

Aerobic Exercise

Aerobic exercise is any form of exercise which is completed at an intensity that allows a plentiful supply of oxygen to be taken in by the lungs and used by the body.

Below is a summary equation and sporting examples of **aerobic** exercise:



These sports are all performed at a relatively low intensity and for a prolonged period of time.

Anaerobic Exercise

Anaerobic exercise is any form of exercise which involves short periods of high-intensity work which prevents the athlete from taking in enough oxygen to meet the energy demands of the exercise.

Below is a summary equation and sporting examples of **anaerobic** exercise:



These sports are all performed at a relatively high intensity for only a short period of time.

Aerobic and Anaerobic Exercise

Methods of Recovery

Following exercise it is important that the athlete takes steps to aid their recovery, in order to ensure that they are ready to compete again as quickly as possible.

The different methods of recovery are outlined below:

Cool down:

- ☉ The athlete should continue to perform light exercise in order to maintain an elevated breathing rate.
- ☉ They should complete a series of stretches following exercise.
- ☉ This helps to remove **lactic acid** from the body.

Ice baths and massage:

- ☉ Athletes can sit in ice-cold water following exercise, or receive a sports massage, in order to aid the removal of lactic acid and prevent **delayed onset of muscle soreness (DOMS)**.
- ☉ Important after **anaerobic** exercise.

Diet:

- ☉ The athlete should eat **carbohydrates** following prolonged exercise, in order to restore their energy stores.
- ☉ They should also ensure that they consume enough water to **rehydrate** themselves.

Revision Success Tip!

Remember!
You need to be able to justify the relevance of these methods for different sports.



EPOC

- ☉ Excessive **post-exercise oxygen consumption (EPOC)** is the process which ensures that lactic acid is removed from the body by keeping an elevated breathing rate after exercise has stopped.
- ☉ **EPOC** occurs following **anaerobic** exercise, such as performing a 100 m sprint.
- ☉ The graph below outlines the breathing rate of an athlete during and after **anaerobic** exercise:

