



## **Unit V – Wellness, Fitness and First Aid**

### **Chapter 1 - Choosing the Right Exercise Program For You**

#### **Section 2 – The FIT Principle and Phases of Exercise**



# What You Will Learn to Do

Develop a personal exercise program



# Objectives

1. Classify exercises as aerobic, anaerobic, isometric and isotonic
2. Compare the benefits of aerobic, anaerobic, isometric and isotonic exercise
3. Identify the benefits of regular exercise
4. Determine the essential components of a good exercise program



# Key Terms

## **Obesity -**

Overweight to the point of injuring health

## **Calisthenics -**

Light gymnastic exercise designed to promote good health by developing strength and grace



# Defining Your Goals

You should first examine your **goals** prior to creating your own exercise program. Goals may include:

- Increased stamina
- Trimmer body
- Better coordination
- Feeling more alert
- Stronger muscles
- Improved cardiovascular endurance
- Combinations of the above



# Defining Your Goals

Keep in mind as you plan your program...

- Your exercise and fitness program should be fun.
- Choose activities that you will look forward to
- Combine exercise with social activities
- Expand on activities already a part of your life. Check out the example on the next slide....





# Weekly Exercise Program

## Sunday

- 20-minute slow run
- 2 flights of stairs 3 times

## Monday

- 20-minute brisk walk
- Gym class
- 20-minute walk home

## Tuesday

- Walk to school
- 30-minute swim
- Walk home

## Wednesday

- Walk to school
- Gym class
- 40-minutes/basketball

## Thursday

- 20-minute walk to school
- Basketball game

## Friday

- Gym class
- 30-minute aerobics class
- 20-minute walk home

## Saturday

- 40-minutes/rake leaves
- 20-minute slow run



# Youth Fitness Fact Sheet

- Youth fitness has not improved in the last 10 years.
- 50% of girls (6-17) and 30% of boys (6-12) cannot run a mile in under 10 minutes.
- 55% of girls (6-17) and 25% of boys (6-12) cannot do a pull-up.
- Boys generally perform better than girls except in flexibility.
- Girls' scores increase until 14 then plateau and decrease (except flexibility).



# Youth Fitness Fact Sheet

- American children have become fatter since 1950.
- 40% of children ages 5-8 show one heart disease risk factor:
  - obesity (overweight)
  - elevated cholesterol
  - high blood pressure
- Only 36% of schoolchildren (grades 5-12) are enrolled in physical education with an average of 3.6 gym classes per week.

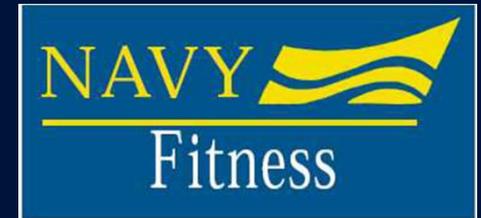


# The FIT Principle

Exercise effectiveness depends on:

- F** How often (frequency)
- I** How hard (intensity)
- T** How long (time)

...you exercise.



To achieve fitness, you need to meet the minimum standards for each **FIT** factor.



# Frequency of Exercise

To stay physically fit, exercise three or more times per week.

If your exercise is **moderate**, four times a week is effective for cardiovascular endurance and weight loss.

If your exercise is **vigorous**, do not exercise more than five times a week.



# Frequency of Exercise

Whatever your goal, spread your exercise out throughout the week.



**Inactivity** during the week does not prepare you for intense weekend workouts, and “weekend warriors” are more prone to injuries.



# Intensity of Exercise

If your goal is cardiovascular endurance, you must work your systems intensely through aerobic exercise.



The intensity is indicated by the number of heart beats per minute. The more intense the exercise, the faster the heart rate.



# Intensity of Exercise

## Maximum heart rate:

- The heart's top speed/rate when exercised to exhaustion
- For teenagers, it is about 200 bpm.

## Target heart rate:

- The approximate heart rate during exercise that is needed to benefit from aerobic workout
- Depends on age, fitness level, resting heart rate, and maximum heart rate
- Expressed as a range for example 145-170 beats per minute (BPM)



# Intensity of Exercise

During exercise, check your heart rate regularly to stay within your target range. Here's how...

- Stop exercising
- Count your pulse at neck or wrist for 6 seconds
- Multiply by 10





# Intensity of Exercise

The **talk test** is an easy way to check exercise intensity.

If you are breathless and cannot talk, the exercise level is too **intense**.

If you are able to sing while exercising, the exercise level is too **moderate**.

If you are able to talk comfortably while exercising, intensity is at the proper level.





# Exercise Time

Time spent exercising affects your fitness level.

Start with about 10-15 minutes.

Increase gradually by up to **10%** each week.



Once established, maintain **20-30 minutes** of vigorous exercise for greater fitness.



# Exercise Time

If your goal is **cardiovascular improvement**:

- Exercise vigorously for 20-30 minutes within your target heart rate.
- Vigorous levels of exercise use the body's glucose as energy.

If your goal is to **reduce body fat**:

- Exercise moderately for 30 minutes minimum at about 50% of your maximum heart rate.
- Moderate levels of exercise use body fat as energy.



# Phases of Exercise

A **warm up** should precede a workout followed by a **cool down**. Skipping them doesn't always cause injury, but including them is safer and healthier.





# Warming Up and Stretching

Warm up with a 5–10 minute period of **mild exercise** before vigorous exercise.

Warming up allows for:

- Body temperature to rise
- Heart rate to rise
- Blood flow to muscles to increase
- Muscles to become more elastic





# Warming Up and Stretching

Some suggest going through the same motions as the planned exercise when warming up.

If you do so, be sure the motions are done at a **slower pace**.

For example, if the exercise is running, start out by walking and gradually increase the speed until you are running at the intended pace.





# Warming Up and Stretching

Warm up should include 5-10 minutes of stretching to increase flexibility.

**Know your limits!** Don't overstretch your ligaments and joints.

Stretching should be a constant even pull on both sides of the body to feel tension, working muscle opposing pairs.



**Be sure not to bounce.**



# The Workout

The goal of the **workout phase** is to improve one or more components of physical fitness.

You may decide to improve **both** your cardiovascular endurance and your strength endurance, for example.

You can work both on alternate sessions – or if you select both for the same session, do the cardiovascular exercises first.



# The Workout

If you select muscle strengthening exercises, do them on alternate days. Muscles need a full day of recovery after a workout.

During the exercise, plan on **short sets** followed by rest periods for the muscles to recover between sets.





# Cooling Down and Stretching

A **slow warm-up period** brings you safely from minimal to maximal activity.

The **cool-down** is a period of milder exercise that allows your body and your heart rate to return slowly and safely to their resting states. Your cool-down should be at least as long as your warm-up.



# Cooling Down and Stretching

If you stop exercising abruptly, blood can collect in the muscles you were using.

When this happens, blood may not return fast enough to your heart and brain. As a result, you may **become dizzy** and faint. Walking is a common method of cooling down.

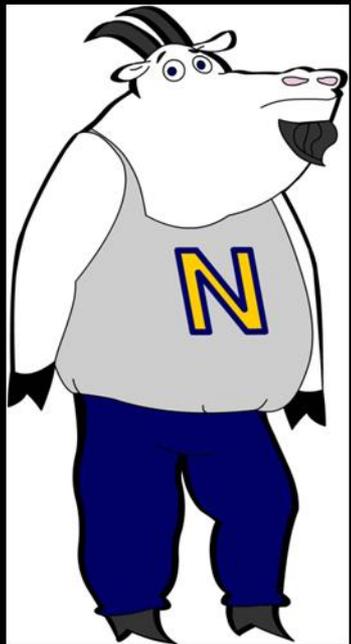
**Stretching after your cool-down** loosens muscles that have tightened from exercise and prevents muscle and joint **soreness**. Spend at least five minutes repeating the stretches you did before your workout.



# Checking Your Progress

Seeing your progress can be rewarding. For most exercise programs, wait **three to four** weeks to re-test, but you're likely to notice changes within **12 weeks**.

Week 1



Week 4



Week 8



Week 12





# Your Resting Heart Rate

A person with average cardiovascular fitness has a resting heart rate of **72-84 bpm**.

Girls/women generally have higher rates than boys/men.



**Below 72** in either gender indicates a good fitness level.

Top conditioned young athletes may be as low as 40 bpm.



# Check On Learning Questions



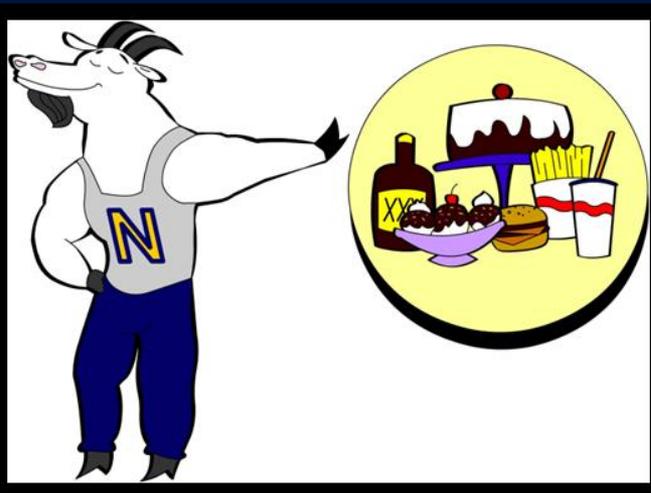
CPS Lesson  
Questions 5 - 6



# Your Changing Shape

If one of your goals is to lose body fat, combine exercise with changes in eating habits.

You may be surprised if you actually gain some weight – this is because **muscle is heavier** than fat. But you may look more trim.





# Your Changing Shape



Keep track of your progress by recording results on a chart to compare data, including the circumference of your upper arm and other tracking data.

## Tracking Chart Example

### Arm Measurement Technique



Week	Weight	Upper Arm Measure	Resting Heart	Appetite	Sleep Pattern
0					
3					
6					
9					



# A Safe Workout

Anyone who exercises faces the risk of injury.

Some may be unavoidable, but most can be prevented by common sense.





# Equipping for Safety



You do not need expensive equipment to be safe. You may only need sneakers.

Choose the right equipment for your exercise, including clothing, footwear and protective gear.



# Equipping for Safety

Clothes should be comfortable, unrestrictive and allow the body to cool.



Avoid clothing that can trip you or get caught in your equipment. Wear long sleeves and pants where scrapes can occur.



# Equipping for Safety

To protect your feet, footwear should:

- Fit properly
- Be in good condition
- Provide support and protection



You probably don't need to buy highly specialized, expensive athletic footwear.

If your main activities are walking and bicycling, you do not need professional running shoes.



# Equipping for Safety

**Protective gear** is designed to prevent injuries in contact sports. Many sports use hard-shell helmets to protect the head from blows.

You should regard a **helmet** as standard equipment for any wheeled sport also.

**Knee and elbow pads** are important equipment for skateboarders and skaters.





# Fluids and Food

Your body can require water even when you aren't thirsty.

If you exercise more than **45 minutes**, take in fluids as you exercise, especially in hot weather.

Have a cup of fluid a few minutes before exercising and every 15 minutes during exercise.



# Avoiding Overexertion

Signals you have overworked your body:



- Unusually tired during/after exercise
- Nausea or vomiting
- Muscle or joint pains that stay

If you experience any of these symptoms:

- Cut back on intensity and length
- Stick to a consistent exercise schedule
- Keep your exercise within your level



# Questions?

