

GOVT. DEGREE COLLEGE SANGRAH

PHYSICAL EDUCATION

SPORTS TRAINING

2ND YEAR. PED (204)TH

PRESENTED BY
ASSIT.PROF. MANOJ
KUMAR

WARMING UP AND COOLING DOWN

Warm up


- Warm up is an optimum adjustment of player to the game requirements by means of physical exercises for the fulfilment of certain sports task. It is necessary because the body is adjusted for functional reason to bring out the required normal performance.
- Warm up is the preliminary activity or exercises that a player carries out for physical and psychological preparation before a game or a training session.


TASK OF WARM UP

- Switch over the body function from **resting state** to **physical activity**.
- Full mobilization of **strength system** in the body.
- To enhance **adaptation capacity**.
- To adopt **specific demand** of the body.

IMPORTANCE OF WARM UP


- An enzyme functioning is better at increased body temperature. (0.2 to 0.3 °C)
- Increased temperature facilitate nerve transmission, motor unit recruitment and muscle metabolism.
- Speed of contraction and relaxation is faster in warmed muscle.
- Reduce muscle stiffness.

- 
- Economy in movement because of low viscous resistance with in warmed muscle Airways dilates and facilitate air flow towards lungs and within lungs.
 - It facilitates O₂ utilization by warmed muscle because Hb releases more O₂ at higher muscle temperature.
 - Body achieves the stage of 2nd wind and workable HR.
 - Blood vessels dilates and facilitate blood flow towards active muscles.

- 
- Decrease blood flow toward passive organs, stomach function will be stopped.
 - Helps in avoiding injuries because cold muscle is sensitive to tear.
 - Better coordination as it activate dynamic stereotype which is stored in the brain (movements).
 - Mentally focused on training.




METHODS FOR WARM UP

- Active warm up
 - Passive warm up
- 



TYPES OF WARM UP


- General warm up
 - Specific warm up
- 

General warm up exercise structure

- Mild stretching exercises (1-2 min.)
- Cardiovascular respiratory exercises C.V.R #1 (3-5 min.)
- Main stretching exercises (5-8 min.)
- C.V.R #2 (2-3 min.)
- Strengthening effect exercises (1-2 min.)




Specific warm up

- Specific warm up is the preparation of body for the main task.
 - Involve those muscle groups and body systems which will be used during main task.
 - Type of muscle contraction and movement pattern should be according to main task.
 - Perform the upcoming task at slight lower intensity.
 - Load dynamic is the main consideration.
 - It is always after general warm up.
 - Duration depend on training task, ie endurance, power training etc.
 - Specific warm up for a competition is totally different from other training tasks.
 - On an average 30 to 35% of total warm up time is devoted to sp warm up.
- 



COLING DOWN

- Substitutes should always warm up prior to substitution
 - Generally it is the neglected part of training session.
 - Equally important as the warm up.
 - Aim is to bring down the body functioning towards normal.
 - Low intensity exercises like jogging, walking and stretching exercises are used for this purpose.
 - Duration depend on the work out during main phase, on an average 10 to 15 min should be given.
- 



Benefits

- Aid in dissipation of waste product.
 - It reduces the potential of DOMS (delayed onset of muscular soreness).
 - Decrease the chances of dizziness or fainting caused by the pooling of venous blood at the extremities.
 - Helps in maintaining flexibility.
 - Helps in faster recovery.
 - Allow HR to return towards resting state
- 