

WARMING UP

DEFINITION: Exercise of increasing intensity to prepare our bodies for high level performance in the best possible conditions.

Example: A car engine does not produce good results until the temperature increases and it is properly lubricated. The human body is not prepared for physical exercise until we do some warm up exercises.

What would happen to an athlete who competed without warming up?

- a) **In a long race:** The first stage of the race would serve the athlete as warm up but his/her (record) performance would come down drastically. On the other hand, if he/she had tried to start running fast from the beginning, fatigue (tiredness) would have appeared very soon and the risk of injuries would have increased.
- b) **In a short and intensive race:** The athlete could not get the best performance and the risk of injuries would increase a great deal.

OBJECTIVES

- To avoid injuries
- To prepare for the highest level of performance.

You can get these objectives thanks to some physiological and psychological adaptations which increase:

- Your heart frequency: your heart beats and your blood flow increase. This avoids the early fatigue and so you can make longer and stronger efforts.
- Your respiratory frequency: you can go from 12 or 15 breathings per minute to 20 or 25 approximately. In this way, blood and muscles will receive more oxygen.
- Your elasticity : (ability of a muscle to stretch out and go back to its first position) and
- Your flexibility by raising your temperature. This increase of temperature will allow joints to move easily and reduce the risk of muscle injuries.
- The quality of reaction of the nervous system.
- And to improve the muscle coordination and mental concentration of the participant during the trial.

PHASES AND EXERCISES

- **First phase:** We prepare our cardio respiratory system by doing :
 - movements in all directions (forwards, sideward, backwards, crossing our legs, ...)
 - combining them with arms movements, trunk movements, etc ...
 - overall exercises (Use as many muscles as possible)

- **Second phase:** We prepare our muscles and joints (locomotive system) by alternating a gentle jog with:
- a) Mobility of joints trying to get as much flexibility as possible.
 - b) Muscle elasticity and flexibility.

ORDER: Start up and down or vice versa.

Push-ups (press-ups)
Stretches
Bend sideways
Rotation
Abduction
Circunduction
Adduction

REPEAT 5 to 8 times no more. Remember, we are just warming up.

PAUSES: avoid them, above all, when the temperature is low. Alternate static and dynamic exercises; jog before you start another static exercises.

- **Third phase:** We increase the rhythm by doing exercises of greater intensity:

Sit- ups
Push-ups
Jumps
Skipping
Progressions
Accelerations (about 5)

- **Fourth phase:**

Specific part: simulate the specific activity at two levels:

- Physical level: we will try to warm up the muscles which are going to get involved in the sport we want to practise, and we will do movements typical of that sport.
- Technical level: passes, catches, throws, ... We can combine them with physical movements.

We will finish by doing stretches and keeping the body temperature elevated until the activity starts.

Warming up has been presented in four set phases in order to learn them by heart easily. However, likewise we can practise the first two phases together and the last two phases also. We can do stretches in the third and fourth phases as well.

TYPES OF WARMING UP

- Play activities: to make all the systems work.
- General: we do the first three phases but, sometimes we only do the first two when the activity has a medium-low intensity.
- Specific: When we do all the phases to practise technical (specialised) activities.