring+exercise+intensity&&view=riverview&mmscn=mtsc&mid=DD88671906F8CD-CB9330DD88671906F8CDCB9330&&aps=0&FORM=VMSOVR>
5. Why engaging in Physical Activity is Important? Watch the link below
  - <https://www.youtube.com/watch?v=ixiysQDZJB0>
  - <https://www.youtube.com/watch?v=qJCXmC7EnTQ>
6. This link <https://www.youtube.com/watch?v=wMziUVokjcw> is the World Health Organization Guidelines and Recommendations for Physical Activity
7. Health Risks of Sedentary Behavior is in this link <https://www.youtube.com/watch?v=-04j2hy-EVE>
8. How to plan physical activity can be viewed using the link below
  - <https://www.youtube.com/watch?v=08ryXxjaF1o>
9. How to overcome barriers to physical activity
  - This video <https://www.youtube.com/watch?v=G8svzYKU40E> offers strategies to overcome common barriers to physical activity.
10. How to promote participation in physical activity can be viewed using the link below
  - <https://www.youtube.com/watch?v=xDmxMz688Asv>

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