

COFFEE BREAK THROUGH

BRINGING RESEARCH EDUCATION ADVICE & KNOWLEDGE

Coffee, Alzheimer's and Parkinson's Disease – the GP perspective, a commentary

by Dr Sally Hope, FRCGP. GP Woodstock, Oxon

Alzheimer's and Parkinson's disease are two of the most common causes of dementia, affecting around 417,000¹ and 120,000² people in the UK respectively. Both diseases represent a huge burden on the NHS, social services and the families of those affected.

Both Alzheimer's and Parkinson's disease are neurodegenerative diseases and interestingly may be associated with a lower incidence amongst coffee drinkers. In fact, rodent experiments have demonstrated that caffeine may improve memory performance³.

Many GPs have fallen into the habit of advising patients to reduce the amount of coffee they drink, however the overwhelming weight of evidence shows that, in moderation, coffee is perfectly safe and can be enjoyed as part of a healthy lifestyle.

Research is constantly adding to our understanding of the underlying neuroscience of these degenerative diseases, but we still have little understanding of the risk factors associated with both diseases. Further studies are needed to determine whether caffeine consumption could have an affect on the development of Alzheimer's disease or age-related cognitive decline, but for the moment we can be confident that moderate coffee consumption of 4 -5 cups of coffee per day is safe for our patients and may even confer certain health benefits^{4,5} including protecting against the risk of developing Alzheimer's and Parkinson's disease.

For pregnant women, guidelines issued by the Food Standards Agency (FSA) recommend a safe upper limit

WELCOME

Welcome to the 19th edition of the Coffee BREAKthrough newsletter. This newsletter is part of an information service brought to you by the British Coffee Association (BCA).

This newsletter contains important information about coffee and health, and has been developed with the help of a board of healthcare professionals who have an interest in nutrition and the role of coffee in the diet.

The views expressed are those of the authors and not necessarily the official views of the BCA.

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www.coffee-break.org

of 200mg caffeine per day from all sources, which includes coffee, tea, cola beverages, energy drinks, chocolate and certain medications⁶.

The case for coffee - a review of the scientific literature

by Helen Hart, Practice Nurse

Alzheimer's Disease

A recent study published by Eskelinen in 2009 found that coffee consumption in midlife may be associated with an inverse risk of developing dementia and Alzheimer's disease in later life. After an average follow-up of 21 years, 1409 individuals (71%) aged 65 to 79 completed the re-examination in 1998. A total of 61 cases were identified as having dementia. Coffee drinkers at midlife had lower risk

of dementia and Alzheimer's later in life compared to those drinking little or no coffee adjusted for demographic, lifestyle, and vascular factors. The lowest risk was found in people who drank 3-5 cups per day⁷.

Parkinson's Disease

A meta-analysis conducted in 2002 by Hernan identified 8 case control studies and 5 cohort studies on the relationship

between coffee consumption and risk of Parkinson's disease. This analysis demonstrated that coffee drinkers had 31% less chance of developing Parkinson's disease than non-coffee drinkers⁸. A further large prospective study published by Hu in 2007 found a reduced risk of Parkinson's disease among habitual coffee drinkers. This study population consisted of 29,335 Finnish subjects in this study⁹.

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Coffee Fact and Coffee Fiction

by Dr Sarah Schenker, Registered Dietician

As health professionals we are quite used to receiving misinformation via the media on some type of food or ingredient and its purported effect on health. But when it comes to coffee even some of our colleagues confuse the fiction with the facts. Here are two of the biggest myths about coffee and the science that dispels them:

Fiction: Coffee is dehydrating

Fact: When one cup of coffee is drunk, the body will retain all or most of the fluid, depending on current hydration status. Caffeine will exert a diuretic effect to varying degrees depending on dosage and caffeine tolerance of the person ingesting it. In regular coffee drinkers, habituation can develop, raising the minimum dose needed to cause mild diuresis. Various studies on caffeine have concluded that doses of more than about 300mg have a mild diuretic effect, whilst doses of less than 250mg do not show any effect¹. Therefore, the dehydrating effects of coffee and other caffeine-containing drinks under normal circumstances are much less than commonly perceived.

A single dose of 300mg of caffeine is equivalent of drinking just over 3 cups of coffee in one go. When drinking coffee in moderation, 4 – 5 cups over the course of the day, the amount of caffeine would be too low to cause diuresis.

In fact, blanket advice to avoid coffee and other caffeine-containing drinks, on the premise that this will prevent dehydration, may do more harm than good. This is because total fluid intake may decrease unless your cup of coffee is replaced with a similar quantity of another fluid, which cannot always be assumed.

Fiction: Coffee is fattening

Fact: Recent reports have highlighted the calorie and fat content of some popular coffee drinks and this has led to the notion that coffee is fattening². In fact, coffee is very low in energy and virtually fat free; one mug of black coffee provides just 17 calories. Even a typical addition of whole milk and a teaspoon of sugar takes the energy content to only 60 kcal.

It is the trend for adding indulgent ingredients to super-sized coffee drinks that has led to the astonishing rise in energy content. With the rising prevalence of obesity in the UK population, it is important to educate our overweight patients that it is not coffee that needs to be avoided but drinks (and foods) containing high amounts of fat and sugar. It is also worth noting that a cup of coffee can also temporarily increase both physical and mental performance which can help people feel motivated to do exercise³.

The recommendation that drinking up to 4-5 cups of coffee a day is a healthy amount has been translated from a body of scientific evidence that considers the consumption of 400mg of caffeine per day as perfectly safe for the majority of people. In pregnancy this amount is reduced to 200mg per day⁴. As part of a healthy balanced diet, a person can safely enjoy up to 4-5 cups per day without any risk to health, and may even benefit from some of the health giving properties of coffee.

It is important that pregnant women moderate their intake, following the guidelines issued by the Food Standards Agency, to 200mg of caffeine per day from all sources.

For more information about coffee and health, please visit www.britishcoffeeassociation.org

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NEWS IN BRIEF

Good Drinks Guide

A study of more than 90,000 people in Japan conducted by M Inoue *et al* (2009) has found that, compared to those who almost never drank coffee, increased coffee consumption was associated with a reduced risk of liver cancer in all participants.

In addition, analysis by Lopez-Garcia *et al* of data from a cohort of 83,076 women without a history of stroke, coronary heart disease, diabetes or cancer showed a woman's risk of having a stroke could be reduced by 19% by drinking two to three cups of coffee per day.

The Daily Express 07/07/09

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