

## Good to the last drop

### New research suggests drinking coffee might actually be good for you

By Judy Foreman | May 11, 2009

Coffee drinkers, rejoice!

The heavenly brew, once deemed harmful to health, is turning out to be, if not quite a health food, at least a low-risk drink, and in many ways a beneficial one. It could protect against diabetes, liver cancer, cirrhosis, and Parkinson's disease.

What happened? New research - lots of it - and the recognition that older, negative studies often failed to tease apart the effects of coffee and those of smoking because so many coffee drinkers were also smokers.

"Coffee was seen as very unhealthy," said Rob van Dam, a coffee researcher and epidemiologist at the Harvard School of Public Health. "Now we have a more balanced view. We're not telling people to drink it for health. But it is a good beverage choice."

As you digest the news on coffee, keep in mind that coffee and caffeine are not the same thing. In fact, "they are vastly different," said coffee researcher Terry Graham, chair of Human Health and Nutritional Sciences at the University of Guelph in Ontario, Canada. One can be good for you; the other, less so.

"Coffee is a complex beverage with hundreds, if not thousands, of bioactive ingredients," he said. "A cup of coffee is 2 percent caffeine, 98 percent other stuff."

Before we rhapsodize further, a few caveats:

Caffeine - whether in coffee, tea, soft drinks, or pills - can make you jittery and anxious and, in some people, can trigger insomnia. Data are mixed on whether pregnant women who consume caffeine are more likely to miscarry. In general, 200 milligrams a day - the amount in one normal-size cup of coffee - is believed safe for pregnant women, said van Dam.

For people with hard-to-control hypertension, a sudden, big dose of caffeine may boost blood pressure because caffeine constricts blood vessels. But decaf is fine. And even caffeinated coffee doesn't increase blood pressure much once you drink it for a week or so, said van Dam.

In fact, the caffeine in coffee seems to have less of an effect on blood pressure than the caffeine

in colas because there are so many other substances in coffee that have the opposite effect physiologically from caffeine.

One final caveat: The new research heralding coffee's health benefits is not perfect. Most of the studies are observational, that is, they followed people over time and correlated health outcomes with coffee drinking - based on people's recollections of how much coffee they consumed. The studies don't prove that coffee was the cause of improved health outcomes.

Still, the sheer volume of the research, and the fact that the conclusions line up so neatly, make it reasonably credible, researchers say.

Now for the good news. Twenty studies worldwide show that coffee, both regular and decaf, lowers the risk for Type 2 diabetes, in some studies by as much as 50 percent. Researchers say that is probably because chlorogenic acid, one of the many ingredients in coffee, slows uptake of glucose (sugar) from the intestines. (Excess sugar in the blood is a hallmark of diabetes.) Chlorogenic acid may also stimulate GLP-1, a chemical that boosts insulin, the hormone that escorts sugar from the blood into cells. Yet another ingredient, trigonelline, a precursor to vitamin B-3, may also help slow glucose absorption.

For both heart disease and stroke, recent studies are reassuring that frequent coffee consumption does not increase risk. In fact, coffee may - repeat, may - slightly reduce the risk of stroke. A study published in March in the journal *Circulation* looked at data on more than 83,000 women over 24 years. It showed that those who drank two to three cups of coffee a day had a 19 percent lower risk of stroke than those who drank almost no coffee. A Finnish study found similar results for men.

For cardiovascular disease other than stroke, there doesn't appear to be a preventive benefit from drinking coffee, but there is also no clearly documented harm; the studies looked at the effect of drinking up to six cups of regular coffee a day.

As for affecting cancer risk, coffee research has come up empty - with one big exception: liver cancer. Research consistently shows a reduction in liver cancer risk with coffee consumption, and there is some, albeit weaker, evidence that it may lower colon cancer risk as well.

Coffee also seems to protect the liver against cirrhosis, especially that caused by alcoholism. It's not clear, either for cancer or cirrhosis, whether it's coffee or caffeine that may be protective.

With Parkinson's disease, a progressive, neurological illness, it's the caffeine, not coffee, that carries the benefit. No one knows for sure why caffeine protects. Several studies show that coffee drinkers, men especially, appear to have half the risk of Parkinson's compared to nondrinkers. Women also get a benefit, but only those who do not use post-menopausal hormones, said Dr. Alberto Ascherio, a professor of epidemiology and nutrition at the Harvard School of Public Health. All it takes for a measurable reduction in Parkinson's risk, he said, is about 150 milligrams a day, the amount in an average cup of coffee.

When it comes to athletic performance, it's clear that it's caffeine, not coffee per se, that delivers

the big boost, said Graham, the researcher from Ontario. In fact, caffeine was once deemed a controlled substance by the International Olympic Committee.

Caffeine is a powerful "ergogenic agent," meaning it promotes the ability of muscles to work. Studies show that caffeine boosts performance in both very short and very long athletic events, said Graham.

It used to be thought that caffeine worked by stimulating the release of sugar (glycogen) in muscles, but recent research suggests it helps muscles release calcium, allowing muscles to contract with more force. It takes only a medium cup of regular coffee for a 130-pound athlete to see a measurable improvement in performance, Graham added.

One last bit of coffee advice: Don't drink unfiltered coffee - the kind that is popular in Scandinavia and is made in French presses. Filtered coffee, which most Americans drink, is much better because the paper filters catch a substance called cafestol, which boosts "bad" cholesterol (LDL). Filtered coffee has no effect on either good or bad cholesterol.

If, despite all this good news, you still worry that you're drinking too much coffee, by all means cut back or quit. But don't go cold turkey. Abrupt caffeine withdrawal can trigger headaches, noted Dr. Alan Leviton, a neurologist at Harvard Medical School who consults for the National Coffee Association, an industry group. So, taper off instead.

On the other hand, if reading this makes you want an extra cup, go for it. And enjoy it - guilt free!

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