

Module 2 Physical Activity and Exercise
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Physical activity

Physical activity is defined as any voluntary bodily movements produced by the skeletal muscle that requires energy expenditure. It includes physical exercises as well as daily activities. Physical activities always help us to burn more calories from our body and enhance the metabolic process. The high level of metabolic process helps the individual to attain optimum level of health.

As per the wording of WHO the 81% of adolescents do not do enough physical activities daily and 70% of adults are suffering from hypokinetic diseases such as diabetes, hypertension, stroke, cancers...

Physical activity involves people moving, acting and performing within culturally specific spaces and influenced by a unique array of interests, emotions, ideas, instructions and relationships. Physical activity refers to all movements. Popular ways to get active include walking, cycling, sports and games, recreational activities and can be done at any level of skill and enjoy life.

Exercise

Exercise is defined as the planned and structured form of physical activity that helps the individual to maintain or enhance health and fitness.

Most of us are familiar with certain physical activities such as walking, jogging, cycling, weight training, swimming... these are all physical activities that are good to build up and maintain our physical health. The continuous, similar, repeated and long-durable physical activities can lead to injury. For example, someone who has been using walking only as his exercise routine for several years. Thus, those who use only walking are more likely to have knee pain and back pain. Therefore, we need a complete fitness programme for the optimum development of the body. We have to use different exercise patterns together to execute our training programme.

On the above definition, we have noticed the word "planned". That means the person who is going to train someone, he has to plan something special for his trainee. For the effective planning process, we need to know the following things: the trainee's age, body weight, current fitness level, gender... Each and every individual is different in many aspects so that they need a different approach for a better result. If we are going to plan an exercise chart for a hypertension patient, you

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should more care about his physical condition and the opinion of a doctor should also be taken. There will be higher chance to get harm to his life, if we are unaware about his health status.

After getting all the information regarding the individual we can make a structure by including all required exercises with comfortable manner. This kind of scientific approach definitely help them to enhance their fitness level without any injury and problems. Exercises patterns should be goal oriented, effective, enjoyable, feasible and supportive.

Types of exercises

There are two types of exercises. Aerobic exercise and anaerobic exercise

Aerobic and anaerobic exercises are excellent forms of physical activity. However, knowing the difference between each can take our fitness to the next level. All the exercise is better than going without. But most experts will agree the combination of both aerobic and anaerobic exercise is best.

Aerobic exercises

It is the type of exercise that breaks down glucose in the body by using sufficient amount of oxygen. There are the exercise comes under the low intensity category and we can perform it for a long duration without any fatigue. Ex. Walking, jogging, cycling, aerobic dance... with aerobic exercise, oxygen supplies energy sustain continues. Slow twitch muscle fibers are able to move and contract repeatedly without fast fatigue. The body likewise use carbohydrate and glycogen stores as its primary fuel source during the initial 20 minutes. After 20 minutes of exercise body will use fat as its energy fuel.

The following are the main functions of aerobic exercise in our body

- a. To enhance cardio-respiratory fitness and endurance
- b. To enhance muscular endurance
- c. To reduce excess body weight and fat

Anaerobic exercises

These are the types of exercises that breaks down glucose in the body without using sufficient level of oxygen. For example jumping, sprinting, weight lifting... anaerobic exercises are categorized as high intensity exercises and less durable as



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compared to aerobic exercises. Anaerobic exercises are typically unable to be carried out for more than two to three minutes at a time. Eventually, muscles will tire, weaken, feel discomfort and require a break. Breaks within repetitions allow muscles to rest and restoring the energy.

The following are the main functions of anaerobic exercise in our body

- a. To improve strength and speed
- b. It helps to build lean body mass or muscles
- c. It helps to improve bone mineral density

Physical fitness

Physical fitness is the ability of an individual to carry out his daily task with desired quality and quantity without fatigue. Physical fitness is generally achieved through physical activity, proper nutrition and sufficient rest. Proper nutrition means your body gets all the nutrients like carbohydrate, protein, fat, vitamins and minerals in a preferable manner. Plan your meal and include nutrient – dense food with low calories like vegetables, fruits, milk, eggs..just doing few exercise to achieve proper physical activities does not matter. Things has to be planned and exercised by including strengthening exercises, flexibility exercises, endurance exercises... are along with proper diet.

There are five major components of physical fitness. Speed, strength, endurance, flexibility and body composition.

Speed

The ability of an organism to cover maximum distance or perform the task with minimum interval of time is called speed.

Ex: sprinting, sprint cycling, playing football, basketball...

Strength

The ability of an individual to act against or overcome any kind of resistance is called strength.

Ex: lifting weights, wrestling, pulling a car...

Endurance



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The ability of an organism act or work for a long duration without fatigue is called endurance. While doing endurance activities individuals heart, lungs and muscles are work together for a long time. During exercise there is a cyclic process will takes placed heart helps our body by pump sufficient blood to all over the body, lungs oxygenates the blood and remove carbon dioxide, muscle produce force continuously and keeps the body move.

Flexibility

Flexibility is the range of motion or movement of an individual. This type of exercise provides better relaxation, comfort and faster recovery to your body. Flexibility exercises are act as the pain reliefer of human body. We can easily prevent joint pains and muscle pains while doing stretching exercises. Stretching, yoga and mobility exercises can increase our flexibility.

Body composition

Body composition is the percentage of body fat, muscles, bones, and water. That means the relationship of your body weight and the other physical factors. As we known that, the excess fat is the only thing that we have to remove from our body and it is considered as an unhealthy substance. The other substance like muscle, bone and water are good and they have major roles in body to stay healthy. Physical activities help us to gain positive weight and lose fat.

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