

Health

'People become immune to coffee boost', experts believe

By Michelle Roberts
Health reporter, BBC News

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Using coffee for a pick-me-up may be pointless if you drink it all the time, researchers believe.

Experts say they have discovered that people who drink a lot of caffeine develop a tolerance to its stimulatory effects.

While caffeine can give people a buzz, raising alertness, the effect only works in those unused to the drink, they tell **Neuropsychopharmacology** journal.

They base their assumptions on the results of an experiment that they carried out on 379 volunteers.

Cold turkey

To put coffee to the test, the scientists from the UK and Germany asked all of the trial participants to abstain from the beverage for 16 hours.

Half of these were medium to heavy coffee drinkers who consumed at least one and up to six cups a day, and half were non or low drinkers.

Next, they gave half of the participants a 100mg espresso-sized dose of caffeine, and the other half a placebo shot containing no caffeine.

The medium/high caffeine consumers who received placebo reported a decrease in alertness and an increase in headache, neither of which were reported by those who received caffeine.

However, their post-caffeine levels of alertness were no higher than the non/low consumers who received a placebo.

This, say the investigators, suggests caffeine only brings coffee drinkers back up to baseline or "normal".

But, arguably, if you are used to drinking lots of coffee you may well feel more drowsy if you stop.

The researchers say their findings back the idea that heavy consumers carry on drinking lots of tea and coffee to avoid withdrawal symptoms.

"Although frequent consumers feel alerted by caffeine, especially by their morning tea, coffee or other caffeine-containing drink, evidence suggests that this is actually merely the reversal of the fatiguing effects of acute caffeine withdrawal," said Professor Peter Rogers, of Bristol University, and colleagues.

But Dr Euan Paul of the British Coffee Association said there was an "overwhelming wealth of evidence" showing that caffeine does increase alertness levels by acting as a stimulant on the central nervous system by prompting the release of adrenaline.

"This effect is not only found with subjects in a low state of alertness, like night time shift workers, or those who wake-up early in the morning, but is additionally found in subjects who already have a high state of alertness."

He recommended more research, adding: "Coffee when consumed in moderation, four to five cups per day, is safe and may confer certain health benefits, including contributing to your daily fluid intake."

But he said pregnant women should be mindful of the advice given by the Food Standards Agency and limit caffeine intake to 200mg per day from all sources.