

## PAF30-PAF40

PERSONAL FITNESS

# TRAINING PRINCIPLES

- FITT PRINCIPLE
- PRINCIPLE OF OVERLOAD
- PRINCIPLE OF PROGRESSION
- PRINCIPLE OF SPECIFICITY
- PRINCIPLE OF INDIVIDUAL DIFFERENCE
- PRINCIPLE OF REVERSIBILITY
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## FITT PRINCIPLE

#### THE **FITT** FORMULA: PHYSICAL FITNESS

	Aerobic	Flexibility	Muscular Endurance	Muscular Strength	Body Composition
F	3-5 times / week	Daily     Warm-up     Cool down	Daily for some muscle groups     3-4 times / week	3 times / week     Different muscle groups	Daily exercising     Follow Canada's     Food Guide
	60-90% of max. heart rate	<ul><li>Hold 15-30 seconds</li><li>Total body</li><li>1-3 reps</li></ul>	<ul> <li>15<sup>†</sup> reps</li> <li>,50% max. weight</li> <li>Body weight</li> <li>1-3 sets</li> <li>8-12 exercises</li> </ul>	<ul> <li>70-90% of 1-rep max.</li> <li>1-4 sets</li> <li>8-12 reps</li> <li>8-12 exercises</li> </ul>	Light to moderate
T	<ul><li>15-60 minutes of continuous activity</li><li>Progressive</li></ul>	• 10-20 minutes	30-60 minutes     Progressive	<ul><li>15-60 minutes</li><li>Progressive</li></ul>	30-60 minutes     Progressive
Т	Large muscle groups Continual rhythmic Running, cycling, swimming Games	static stretch     controlled dynamic stretch	resistance training     body weight     circuit training	<ul> <li>resistance training</li> </ul>	aerobic activity     walking, running, cycling, swimming

#### **FREQUENCY**

- The number of training sessions per week spent training
- General guideline is 3-5 times per week
- Determination of frequency depends greatly on the athlete's level of fitness, athletic aspirations, and type of training

### **INTENSITY**

- How hard the individual must work
- Taken as a percentage of the individuals maximal aerobic and anaerobic power
- General guideline is 50%-100% of the athlete's maximal ability/effort
- Intensity is also altered by changing the rest of time

### TIME

- Amount of time spent in a single training session
- Depends on the athlete's level of fitness, athletic aspirations, and type of training

#### **TYPE**

- Refers to the type of training method used
- Depends on the athlete's level of fitness, athletic aspirations, and sport or activity for which he or she is training

#### PRINCIPLE OF OVERLOAD

- For physiological change, the body must perform tasks that are more challenging than those to which it is accustomed
- Over time the body will adapt, therefore in order to continue to grow, new demands must be incorporated
- Overload can include all aspects of training, i.e., physiological, emotional, mental, and psychological

#### PRINCIPLE OF PROGRESSION

- In order to constantly improve, an athlete must progressively increase the overload over time
- The athlete must be aware that loads and demands on the body must occur over time to increase performance and decrease injury

#### PRINCIPLE OF SPECIFICITY

- In order for specific outcomes to occur, training must be specific to those outcomes
- Example: if you want to improve your vertical jump, your exercise prescription should include explosive power exercises that target the legs
- Specific physiological adaptations will occur if training is specific
- Training must reflect athlete's sport specific needs

# PRINCIPLE OF INDIVIDUAL DIFFERENCES

- Every athlete has a different physical and psychological make-up
  - Pre-training fitness levels
  - > Requirements within their sport
  - > Age and gender
  - Ability to recover from workouts
  - Ability to recover from injury
  - Body type

#### PRINCIPLE OF REVERSIBILITY

- "Use it or lose it"
- Muscles will start to lose training effects as soon as training stops
- Atrophy (muscle degeneration) will occur during sustained period without training
- Significant training benefits can be lost after 2 weeksof not training – i.e. Christmas Break
- Reasons include: injury, lack of motivation, overtraining, and burnout

# PRINCIPLE OF DIMINISHING RETURNS

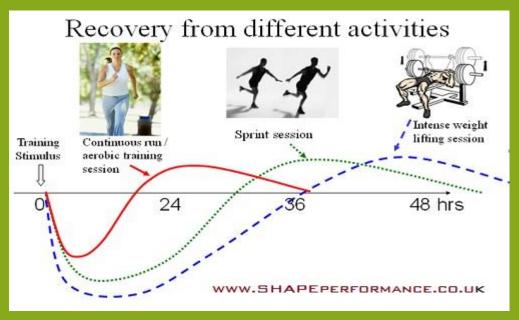
- A person's training gains will reflect that person's prior level of training
- Individuals who do not train or train very little will see significant gains
- Highly trained individuals will see little gains as they experience performance plateaus
- Changing training programs and philosophy are ways to help prevent performance plateaus

#### **CEILING EFFECT**

- As you approach you ATHLETIC POTENTIAL (genetic) the rate of increase in your fitness and strength will start to slow.
- When this occurs a temporary lay-off, change of routine, or a decrease in intensity may be needed to further your progress.

#### PRINCIPLE OF RECOVERY

- Adequate rest is important in a training program because the body repairs itself when you rest (sleep) and grows.
- Along with proper rest, it is equally important that you refuel the body with proper nutrition as close as you can after the workout.



#### General Rules:

- Aerobic Activity = 24 hours between workouts
- Anaerobic Activity = 48 hours between workouts
- Intensity and Duration may dictate the rest period

#### PRINCIPLE OF REVERSIBILITY

- If a training program is discontinued completely, the training effect will be lost at 1/3 of the rate it took to obtain it.
- For example: An improvement in muscular strength that took 2 months to obtain will be lost completely in 6 months.
- The rate of regression is even faster when talking about aerobic fitness decreases.

#### **TEDIUM**

- Tedium means boredom
- Basically if you carry out the same workout routine day after day, you are likely to become bored with the program. You may lose motivation.
- To keep the motivation high you should vary your program by adding new exercises, training a different energy system, or change up your workout venue.