#### Skill related fitness

#### Agility:

- -Illinois agility run test
- -T Test.

#### Balance:

- -Stork stand test
- -Y balance test.

#### Coordination:

- -Alternate-Hand Wall-Toss test
- -Stick flip coordination test.

#### Power:

- -Vertical jump test
- -Standing long/broad jump
- -Margaria-Kalamen power test.

#### Reaction time:

- -Ruler drop test
- -Online reaction time test (reaction test timer)

### **Physical related fitness**

#### Aerobic endurance:

- -Multi-stage fitness test (Bleep test 20 metre distance)
- -Yo-Yo test
- -Harvard step test
- -12-minute Cooper run or swim.

#### Muscular endurance:

- -One-minute press-up
- -One-minute sit-up
- -Timed plank test.

#### Flexibility:

- -Sit and reach test
- -Calf muscle flexibility test
- -Shoulder flexibility test.

#### Speed:

- -30 metre sprint test
- -30 metre flying sprint.

#### Muscular strength:

- -Grip dynamometer
- -1 Rep Max.

## Fitness testing considerations

#### Reliability:

-Whether the results can be replicated/ trusted

#### Validity:

-Whether the test measures the correct component of fitness.

#### Factors affecting reliability:

- -Calibration of equipment
- -Motivation of the participant
- -Conditions of the testing environment
- -Experience of the person administering the test
- -Compliance with standardised test procedure.

#### Practicality:

- -cost
- -Time taken to perform &set up the test
- -Time taken to analyse data
- -Number of participants that can take part in the test at any time.

## fitness

Methods of training - Physical related

#### Aerobic endurance:

- -Continuous training
- -Fartlek training
- -Interval training
- Circuit training

#### Flexibility:

- -Static active
- -Static passive
- -Proprioceptive Neuromuscular Facilitation (PNF) technique

#### **Muscular Strength:**

- -Fee weights
- -Fixed resistance machines

#### Speed:

- -Acceleration sprints
- -Interval training
- -Resistance drills

#### **Muscular Endurance:**

- -Fee weights resistance machines
- Circuit training

## **Principles of training (In SPOR VARR)**

#### Additional principles of training

- -Individual needs
- -Specificity
- -Progressive Overload
- -Reversibility
- -Variation
- -Adaptation
- -Rest & Recovery

## Basic principles of training

- -Frequency
- -Intensity
- -intensity
- -Time
- -Type

## The effects of long-term fitness training on the body systems The efforts on the

#### Aerobic endurance training:

- -Adaptations to the cardiovascular and respiratory systems
- -Cardiac hypertrophy

Decreased resting heart rate

- -Increased strength of respiratory muscles
- -Capillarisation around alveoli.

#### Flexibility training:

- -Adaptations to the muscular and skeletal systems
- -Increased range of movement permitted at a joint
- -Increased flexibility of ligament and tendons
- -Increased muscle length.

### Muscular endurance training:

- -Adaptations to the muscular system
- -Capillarisation around muscle tissues
- -Increased muscle tone

# The effects of long-term fitness training on the body systems

### Muscular strength and power training:

- -Adaptations to the muscular and skeletal systems -Muscle hypertrophy
- -increased tendon and ligament strength
- -Increased bone density.

#### Speed training:

- -Adaptations to the muscular system
- -Increased tolerance to lactic acid.

## **Training intensity**

- -Maximum heart rate 220 -Age
- -Aerobic training zone 60-85% MHR
- -Anaerobic training zone 85%-MHR

#### Rate of perceived exertion

RPE to HR = x10

HR to RPE = Divide by 10

## Methods of training - Skill related fitness

#### Agility:

-Speed Agility and Quickness training (SAQ) – drills

#### Power:

-Plyometrics (lunging, bounding),

#### Balance:

-Use of specific training exercises that require balancing on a reduced size base of support.

#### Coordination:

-Use of specific training exercises using two or more body parts together.

#### Reaction time:

-Use of specific training