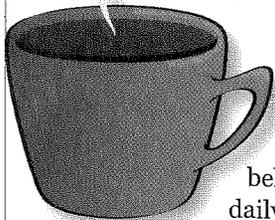


Camping with Joe

By Tom Welch, M.D.

GLOBALLY, caffeine is the most widely consumed psychoactive drug. In vehicles ranging from coffee and tea to energy drinks and soda, its use is ubiquitous; one report cites 90 percent of adults in the world consuming caffeine daily.

Although the ranges are wide, the highest concentration of caffeine in beverages is in coffee, followed by tea and soft drinks. Energy drinks



have an even wider range of content, sometimes exceeding that of coffee. Although the data are "soft," it is generally believed that a daily intake of about 400 mg caffeine is safe. The amount represents about three to four cups of brewed coffee.

The short-term medical effects of caffeine are well known and fairly incontrovertible. It improves alertness and concentration, and increases heart rate. Although it is frequently considered a diuretic (a substance increasing urine production), this effect is actually quite modest; much of the increase in urine output is simply a function of the liquid in which it is consumed. Many studies have confirmed improvement in various measures of exercise capacity following consumption of caffeine.

The long-term ("chronic") effects of caffeine are much more difficult to identify. Indeed, hardly a week goes by in which the media do not report some study showing that caffeine either increases or decreases the risk of conditions ranging from cancer or dementia to heart or Parkinson disease. The problem with all of these studies is the fact that caffeine consumption is so widespread it is difficult to find a true comparison group of individuals who do not use the drug. Some obvious candidates, for example members of the Church of Jesus Christ of Latter-Day Saints, are not appropri-

ate for comparison because of their other admirable health habits, such as avoidance of alcohol and tobacco. Some studies have tried to use "dose response" techniques in an effort to show if increasing caffeine consumption is associated with increasing (or decreasing) risk of specific outcomes. While usually a valid technique, the problem with such studies is their reliance on self-report. How reliable is one's report of his or her average daily caffeine intake over a few decades?

In comparison to the risk of lung cancer with tobacco or cirrhosis with alcohol, none of the purported associations between long-term caffeine use and health are particularly convincing or worrisome. While there may be many reasons to modify one's caffeine intake, concern about health consequences should not be the major one.

While data on chronic health effects is conflicting, it is well known that sudden discontinuation of caffeine intake can produce withdrawal. These symptoms generally begin about twenty-four hours after the last dose, and may last for a week. Headache, muscle aches and pain, and fatigue are the most common manifestations of withdrawal.

What are the implications of caffeine consumption for camping? None of the health effects, such as the mild diuretic property, interfere with outdoor activity. While the benefits for alertness and performance may be helpful, they probably are not important enough for those naive to caffeine to start using it. The most important implication is probably avoiding with-

Sudden discontinuation of caffeine intake can produce withdrawal. Have a reasonable idea of [your] daily consumption, and try to maintain it during a trek. [Otherwise] I suggest a gradual weaning from caffeine for a couple of weeks prior.

drawal. This means having a reasonable idea of one's daily consumption, and trying to maintain it during the trek. I have found this to be a problem in one particular group—those non-coffee drinkers who consume a lot of caffeine-containing soda. I have had teenagers whom I led on treks experience significant caffeine withdrawal symptoms when their daily sodas were not replaced by other beverages. Unless these folks are willing to take up coffee drinking, I suggest a gradual weaning from caffeine for a couple of weeks prior to a trek. ▲

Tom Welch, MD, is a physician at Upstate Medical University in Syracuse and an active member of the Wilderness Medical Society. He is a licensed professional guide and a certifying instructor for the Wilderness Education Association, and has guided groups in the Adirondacks, Montana, and Alaska. More information is available at his website and blog, www.adirondoc.com.