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Phs 402 ASSIGNMENT

Q .) Discuss how six principles of Sports physiology training can be applied to improve athletes performance during international competition.

A.) There are six Principles of sports physiology training:

Specificity Priciple

Overload Principle

Progression Principle

Principle of Reversability

Individuality Principle

Principle of Diminishing returns

**Specificity**. The principle of **specificity** means that adaptations to training are specific to the training. ... **Specificity** means if you participate in an aerobic sport such as marathon running, you need to **do** aerobic training that involves running so that your adaptations **improve** your **performance** in that sport.

Progression: Increase the resistance of that exercise/movement as long as technique is correct. Progress to a more difficult form of the exercise/movement once the challenge of the simpler form is beneath the individual's **training** level.

Principle of Reversability: After athletes stop their workout routines and enter into a detraining period, reversibility occurs rather quickly. There is no exact rule because everyone's body is unique, but the training loss occurs at about one-third the rate of the gains. The loss of various physical skills can occur in just one to two weeks. Most athletes tend to lose muscular endurance the most, followed by muscular power, and finally followed by muscular strength. Athletes also tend to lose their aerobic capacity, gained through sports such as running and cycling, more quickly than they lose muscle strength.

Individuality Principle: In order to maximize the productivity of training, a coach should try to cater to each athlete's likes and dislikes. Some athletes thrive on the formal requirements of interval training accompanied by exact timing of distances and regular monitoring of heart rates. Others prefer a mix of continuous, over-distance, and Fartlek work. Although athletes should not be encouraged to work only on their strengths and ignore their weaknesses, it is important for them to develop and maintain a positive attitude and adhere strictly to a training schedule. Chapter 10 discusses the major factors that are associated with constructive programs and the atmosphere of training that encourage the best training responses. These factors require some understanding of athletes' training preferences.

Principle of Diminishing returns: Diminishing Returns Principle When unfit athletes begin a training regimen, their fitness improves rapidly, but as they become fitter, the amount of improvement lessens as they approach their genetic limits. A corollary to this principle is that as their fitness increases, athletes need more work or training to make the same gains.