Caffeine Concerns for PKD Patients: 'Decaffeinated' Coffee May Be Anything But

October 12, 2006
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Gainesville, FL (October 12, 2006) -

Caffeine-averse patients who think they're getting a free ride by drinking decaf at Starbucks, for instance, should know that it may be laden with the stimulant, claims not withstanding.

Allegedly decaffeinated coffee served at various outlets contained enough caffeine in just two cups to equal levels of the stimulant found in a Coke or Pepsi, reported Bruce Goldberger, Ph.D., of the University of Florida here, and colleagues. Those who consume multiple cups of purportedly caffeine-free java should be aware that their cumulative daily consumption could easily add up to 85 mg of caffeine, the dose found in an average cup of the real stuff, the authors warned in the October issue of the Journal of Analytical Toxicity.

"The finding that decaffeinated coffee contains caffeine has far-reaching clinical consequences," the authors wrote. "Clinicians and patients should be aware that decaffeinated coffee frequently contains caffeine. Ingestion of multiple servings of decaffeinated beverages could result in caffeine doses equivalent to a caffeinated beverage. In addition, one must be mindful of the potential for pharmacological interactions that exist between caffeine and prescription medications."
So-called decaf coffee may also contain just enough of the psychostimulant to foster dependence in caffeine-sensitive people, the authors suggested.

"One has to wonder if decaf coffee has enough, just enough, caffeine to stimulate its own taking," said co-author Mark S. Gold, M.D. "Certainly, large cups and frequent cups of decaf would be expected to promote dependence and should be contraindicated in those whose doctors suggested caffeine-free diets."
In addition to fending off fatigue and sharpening mental acuity, caffeine can increase heart rate, blood pressure, agitation, and anxiety in susceptible individuals.

The FDA suggests that people on bronchodilators, anti-anxiety agents, and quinolone antibiotics lay-off caffeine. The stimulant is also contraindicated in patients with autosomal dominant polycystic kidney disease, because it promotes cyst enlargement, Dr. Goldberger and colleagues noted.
To see whether there was more to decaffeinated coffee than meets the eye, the authors conducted a small two-part study.
With the aid of a chemical testing lab in Severna Park, Md., the authors collected decaf coffee samples from 10 different specialty coffee shops, doughnut shops, fast food outlets, and an instant coffee brand from locations in Severna Park and Bethesda, Md., and Gainesville, Fla.

They then collected decaffeinated espresso and decaffeinated standard coffee samples from a single outlet of Starbucks.
They found that the 10 decaf samples initially collected contained caffeine ranging from 0 mg (Folger's instant decaf coffee crystals) to 13.9 mg/16 ounce servings (from Krispy Kreme, the doughnut chain).

In contrast, caffeinated carbonated sodas contain about 18 mg to 48 mg of caffeine per 12-ounce serving. The authors then turned their attention to the Starbucks samples. They found that the decaf specialty drinks (latte, cappuccino, etc.) containing one 1 oz shot of "decaf" espresso contained between 3.0 and 15.8 mgs of caffeine. For these six samples, the intra-assay mean was 7.0 + 5.7 mg/serving (81.5% coefficient of variation).

The brewed standard decaffeinated coffees, purchased at the same Starbucks on the following day, contained caffeine ranging from 12.0 mg to 13.4 mg per 16-ounce ("grande" or medium-size) serving. For the six samples, the intra-assay mean level of caffeine was 12.9 mg + 0.6 /16 oz. (4.4% coefficient of variation).
"Carefully controlled studies show that caffeine doses as low as about 10 milligrams can produce reliable subjective and behavioral effects in sensitive individuals," commented Roland Griffiths, Ph.D., of Johns Hopkins, who researches the effects of caffeine in humans, but was not involved in the study. "More than 30% can discriminate the subjective effects of 18 mg or less. The present study shows that many decaffeinated coffee drinks deliver caffeine at doses above these levels."
"The important point is that decaffeinated is not the same as caffeine-free," Dr. Griffiths said.