

Grade 11 PE Active Living
Benefits of Physical Activity for Physical Health

Name: _____

Date: _____

Introduction

Have you ever wondered why people do unhealthy things like smoking? Why not do something that we all know will improve your health and wellbeing? Most people know that it is healthier to eat vegetables than fried food and that walking to school is better than getting a ride, yet many choose the ride and the fried food. What are the factors that affect decisions about being active and healthy, and what influences the adherence to a fitness plan? Investigating the contribution of exercise as it relates to optimal health and disease prevention, and your own reasons for making the choices you make are all part of this lesson.

The Benefits of Regular Physical Activity

Can you name five benefits of regular physical activity? If you can, that's great! But there are many more than five, especially if you are active at least four days per week. By being active you can reduce the risk of developing some of the leading causes of death in Canada. This includes heart disease, diabetes, high blood pressure, and different types of cancer, like colon cancer.

And there's more! Regular physical activity helps build and maintain healthy bones, muscles, and joints. It helps people control their weight, their blood pressure and blood sugar (which is related to diabetes.) It helps maintain a healthy weight. In fact, it is always recommended that people include regular physical activity in any balanced-eating program. It also helps older adults become stronger and less likely to fall.

Besides helping to prevent disease, regular physical activity has many other benefits. Did you know that regular physical activity helps you feel better? Think about it. How do you feel after being physically active? You probably feel pretty good. That's because regular physical activity helps to reduce feelings of depression and anxiety and promotes psychological well-being.

Finally, regular physical activity reduces the risk of dying before your time.

All in all, regular physical activity is one of the best ways that you can stay healthy, both physically and emotionally.

The Contribution of Exercise/Physical activity to Optimal Health

When looking at the contributions of exercise as it relates to optimal health we can break it down into the following three main areas:

1. Longevity (the length of time between birth and death)

Active individuals experience a longer life and an improved quality of life which reduces the risk of dying prematurely. Exercise strengthens the heart, vascular system, and respiratory system to help fight cardiovascular disease which reduces the risk of cardiovascular disease. Exercise reduces:

- Anxiety and assists in stress management which promotes an improved outlook on life and provides a positive outlet for stress

- The daily wear and tear on the heart and the cardiovascular system which decreases resting heart rate
- The stress on the walls of veins and arteries and therefore reduces the risk of a coronary event or stroke and exercise helps keep resting blood pressure normal
- The risk of cardiovascular disease and the occurrence of atherosclerosis (hardening of the arteries) by increasing high-density lipoprotein (HDL) cholesterol and decreasing low-density lipoprotein (LDL) cholesterol

2. Performance (the ability of the muscle to exert force in order to create a desired movement)

Exercise increases the:

- Strength of connective tissue, making the individual less susceptible to injury and promotes joint stability
- Ability to perform at higher intensities with greater ease which shows greater efficiency of the heart
- Ability to exert greater forces for longer periods of time which reduces the onset of fatigue and increases the ability of the body to recover

Exercise improves:

- The body's core strength and develops strong abdominal and back muscles, promoting better posture
- Back strength which reduces the incidence and severity of low back pain
- Balance, coordination, agility, and muscular strength which make for greater ease, control, and safety in all movements in daily life

Exercise strengthens:

- Bones and helps reduce the risk of osteoporosis and the danger of injury and bone fractures

3. Energy Expenditure and Healthy Weight (the amount of energy, measured in calories, that a person uses)

Exercise:

- Lowers body fat and increases cellular sensitivity to insulin, which helps regular blood-sugar levels and lowers the risk of developing diabetes
- Promotes an increase in muscle mass and decreases body fat therefore creating a more toned appearance (the toned body burns more calories during exercise because of the increased ratio of muscle to fat)
- Increases metabolism rate, which helps the body burn more calories both during activity and when at rest which assists with weight management
- Requires an increase in the use of calories to produce energy thereby making it easier to maintain an energy balance between calories in and calories out (3500 calories = 454 grams of fat)

The Contribution of Exercise/Physical Activity to Prevention of Disease

Physical activity is important in maintaining a neutral energy balance, which lowers the risk of disease. Physical activity may also have positive effects on hormone levels that will reduce disease. In addition, physical activity stimulates the bowel and decreases digestion time, which in turn lowers the risk of colon cancer. Listed below are some common diseases and conditions affected by poor lifestyle choices like not exercising, unhealthy eating habits, stress, and smoking.

Cardiovascular disease

- Cardiovascular disease accounts for nearly half of all deaths in the country.
- Types of Cardiovascular diseases and conditions are heart attack, atherosclerosis, angina pectoris, arrhythmias, congenital heart defects, congestive heart failure, hypertension, and stroke.

Cancer

- Cancer is a complex group of diseases characterized by the uncontrolled growth and spread of abnormal cells.
- Common types of cancer are: lung, breast, prostate, colon and rectal, leukemia, and skin.

Type II diabetes

- Diabetes is a metabolic disorder resulting in the inability to properly break down carbohydrates and control blood sugar levels because the normal insulin mechanism is ineffective.
- Increase physical activity maintains or reduces weight, and it also can improve the body's response to insulin.

Osteoporosis

- Osteoporosis is a skeletal disease characterized by low bone mass and a deterioration of bone tissue, which results in fragile bones that are susceptible to fractures. It is a disease in which the loss of bone mineral density accelerates beyond the loss expected with normal aging.
- Weight-bearing physical activities (ie. walking, jogging, dancing) help to prevent osteoporosis by increasing bone mass.

Following an Exercise Plan

Some reasons why a person may **not** adhere to an exercise plan are:

- Enjoyment – a person may not have found an enjoyable activity
- Previous experiences – a person may have had a bad experience in the past. For example, may have broken a leg while downhill skiing.
- Values and attitude – a person may not have been brought up valuing the importance of exercise and therefore may have a negative attitude toward sport and physical activity.

Some reasons why a person **may** adhere to an exercise plan are:

- Social benefits – a person may really enjoy being with others as part of a team or as a workout partner. This may be the only time they are able to spend time with someone they would not see otherwise.
- Financial commitment – a person may have paid for an expensive membership to a fitness club.
- Medical reasons – a person may have been instructed by a doctor to get more exercise; therefore may be more likely to stick to a fitness plan.
- Incentives – a person may decide to stick with a sport or fitness plan if rewarded for it. For example, going to a favourite place for dinner with a workout partner after five straight workouts.

ASSIGNMENT: Benefits of Physical Activity

Name: _____

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Select one of the diseases that are common among individuals who do **not** lead a healthy active lifestyle: cardiovascular disease (such as: heart attack, atherosclerosis, angina pectoris, arrhythmias, congenital heart defects, congestive heart failure, hypertension, and stroke.), cancer, type II diabetes, osteoporosis, or _____. You may wish to speak to your family to find out if any of these diseases are persistent in your family tree.

Part One: Research the disease

Research the disease that you have chosen. Use the following questions to guide your research.

1. What is the disease? What affect does it have on the body?
2. What causes the disease?
3. Can the disease be prevented? If so, how?

Part Two: Counteract

Using the list of reasons why someone **may not** adhere to an exercise plan, come up with six examples of how you could get someone who is at risk of _____ (the disease you chose) to be physically active.

Present your research (both part one and part two) in a method of your choosing, such as: video, essay, pamphlet, podcast, PowerPoint, etc.