TRINITY COLLEGE FOR WOMEN
NAMAKKAL
DEPARTMENT OF NUTRITION AND DIETETICS

NUTRITION AND FITNESS
ODD SEMESTER

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EXERCISE

Exercise is defined as "a specific type of physical activity that is planned, structured and repeatedly done to improve or maintain physical fitness.

PRINCIPLES OF EXERCISE

Overload

Overload when it comes to fitness training cannot be overstated. To get the most out of workouts, must progressively increase the intensity and difficulty of exercises. That way, body can keep adapting and improving its performance.

1. Increase the weight or resistance on a regular basis. This is especially true for strength training exercises such as squats, deadlifts, and bench presses.

2. Increase the number of sets or reps during an exercise session.

3. Add more challenging exercises to the routine. If you're an avid runner, try adding in some hill sprints or interval training sessions.

4. Increase the duration or intensity of cardiovascular workouts. If you usually jog at a comfortable pace for 30 minutes, try pushing yourself to run for 45 minutes, or add in some short sprints during your run for an extra challenge.

5. Take rest days when needed, but don't take too many days off from training in between workouts. Rest days are important for muscle recovery and growth, but too much rest can lead to muscle atrophy and decreased performance over time.

Progression

1. Progression is an essential principle of fitness training for any individual looking to build strength and improve their performance.

2. It is the concept of gradually increasing the intensity of a workout, allowing body time to adapt and become more accustomed to it.

3. In order to progress the training, there are a few key techniques that can be used. These include increasing the weight you lift, the number of repetitions you do, and the amount of time spent on each exercise.

4. It's also important to remember that progression should be gradual; your body needs time to adjust to each step up in intensity in order to avoid injury and fatigue.

5. Progression can also be achieved by changing the type of exercises do or incorporating new exercises into the routine; this will help keep workouts fresh and challenging.

6. As with all other principles of physical training, progression requires dedication and consistency in order for it to be effective; make sure track the progress and adjust accordingly when necessary.

7. With dedication and hard work, progression can help to reach the fitness goals faster than ever before!

Recuperation

Recovery is an essential part of any fitness training program and shouldn’t be overlooked. It’s important to give body the time it needs to rest and repair after a workout, as this helps to prevent injury, improve performance, and increase muscular strength and endurance. To maximize recovery, can incorporate active recovery methods such as stretching and foam rolling into the routine or take a complete break from the activity for one or two days. Nutrition also plays an important role in the recovery process; replenishing electrolytes, proteins, carbohydrates, and other nutrients will help your body to recover more quickly. Lastly, getting enough restful sleep can help restore energy levels and provide a much-needed mental break from the grind of intense workouts.

Individuality

Individualisation is a key principle of fitness training, as every person has different needs when it comes to their physical fitness journey. Each person has unique genetics and physical status (age, training age, gender, initial fitness level, muscle fibres, VO2 max). Taking these factors into account will help develop an individualized plan that maximizes the potential of each individual.

Individualisation also takes into account the goals of each person. For example, some people may want to lose weight while others may want to improve their strength or endurance. Taking into account the individual's goals helps create a plan that is tailored to their needs and will help them reach their goals in an efficient manner.

Finally, individualisation can help create a plan that is realistic for each individual. Everyone has different capacities and limitations and understanding these helps create a plan that allows for progression without over-exertion or injury. When creating a plan, it is important to understand the individual's abilities and adjust the plan accordingly.

Individualisation is an essential principle of fitness training and helps create a program that maximizes progress while minimizing the risk of injury. Taking into account the individual's genetics, physical status, goals, and abilities create an effective program that allows each person to reach their fitness goals safely and efficiently.

Reversibility

Reversibility is a key principle when it comes to fitness training, as it helps to ensure that any workout gains or progress made won’t be lost when a person stops training.

Overuse

The principle in overuse injury is that the repetitive microtrauma overloads the capacity of the tissue to repair itself. During exercise, the various tissues such as muscles, tendons, bones and ligaments, are being loaded and experience excessive physiological stress. After the specific exercise activity, the tissues undergo adaptation in order to strengthen and to be able to withstand similar stress in the future.

Role of exercise in health

- improve muscular and cardiorespiratory fitness;
- improve bone and functional health;
- reduce the risk of hypertension, coronary heart disease, stroke, diabetes, various types of cancer (including breast cancer and colon cancer), and depression;
- reduce the risk of falls as well as hip or vertebral fractures; and
- help maintain a healthy body weight.

THANK YOU

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