

Bad news for coffee drinkers who get headaches

August 14 2009

High caffeine consumption, more headaches?

People who consume high amounts of caffeine each day are more likely to suffer occasional headaches than those with low caffeine consumption, a team of researchers at the Norwegian University of Science and Technology (NTNU) reports in a study recently published in the *Journal of [Headache Pain](#)*.

But in findings that had “no obvious reason”, the researchers, led by Knut Hagen from NTNU’s Faculty of Medicine, also reported that low caffeine consumption was associated with a greater likelihood of chronic headaches, defined as headaches for 14 or more days each month.

The results are drawn from a large cross-sectional study of 50,483 people who answered a questionnaire about caffeine consumption and headache prevalence as a part of the Nord-Trøndelag Health Survey (HUNT 2), a county-wide health survey conducted in 1995-1997 on a wide range of health topics.

To drink or not to drink

Caffeine is the world’s most commonly consumed stimulant, and has long been known to have both positive and negative effects on headaches. For example, caffeine is a common ingredient in headache analgesics because it can help relieve headaches.

But research worldwide into the relationship between caffeine consumption and headache provides no relief to headache sufferers wondering whether they should drink more coffee or less. Some studies have shown that high caffeine consumption increases the prevalence of headaches and migraines, while other studies have shown no such relationship.

At the same time, headaches are costly to society, in work hours lost, and to individuals themselves. The World Health Organisation ranks migraine 19th in all causes of disability based on a measure called “years lived with disability”, as one example.

The issue is of particular interest in Scandinavia, because Scandinavians are heavy coffee drinkers, consuming on average about 400 mg of caffeine per day. That is roughly twice the average caffeine consumption in other European countries and in the US, and equates to roughly 4 cups of brewed coffee per day, although caffeine levels in coffee vary quite widely.

The power - and limitation -- of numbers

The HUNT study is powerful because it is large-scale, population-based and cross-sectional, but when it comes to headaches, these characteristics make it difficult to establish cause-and-effect. For example, the frequency of non-migraine headache was found by researchers to be 18 per cent more likely in individuals with high caffeine consumption (500 mg per day or more) than among those with the lowest consumption (with mean levels at 125 mg per day).

But does that mean that all that caffeine causes headaches - or that people who are more likely to suffer from headaches drink caffeinated beverages in search of relief? “Since the study is cross-sectional, it cannot be concluded that high caffeine consumption causes infrequent

headache,” the researchers write.

Even more difficult is explaining why chronic headache was less likely among individuals with moderate or high caffeine consumption, the researchers said. One possibility is that caffeine consumption helps change chronic headache into infrequent headache.

Cutting back may help

But it is equally possible that chronic headache sufferers had reduced their intake of caffeine because they had experienced its headache precipitating properties - and that individuals with infrequent headaches were unaware that high caffeine might be the cause.

In an interview, Hagen said that people should consider cutting back on their coffee consumption if headaches were a problem. “People who suffer from headaches should be focused on their [caffeine](#) use, because it can be a cause of their headaches,” he said.

More information: High dietary [caffeine consumption](#) is associated with a modest increase in headache prevalence: results from the Head-HUNT Study. Knut Hagen, Kari Thoresen, Lars Jacob Stovner, John-Anker Zwart. *J. Headache Pain* (2009) 10:153-159. [DOI 10.1007/s10194-009-0114-6](#)

Provided by Norwegian University of Science and Technology

Citation: Bad news for coffee drinkers who get headaches (2009, August 14) retrieved 26 April 2024 from <https://medicalxpress.com/news/2009-08-bad-news-coffee-drinkers-headaches.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private

study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.