

# CAMBRIDGE NATIONAL

Unit 2:  
How can an appropriate warm up  
and cool down prevent injury

## WARM UP!



### Physical Benefits of a warm up

1. Warms up your muscles
2. Increases body temperature
3. Increase in heart
4. Increase in flexibility of muscle and joint
5. Increase in pliability of ligaments and tendons
6. Increase in blood flow and oxygen to muscles
7. Increase in speed of muscle contraction

### Components of a Warm Up

Pulse Raising

Exercises that slowly increase the heart rate and body temperature

Mobility

Exercises that take the joint to their full range of motion (ROM)

Dynamic Movements

Changes of speed and direction

Stretching

Dynamic stretching linked to the sport

Skill Rehearsal

Rehearsing common movement patterns



Mental rehearsal

### Psychological Benefits of a warm up

Controls your arousal levels so you get into the zone or it settles your nerves

Improves your concentration and focus

Increases a persons motivation

Allows you to perform mental rehearsal so you can picture the image and develop positive feelings

*Physical Benefits of a Cool Down*

**\*HELPS THE BODY  
GRADUALLY BACK TO REST**

**\*LOWERS THE HEART RATE**

TIME TO  
COOL DOWN

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**\*GRADUALLY LOWERS  
TEMPERATURE**

**\*CIRCULATES BLOOD  
AND OXYGEN**

**\*REDUCES BREATHING RATE**

**\*REMOVES WASTE PRODUCTS  
SUCH AS LACTIC ACID**



*Physical Benefits of a Cool Down  
Continued....*

**\*REDUCES THE RISK  
OF MUSCLE SORENESS\***

**\*AIDS RECOVERY BY  
STRETCHING MUSCLES\***

1. Pulse lowering

*Exercise that gradually  
lower heart rate & body  
temperature*

2. Stretching

*Maintenance stretching  
and static stretching*

**CRUNCH**



*Stretching, lengthens and strengthens muscles  
ready for the next work out.*

*Key Components of a Cool Down*

*Question - Without turning back to the front page can you list the 7 benefits of a warm up*

*Answer*

*Question - Without turning back to the front page can you list the 5 Components of the Warm Up?*

*Answer*

## Specific needs of Warming Up and Cooling Down



## 1. Characteristics of group or individual

*\*Size of the group*

*\*Age of the participants*

*\*Experience of the participants*

*\*Fitness levels of the individuals*

*\*Any medical conditions the participants may have*



## 2. Environmental Factors



*What is the weather and temperature outdoors?*



*What available space do you have?*

## 3. Suitable preparation for your sport or activity

*This means that you prepare specifically for your sport.*

*1. If you are playing rugby and taking contact then you should take contact in the warm up*

*2. If you are a 100M sprinter then you should be doing sprint starts in your warm up*

*3. If you are a goal shooter in netball, then you should be shooting in the warm up*

