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DAKOTA DIABETES  
COALITION



Dr. Johnson is a family practice doctor in Grand Forks with a special interest in diabetes -- and a special knack for writing. As a member of the Dakota Diabetes Coalition, he has generously made himself available to answer questions through our listserv. If you have comments, or questions for Dr. Johnson to address in future columns, please contact [gailhand@q.com](mailto:gailhand@q.com)

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## Coffee and diabetes

# Java in the news without all the jive

Does coffee prevent -- or increase -- the incidence of type 2 diabetes? Is it caffeine, or other components of coffee that matter? What about other caffeinated beverages, such as tea? Do they have any effect on diabetes? These questions regarding dietary intake of caffeine are addressed in recent literature, and to date, some of the data is conflicting.

By way of explanation, some of the conflict arises from what is being measured in any individual study. For example, a recent University of Minnesota study, published in the American Journal of Clinical Nutrition, showed a 30% reduction in the incidence of type 2 diabetes in a Chinese population residing in Singapore who consumed 4 or more cups of caffeinated coffee daily. Findings in the same population showed a 14% reduction in type 2 diabetes in those who consumed black tea. Similarly, a prospective study published by Smith and

colleagues in Diabetes Care in 2006 showed reductions in the incidence of type 2 diabetes in both past and present coffee drinkers.

A protective effect has also been noted with decaffeinated coffee, which suggests that components of coffee other than caffeine may be responsible for the protective effect.

Conversely, other studies have shown increases in insulin resistance and glucose intolerance with coffee or caffeine consumption prior to glucose tolerance tests or with meals of varying glycemic indices.

So what should we tell our patients when counseling them on the use of caffeine or coffee in their meal plans? The studies showing decreased incidence of type 2 diabetes in coffee drinkers do not control for when the coffee is consumed, and in one case, whether caffeine is of any benefit--the effect was noted with decaffeinated coffee as well. Coffee may have different degrees of benefit when consumed in relation to meal intake. For example, it may impair glucose tolerance when consumed at meal time, but at other times, it may not have this effect, or may be beneficial.

Further study is likely needed to ascertain benefit or risk from other sources of caffeine, and from other components in coffee. At present, it is probably reasonable to counsel patients that moderate coffee consumption may be of benefit, and individual patients will need to monitor their personal blood glucose response to caffeine intake.

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