Lesson Plan: "Take Care of Your Fitness - Beat Shortness of Breath"

This lesson plan is intended for fifth-grade students.

Teacher's Outline:

I. Introduction • The impact of physical activity on health. • The principle "Any physical activity is better than none!" II. Physical Activity and its Types • Definition of physical activity (body movement requiring energy). • Examples of different types of physical activity (cycling, running, walking, Nordic walking, gardening). • Tip: Diversify physical activity for greater motivation and enjoyment. III. Aspects of Planning Physical Activity

1. Type of Physical Activity • Choosing different forms of activity depending on preferences, season, and location. • Example: Swimming pool, park, gym.
2. Intensity of Physical Activity • The influence of age, health status, and physical fitness on intensity. • Tip: Moderate and intense activity has health benefits.
3. Duration of Physical Activity • Short, medium, and long activity durations depending on type and health status. • Importance of adjusting duration to individual capabilities.
4. Regularity of Physical Activity • Recommendation of exercising 3-4 times a week for 30-60 minutes. • The impact of consistency on achieving desired effects. IV. Choosing Physical Activity • Endurance effort (walking, jogging, cycling, swimming, dancing, Nordic walking). • Health benefits of different forms of activity. V. Motivation for Physical Activity • Choose activities that bring enjoyment. • Set specific goals and plan workouts. • Seek support from a group or exercise partner. • Reward yourself for achieving goals and progress. VI. The Impact of Physical Activity on the Immune System • Physical activity strengthens immunity and reduces susceptibility to diseases. • Lack of activity or excessive exertion can weaken immunity. • Recommendation of moderate physical activity for optimal health and immunity. VII. Conclusion • The impact of physical activity on health and fitness. • Motivation for regular physical activity. • The value of moderate activity for immunity and overall health.

I. Introduction

Even the fathers of medicine, Hippocrates and Galen, pointed out that lack of physical activity is harmful to health. However, excessive exertion is unwise. Similarly, Paracelsus suggested that physical exertion, depending on the "dose," can be both a medicine and a poison.

You probably already know that many factors influence our health. Among them, lifestyle has the greatest impact, accounting for over 50% of health status. One of the main and most important health factors alongside diet is physical activity. Running, swimming, or cycling are just some of the possible types of physical activity. It affects a good figure, good condition, but above all, it protects against many diseases. Movement is an important part of our lives. At any age, we should move according to our capabilities.

According to the World Health Organization (WHO), physical activity is any bodily movement requiring energy expenditure and performed by muscles. This can include various forms of activity such as strength training, running, swimming, yoga, dancing, as well as daily activities like housework or walking.

The fitness of the young generation is declining at an alarming rate. As research from the University of Physical Education (AWF) shows, 94% of children have insufficient physical fitness, which translates into their physical and mental health. According to a report by the Children's Ombudsman, over 17% of students require immediate assistance to improve their physical fitness.

It's time for a change! It's high time to do something about it. To start, remember the following principle: Any physical activity is better than none!!!

Why shouldn't the term "physical activity" be confused with "exercise"?

Physical activity is often mistakenly associated solely with sports. Exercise, on the other hand, is a type of physical activity that is planned, defined, regular, and aimed at improving or maintaining physical fitness. Physical activity is a much broader concept. It is any movement that expends energy.

Health Benefits of Physical Activity: • Improved cardiovascular endurance. • Increased bone density and prevention of osteoporosis. • Lowering cholesterol levels. • Improved weight control and maintenance of a healthy body composition. • Increased muscle flexibility and strength. • Improved respiratory function. • Reduction in the risk of depression and improvement in well-being.

Plan your physical activity today!

When planning physical activity, it is important to consider four aspects: the type of physical activity, intensity, duration, and regularity.

• The type of physical activity includes various forms such as cycling, running, walking, Nordic walking, or gardening. It is important to diversify activities to maintain motivation and enjoyment. • The intensity of physical activity can be low, moderate, or high, adjusted according to age, health status, and individual characteristics. Both moderate and intense physical activity have health benefits. • The duration of physical activity can be short (up to 15 minutes), moderate (up to 30 minutes), or long (over 30 minutes), depending on the type of activity and current health status. • Regularity is key. It is recommended to exercise 3-4 times a week for 30-60 minutes, depending on the type of activity and intensity. Regularity helps achieve desired effects. • When choosing physical activity, it is worth focusing on forms of endurance effort such as walking, jogging, cycling, swimming, dancing, Nordic walking, or team sports. These should be tailored to our preferences and needs. • Non-exercising individuals should start with light physical activity and gradually increase its duration, intensity, and frequency. Health benefits will be felt with regularity.

According to WHO recommendations, the minimum time for physical activity is 150 minutes of moderate (or 75 minutes of intense) physical activity per week. The recommended time and intensity may vary depending on age group.

Moderate physical activity, what is it?

Moderate physical exertion is when the heart rate reaches 60% - 70% of the maximum heart rate for a given age. The recommended energy expenditure during exercise is 200 - 300 kcal/session or at least 1000 kcal/week (ideally 2000 kcal per week). The maximum heart rate for a given age can be calculated using the formula:

220 - age = maximum heart rate — estimated value; (For individuals starting training, the maximum value can also be calculated using the formula 200 - age or according to the Baum rule: 170 - age).

Light physical activity is below 60% of the maximum heart rate. It helps the body adapt to exertion, improves health and overall fitness, and aids in recovery.

Moderate physical activity is when the heart rate reaches about 70% (60 - 80%) of the maximum heart rate. It helps burn fat tissue and maintain the body in good shape. It accelerates metabolism, increases aerobic capacity, and improves sports performance. It prepares the body for intense effort. Intense physical activity is above 80% of the maximum heart rate. It increases endurance, strength, and speed. Suitable for experienced athletes. To control the level of effort, it is worth investing in a heart rate monitor – a pulse meter. It allows you to accurately determine the current heart rate.

Talking about moderate level of physical activity, I mean activities like brisk walking or cycling, fast dancing, aqua aerobics, or gardening tasks such as mowing the lawn, raking, or trimming bushes. Whereas vigorous exercise includes activities like running, fast walking, cycling at high speed, swimming, aerobic exercise, playing tennis, or heavy gardening work like chopping wood or shoveling snow. The main part of the training should be preceded by a 5 - 10 minute warm-up consisting of general developmental and stretching exercises. At the end, it is necessary to have about 5 - 10 minutes of calming and relaxing exercises.

Lack of physical activity - consequences

Lack of physical activity in childhood and youth contributes to the development of postural defects, as well as overweight and obesity. Lack of movement entails numerous very unpleasant consequences for our health.

It's true that a poor lifestyle - lack of physical activity, improper diet, substance abuse - really poses a huge danger not only to our health, but also to our lives. This spiral can be broken at various points. Everything is possible - you just need to want it, to have motivation. So change your life while you can, while it's not too late.

Motivation for physical activity

• Choose an activity you enjoy: Choose a form of physical activity that brings you joy and pleasure. It's much easier to maintain regularity when you're doing something that brings you joy.

• Set goals: Set specific goals you want to achieve through physical activity. These may be goals related to improving fitness, reducing weight, or achieving a certain level of endurance.

• Create a training plan: Develop a training plan that includes a schedule, type of activity, and duration of training. Record your workouts in a calendar to track progress and maintain regularity.

• Find support: Look for a group or exercise partner who will motivate and support you in achieving your goals. Training together can be motivating and provide additional energy.

• Reward yourself: Reward yourself for achieving goals and progress in physical activity. It can be something small, but something that brings you joy and motivates you to continue.

The impact of physical activity on the immune system - weakens or strengthens immunity?

Physical activity can have both positive and negative effects on immunity. As it is known, not every physical effort acts the same on the immune system. According to many studies, regular, moderate physical activity strengthens immunity, reducing susceptibility to diseases. Unlike lack of activity and high-intensity efforts. In heavily training athletes, the likelihood of infection (especially flu, colds) is higher compared to people performing moderate exercise. Increased susceptibility to infections can persist from 3 hours to even three days after intense training. Therefore, these people should ensure a sufficiently long rest period to regain effective functioning of the immune system.

Short-term overtraining has little effect on the body's immunity. However, if it lasts for a longer period of time, it can significantly increase the body's susceptibility to infections and even lead to chronic weakness, decreased fitness, and reproductive problems. Overtraining is an excess of workouts and starts, with too little rest.

That's why moderate-intensity physical activity is so highly recommended - this level is optimal for both our health and immunity.

What is the beneficial effect of moderate physical activity on immunity:

• Moderate-level exercises reduce the level of stress hormones, such as adrenaline and cortisol. The negative impact of stress on immunity is unquestionably proven in many studies.

• Every physical activity accelerates breathing, which mechanically helps to cleanse the lungs and airways of bacteria and viruses. This reduces the risk of colds or flu.

• A slight increase in body temperature during exercise inhibits the multiplication of viruses and bacteria. Fever has exactly the same effect.

• Direct changes in the immune system, especially in the action of non-specific immunity (phagocytic cells). When we exercise, antibodies and white blood cells start circulating faster in the blood, so they can detect viruses and bacteria earlier, reach threatened areas, and stop the development of potential infection.

Homework: Design your own physical activity plan.

• Choose at least three different types of physical activities that interest you.

• Determine the intensity, duration, and frequency of workouts in your plan.

• Make sure to follow the principles of variety, moderate intensity, and regularity.

• Prepare a training schedule for the next month.

Upload the created schedule to the BRAVOMY platform 😊