

## PHYSICAL FITNESS

### What is Physical fitness?

Definition: A state of health characteristics, symptoms, and behaviors enabling a person to have the highest quality of life.

In other words, your overall state of health.

Physical fitness depends on four different capacities:

- **Endurance**
- **Strength**
- **Flexibility**
- **Speed**

### 1. Endurance:

#### Types of Endurance:

- Aerobic endurance
- Anaerobic endurance

**Aerobic endurance:** The body's ability to support a low-intensity effort for a long time.

- Must be done continuously for at least 20 minutes.
- Must increase your heart rate.
- Uses cardiovascular and respiratory systems.

*Examples:* Long-distance running (a marathon.), biking, swimming, aerobics class, basketball...

**Anaerobic endurance:** the body's ability to support a high-intensity activity the longest time possible. Ex: fartlek

#### Heart Rate

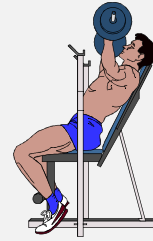
- Heart Rate = the number of times your heart beats in one minute.
- **Maximum Heart Rate =** the fastest your heart can beat. It is found by taking 220 and subtracting your age.

$$\underline{\underline{(Max HR = 220 - age) = Ex. HR = (220 - 15) = 205bpm}}$$

## 2. Strength

### Types of strength:

- Maximum strength
- Strength-endurance



**Maximum strength:** means making the maximum muscular contraction in only one movement (ex: Maximum triceps force on the triceps pull, 30kg). This means that a person moves 30 kg maximum in just one attempt.

- Must involve a maximum effort.
- Must be moving a very heavy resistance.

*Example:* Weight training moving a heavy weight with a low number of repetitions.

**Strength- Endurance:** the ability of a muscle to repeat contractions against a less-than-maximal load over a long time. We use lighter weights so we can do more repetitions. Ex: the fitness circuits we do in class.

- Must involve contracting muscles many times.
- Must involve some type of light resistance
- Strength is necessary in all sports

*Examples:* Crunches/sit-ups, push-ups..., bodyweight exercises: doing exercises using the weight of our own bodies. You can use your whole body or just part of it. (Ex: push-ups, squats, sit-ups...)

### **Benefits of improving strength- endurance:**

- Maintain good posture.
- Prevent injuries.
- Prevent back problems.

## 3. Flexibility

**Definition:** A measure of a joint's ability to move through a range of motion. This ability involves practicing movements that loosen up the joints and stretch the muscles.

We must practice every day to get the most movement possible. Important for all sports, especially: Gymnastics, swimming, karate, volleyball.

### Types of Flexibility:

**General:** involves various joints

**Specific:** Involves just one joint

**Benefits of stretching:**

- Reduced risk of injury
- Increases speed
- Improves athletic performance.
- Improves circulation.
- Feels good - relaxes you.



*How to improve flexibility:*

**Actively:** alone, using the force of gravity

**Passively:** with the help of a partner

**4.Speed:**

**Definition:** Carrying out several movements as quickly as possible.

*Types of speed:*

- Reaction speed
- Cyclical speed

To work on reaction speed: different types of starts: sitting, face down, standing, handkerchief drop...

For cyclical speed: sprint for a short distance and time

**Activities:** athletics, swimming, but also in team sports ex: sprinting in a football match, or the reaction speeds in swimming or athletics starts

