

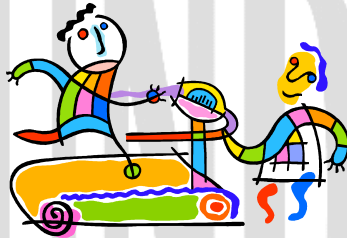
Principles of Training

Introduction

The Principles of Training serve as a basis for all types of physical development. Regardless of whether you are attempting to improve your fitness level for health reasons or if you are attempting to improve your athletic abilities, the Principles of Training apply to everyone. Therefore it is essential that you have a clear understanding of how to apply these concepts.

Efficient and Safe Training

In order to enjoy a healthy lifestyle, it is essential that you include regular activity in your regular daily lifestyle. Some people recognize the benefits of an active lifestyle. However, others have become accustomed to a lifestyle of inactivity as part of their daily life. Kids ride to school, watch TV, play video games and avoid physical activity. However, as we have discussed research has demonstrated the health benefits of including physical activity in your day to day life. Therefore, once you come to understand the importance of being physically active it only becomes a matter of organizing your lifestyle to include fitness activities in your daily schedule.



The Principle of Overload

In general terms, the various systems of the body will become stronger and function better if increased demands (overload) are placed on them. Although it is important to overload your body so improvement can occur, the stress should not be so severe that your body is not able to adjust.

As previously mentioned, physical fitness is a personal matter. Therefore the amount of overload varies with each individual. Whereas some kids will need to work more on flexibility some kids might have to work on muscular strength. The amount of overload may be different from individual to individual. This can be seen by comparing a younger person with an older person. While a young person may achieve a cardiovascular endurance overload through running a mile, an older person can achieve overload through a brisk walk around the track.



Frequency

Frequency refers to how often you exercise. Remember that exercise must be performed regularly if you intend to reach and maintain an adequate level of physical fitness. Ideally, your exercise program will become a daily habit, like brushing your teeth. Can you imagine the effects of only brushing your teeth a couple days a week? Similarly there is a direct connection between how frequently you work out and how healthy you are. Limiting your exercise to weekends is like brushing your teeth on weekends only. Exercising three days a week is the minimum frequency (how often you exercise) and will increase your level of fitness if the time (how long you exercise) is increased. How long you exercise depends on your goals. If you want the cardiorespiratory benefits of aerobic exercise you should exercise at least three days per week. Exercising five times a week however is more effective. If you want to lose weight. Most experts recommend exercising moderately six days a week. Weight training however requires time for muscles to rest and recover. Therefore, muscles should not be overloaded more than every other day.

Intensity

The intensity of all exercise should be increased enough to demand more effort than usual from the body. How hard you must work out is a critical question, because strenuous exercise may cause injury, while not training hard enough will result in little or no improvement. For instance if you have been actively involved in a particular aerobic sport like basketball, jogging one mile twice a week will not be enough to improve your cardiovascular fitness level.

The intensity of a fitness workout depends upon the fitness component you want to improve. For instance if you want to improve your cardiovascular endurance you must make your heart work harder than it normally does. The intensity of a cardiovascular workout is indicated by the number of times your heart beats during a workout. Remember it is important to stay within your Target Heart Zone.

Frequency/Intensity/Time

The principle of overload may be accomplished by increasing one of the three variables.

- **F**requency How often you exercise.
- **I**ntensity How hard you exercise.
- **T**ime How long you exercise.

FIT is the word formed from the first three letters of each of the three variables. **FIT** serves as a reminder of the three ways to achieve overload in your physical fitness program.

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Time

Time refers to how long you exercise. How many minutes do you jog (cardiovascular), lift weights (muscular strength and endurance), or perform stretching exercises (flexibility)? In order to be effective, a workout session must be maintained for a certain length of time. For example, to develop a cardiovascular fitness you need to maintain the activity for at least 20-60 minutes. Research shows that as time is increased, intensity is decreased. This means a person can spread the workout session over a longer period of time at an easier pace. Rather than biking 4 miles in 15 minutes, bike the same distance in 20 minutes at an easier pace. People who just started an exercise program should start out walking instead of jogging and limit the time of the workout.



They can gradually increase the time of the workout. Also, skipping a workout session occasionally is beneficial to allowing the body to rest, recover and prevent injuries. However, be careful not to let a layoff turn into stop exercising altogether.

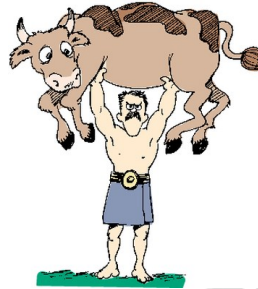
The Principle of Progression

As you work harder (overload), your body adapts. Because your body becomes accustomed to the workload you must progressively increase the amount of work for improvement to occur. If you progressively increase the load you will improve fitness and prevent injuries. For example, you can run the mile in 8 minutes consistently, but want to improve your cardiovascular endurance. To improve you would need to try and improve your time to 7 minutes or run 1.5 miles in 8 minutes. This would put the overload principle into effect.

It is important though to know when it is safe to progress. Think of the Principle of Progression as the schedule for the application for overload. You want to slowly and progressively apply stress to the body only when it is needed and not before. This is especially true in the first 4-6 weeks of your exercise program. If your workout is too intense or too long, you may feel unusually tired during your workout or even for a few hours afterwards. This is a signal that you have placed too much overload on your body. This is why it is important to evaluate the health related components of your fitness and to record your daily progress. With records of your progress and knowledge of the training principles you will know when it is safe to increase your overload.

The Principle of Specificity

The Principle of Specificity refers to the specific exercises that improve specific components of physical fitness in specific body parts. For example, flexibility exercises will increase flexibility but will not necessarily increase cardiovascular endurance. Stretching your legs will not increase flexibility in your arms.



Another example is when a person who has trained for one sport such as gymnastics and then attempts to play another such as basketball and quickly becomes tired. Each physical activity requires specific demands, and participating in that activity is the best way to improve.

It is always better to start a little too low than too high.

Goal Setting and Fitness Training

Remember to set goals that are within your physical ability. The principle of progression is the calendar in which you should apply the overload variables and should be considered when establishing personal goals.



Use it or lose it!

Unfortunately research has shown that you are losing it faster than you are acquiring it.

Key Terms to Understand

- Principles of Training
- Principle of Overload
- Principle of Progression
- Principle of Specificity
- FIT Principle
- Frequency
- Intensity
- Time

TRAIN - DON'T STRAIN

