

CAFFEINE

Do you know that coffee is now the most popular hot drink in Australia with 2.1 billion cups bought from cafés and other vendors a year? (Roy Morgan Research, 2014).

Do you also know that caffeine is found in coffee, chocolate, tea, cola, cocoa, energy drinks and over-the-counter medicines including No Doz and cough or cold and flu mixtures?

WHAT'S CAFFEINE?

We know that caffeine is an ingredient that can be found naturally in the leaves, seeds, nuts or fruit of more than 60 plants. Some of the most commonly known sources of caffeine include coffee beans, tea leaves, cocoa beans and guarana plants. However, even though the source of caffeine is naturally occurring – all drugs have the potential to cause harm, including caffeine.

WHAT HAPPENS WHEN YOU CONSUME CAFFEINE?

Caffeine is a stimulant drug. This means it speeds up the central nervous system or CNS messages travelling between the brain and the body. Like any drug, effects differ from person to person depending on factors such as age, body size and general health. If you are a regular caffeine user you may have different experiences from people who only consume caffeine products occasionally. As a stimulant, caffeine can cause increased alertness and activity, increased breathing and heart rates, dizziness, headaches, dehydration, increased anxiety and irritability, and frequent trips to the toilet. These effects can be experienced between 5 to 30 minutes after consuming caffeine and may continue for up to 12 hours.

While caffeine may temporarily help you overcome symptoms such as tiredness and restore alertness, it can have side effects such as those mentioned earlier, especially for young people. Caffeine use can also cause dependence in the body if used regularly so withdrawal symptoms such as headaches, tiredness, sweating, muscle pains and anxiety can start within 24 hours of your last caffeine intake. These symptoms can last for around 36 hours or more before reducing.

HOW DOES CAFFEINE AFFECT YOUR SLEEP PATTERNS?

Consuming products with high caffeine levels such as energy drinks can affect your growing brain by disrupting the formation of key connections in the brain that occur during your sleep. During adolescence, your brain has the most neural connections it'll ever have during your lifetime. This optimisation occurs during deep sleep.

Key synapses, or the communication gap between the brain cells, extend and others are reduced making the network more efficient and the brain more powerful. For every 10 milligrams of caffeine that a 16-year-old drinks per day, it increases his/her chances of getting less than 8.5 hours of sleep by 12 percent (Lodato et al., 2013). As an adolescent you need 9 to 10 hours of sleep through this rapid growth period. Drinking one 250ml can of Red Bull energy drink a day (which contains 80 milligrams of caffeine) you are 96% more likely to not get the recommended 8.5 hours sleep.

WHAT'S THE RECOMMENDED DAILY CAFFEINE INTAKE FOR YOUNG PEOPLE?

It's recommended that you consume no more than 100mg of caffeine per day which is approximately one can of cola and a small chocolate bar. Remember even this dosage can affect your sleep and possibly increase any anxiety you may be feeling. Some energy drinks contain 160 milligrams or more of caffeine, as well as other products such as guarana, taurine and lots of sugar, so even just one will significantly exceed the recommended amount.

WHAT ARE THE CAFFEINE TRENDS FOR YOUNG PEOPLE?

Trends of caffeine use have changed in recent years for adolescents. Some adolescents are consuming coffee and energy drinks, which contain caffeine, to increase stamina and performance. Other adolescents may be mixing caffeine with other drugs with unpredictable results. For example, mixing caffeine and alcohol can cause an enormous strain on the body. It can mask some effects of alcohol such as increased sleepiness and tiredness which can lead to drinking more and increased risk-taking behaviour. Caffeine and other stimulant drugs, such as prescription ADHD drugs, can also increase the risk of cardiovascular problems.



Caffeine affects everyone differently however if a large amount is consumed it could cause an overdose. Tremors, nausea and vomiting, a very fast and irregular heart rate, confusion, panic attack and seizures are all symptoms of caffeine overdose. If these effects are experienced the situation should be treated as an emergency.



NEED HELP?

If you or anyone you know is experiencing a drug use issue, contact WA's 24hr Drug and Alcohol Support Line.

- Metro (08) 9442 5000
- Country 1800 198 024
- Emergency 000

Live chat with a qualified and experienced drug counsellor is also offered at:
<http://drugaware.com.au>

REFERENCES

Lodato, F., Araujo, J., Barros, H., Lopes, C., Agodi, A., Barchitta, M., & Ramos, E. (2013). Caffeine intake reduces sleep duration in adolescents, *Nutrition Research*, 33 (9), pp. 726-732.

So, what are our three main messages about caffeine?

1. Caffeine is a stimulant drug. This means it speeds up the messages travelling between the brain and the body.
2. Caffeine use can cause dependence and that can affect the heart and nervous system. It may temporarily help you to overcome symptoms such as tiredness and restore alertness, but there are potential harms, especially for young people.
3. It's recommended that you consume no more than 100mg of caffeine per day.