

Caffeine

What is it?

It is a drug that prevents you from sleeping. Caffeine is known medically as trimethylxanthine, and the chemical formula is $C^8H^{10}N^4O^2$. When isolated in pure form, caffeine is a white crystalline powder that tastes very bitter. The chief source of pure caffeine is the process of decaffeinating coffee and tea.

How does it work?

It stimulates the central nervous system and increases the heart rate. Medically, caffeine is useful as a cardiac (Heart) stimulant and also as a mild diuretic (it increases urine production and dehydrates you). Recreationally, it is used to provide a "boost of energy" or a feeling of heightened alertness. It's often used to stay awake longer - college students and drivers use it to stay awake late into the night. Many people feel as though they "cannot function" in the morning without a cup of coffee to provide caffeine and the boost it gives them. **It is dangerous to use it instead of sleep on a regular basis.**

Caffeine is an **addictive drug**. Among its many actions, it operates using the same mechanisms that amphetamines, cocaine, and heroin use to stimulate the brain. Caffeine's effects are milder than amphetamines, cocaine and heroin, but it is changing the same channels in your brain, and that is one of the things that gives caffeine its addictive qualities. If you feel like you cannot function without it, get headaches without it and must consume it every day, then you are addicted to caffeine.

Why is it introduced into our food?

It is a cheap way to flavour food. In some foods it occurs naturally.

What is it in that I might eat or drink?

Coffee, Tea, Cola, Chocolate and special formulated drinks such as red bull.

Is Caffeine and sport Compatible?

Lets look at the facts...

Sport raises your heart rate	-	Caffeine raises your heart rate
Sport dehydrates you	-	Caffeine dehydrates you
Sport requires rest and sleep to recover	-	Caffeine prevents sleep

There we have it – Caffeine does reduce your ability to play sport, and while it might be impossible to avoid it completely – If you are serious about your sport, it is suggested that you do the following:

- Do not drink caffeine or eat chocolate 2 hours before bed time
- Do not drink caffeine or eat chocolate 3 hours before sport
- If you drink caffeine drinks on the day of high activity through sport, take extra care to cool down properly, at least 15 minutes, as your heart is working double hard.

You only have one heart – look after it!

Note: There is some study into the fact that caffeine has been shown to open airways to help asthmatics, but specialist are still arguing its benefits Vs the problems and side effects.