When More Coffee Just Won't Help

By Ruth Kava — June 14, 2016

We just explained the new recommendations on how much sleep children should have each night — including warnings that adults are running around sleep-deprived, too.

But what if the project at work (or school) is due on Tuesday, and here it is Friday and you haven't started it yet? Sure, you're going to skimp on sleep over that weekend, but a quart or two of caffeinated coffee or some of those caffeine pills will keep you going until you've met the deadline. Right? Maybe not so much, if a recent study pans out.

Dr. Tracy Jill Doty, research scientist at Walter Reed Army Institute of Research and colleagues investigated just how long you can depend on caffeine to keep you functioning on less than optimal amounts of sleep. Forty-eight individuals took part in their sleep-deprivation/caffeine study, which was placebo-controlled and double-blind.

The participants were restricted to five hours of sleep per night for five days. During their awake periods they were given either 200 milligrams of caffeine in pill form, or placebo pills, twice each day. For comparison purposes, an 8 oz. cup of brewed coffee can contain anywhere from 95-200 milligrams of caffeine. Each day the sleep-deprived subjects' cognitive abilities were assessed several times with a battery of tests.

Compared to placebo, the caffeine pills improved cognitive function in these sleep-deprived people — but only for two days. After that, the effect was essentially nil. This was, of course, a small study — but it was well-designed and carried out properly. It must be considered preliminary, since it was presented at a meeting of the 2016 annual meeting of the Associated Professional Sleep Societies, and has not yet been published in a peer-reviewed journal.

The take-home message is that caffeine will counteract the cognitive effects of sleep deprivation, but not indefinitely. So better get a head start on that long project, and don't expect the coffee to help long term.