

PRINCIPLES OF TRAINING

Specificity
Overload
Progression
Recovery

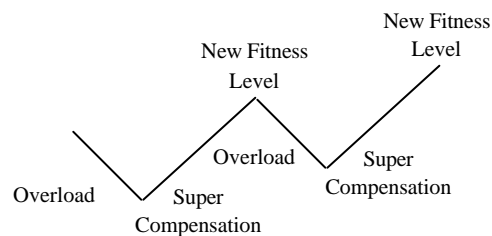
De-Training
Reversibility
Over Training
FITTA Principle

Specificity

The application of the SAID (Specific Adaptation Imposed Demands) Principle is essential in this type of training. Training programmes are tailored to the exact demands of the sport, the position played, and the individual needs of the athlete. This allows for specific gains to be made on the relative energy systems employed during training. For example to increase muscular endurance the specific muscles must be progressively overloaded using high amounts of repetition on a low resistance.

Overload

For training adaptations to occur the bodies systems must be overloaded beyond their normal levels. If these extra stresses are applied over a period of time the system will adapt and this becomes its new norm. During this adaptation phase the bodies systems super or over compensate in order to cope with the next session. Training in this way along with sufficient recovery will allow for super compensation to occur thus resulting in an overall increase in fitness levels.



(Training Excellence, 2002)

Overload can be achieved in several different ways:

- Changing the speed of the activity
- Increasing the resistance
- Increasing sets or reps
- Changing training method
- Increasing overall time of session
- Decreasing rest between sets

Progression

To continue to develop, increase, grow and improve the systems being trained must be subjected to overload progressively. Greatest gains are found at the start of a programme and subsequently slow down. However progression can help shock the body back into adaptation by changing the training method used.

Recovery

You must give your body's systems adequate time to recover following a training session or you run the risk of overtraining. There is no simple way of determining how much recovery you need it's simply a judgement call on how you feel. If you feel stronger and able to work hard during a session it is a good sign that you have recovered. If however you feel tired, sluggish and unable to meet aims of the session it is a good indicator of not being fully recovered. The amount of time needed for recovery after a session will be based on:

- The intensity of the session
- The duration of the session
- Current fitness level
- Diet

De-Training

De-training is a de-conditioning process that affects performance due to the reduction in physiological capacity. During this period there is a loss of physiological adaptations associated with the training effect. Most training benefits are lost within a short period of stopping training. Most of the beneficial effects of training return to normal levels with 4-8 weeks dependent on the individual. For an athlete detraining takes place out of season when the frequency, intensity and volume of sessions are reduced.

Reversibility

We have already explained that during periods of exercise the human body makes adaptations to cope with the stresses placed on it. During periods of inactivity the human body will however reverse these adaptations in an attempt to return itself to a norm as this is the current level of stress placed upon it. Therefore gains that have been made will be lost.

Over Training

Over training occurs when an individual becomes overly fatigued due to excessive frequency, intensity or volume of training. Over training can also be the result of doing the same workout repeatedly. Classic signs of over training are:

- A decrease in performance
- Aches and/or pains in muscles and/or joints
- Fatigue/tiredness and insomnia
- Elevated morning pulse
- Headaches
- Inability to complete training sessions
- Susceptibility to illness

To avoid over training a programme must be designed to include variations of training method such as specificity, intensity, volume, rests and exercises used. All this should also be organised into a periodised plan.

The FITTA Principle

This is one of the most fundamental training principles. When applied systematically to a training programme it ensures that each part is developed in tune with the development of fitness and skill levels. General guidelines are available from the American College of Sports Medicine.

Frequency How often an activity or session should be done for an adaptation to occur.

Intensity How hard the workload is:

Rate: Refers to the speed of activity

Range: Refers to the range of movement used

Rests: Refers to the amount of rest between exercises

Resistance: Refers to the workload

Reps: How many times the activity is performed

Time The length of time spent on an activity

Type Describes the activity

Adherence A means of ensuring that individuals stick to their training programme
