

BLOG.SQD

What is EPOC?

When we train we need energy. How our body gets that energy is determined by how intensive our training session is. During a training session your body will generally use your aerobic pathway and in doing so uses oxygen to produce ATP (Adenosine triphosphate); the fuel your body needs for muscular activity. If at any point during your session the energy demands increase (increase in intensity) your body will switch systems and produce ATP anaerobically (without oxygen). The use of this system increases the need for oxygen after your workout; this is called Excess Post-Exercise Oxygen Consumption (EPOC), or oxygen debt.

EPOC is the amount of oxygen required to restore your body to its normal, resting level of metabolic function (called homeostasis) and explains how your body can continue to burn calories long after you've finished your workout. Once your training session is finished oxygen is used for a number of functions, which include:

- Producing ATP to replenish stores used during the session.
- Restoring body temperature back to normal.
- Re-synthesis of muscle glycogen from lactate in the liver during a process known as Gluconeogenesis.
- Restoring the bodies' oxygen levels (in your venous blood, muscle blood and myoglobin).
- Working with protein to repair tissue damaged during training.

When it comes to losing body fat, research has shown that the more oxygen that is burnt during and after a session, the more calories expended. Burn more calories, drop more body fat!

However, training for a longer period of time doesn't mean that EPOC will be greater. It is the intensity of the session that affects EPOC and so lifting heavy weights, HIIT sessions and circuit training are all ways of increasing the amount of oxygen your body needs and therefore increasing EPOC. It is important to focus on keeping rest periods short and weights heavy.

A favourite of the advanced training world is the use of a program known as German Body Composition training (GBC). This method of training is characterised by short rest intervals and the use of multi-joint exercises to stimulate Growth hormone production. Give this a try and I can guarantee your EPOC will be higher than it's ever been before. Just make sure you don't cheat!

Ben
WOD.SQD