



# Clinical Digest

## RHEUMATOLOGY

### Soft Drinks and Gout Risk

The more sugar-sweetened soft drinks you drink, the higher your risk of gout, say researchers from Vancouver General Hospital, British Columbia, Canada and Brigham and Women's Hospital, Boston, MA. In their 12-year follow-up of 46,393 men from the health professionals follow-up study, the risk of incident gout was 29% higher, 45% higher, and 85% higher for men who consumed five to six servings of sugar-sweetened soft drinks per week, one serving per day, and two or more servings per day, respectively, than men who consumed less than one serving per month. The researchers adjusted for age, total energy and alcohol intake, body mass index, and other risk factors for gout.

The risk wasn't limited to sugary drinks—fructose-rich foods (such as apples and oranges) also carried a high risk. The researchers found that the risk of gout for those men with the highest fructose intake was comparable to that seen with a daily alcohol intake of 30 to 50 g.

The researchers point out that fructose, just like ethanol, increases the degradation of adenosine triphosphate to adenosine monophosphate, a precursor of uric acid. Minutes after an infusion of fructose, uric acid concentrations in plasma and urine rise. Fructose also might indirectly increase the level of serum uric acid and the risk of gout by increasing insulin resistance and circulating insulin levels. The researchers cite experimental studies that suggest higher fructose intake contributes to insulin resistance, impaired glucose tolerance, and hyperinsulinemia.

Source: *BMJ*. 2008;336(7639):309–312. doi:10.1136/bmj.39449.819271.BE.

## PREVENTIVE MEDICINE

### Preventing Diabetes in Urban Native Americans

Diabetes education and prevention programs for American Indians have tended to focus on rural dwelling members of a specific tribal nation, say University of New Mexico, Albuquerque researchers. They created a more flexible prevention program aimed at women who “work alongside urban residents of other cultures.”

The researchers revised the cultural component of a program targeted at rural American Indian adults with type 2 diabetes. The final intervention consisted of five monthly group sessions that were facilitated by two American Indian health educators. Cultural content included didactic and discussion support of American Indian physical activities and dietary cultural strengths and examples of diabetes prevention approaches by tribal nations across the country. In the sessions, participants also learned how to start an exercise program, read food labels, choose healthier foods, prepare meals that are lower in saturated fats and higher in fruit and vegetable content, and recognize and manage stress.

For the study, 200 female volunteers—who were aged between 18 and 40 years, self-identified as American Indian, were not pregnant, and did not have type 2 diabetes—were assigned randomly to the intervention or control group. Although the control group did not attend the group sessions, the researchers offered a delayed intervention to these women to improve recruitment and demonstrate their commitment to the community beyond the research study. During the study, the control participants received mail-

ings of a Native American health magazine, clinic visit reminders, and phone calls to schedule clinic visits.

Perhaps in part because of that attention to both groups, each group saw beneficial changes. The women in both groups lost weight; lowered their cholesterol; cut back on television watching; and reduced their intake of fats, sugar, and sweetened beverages. Women in the intervention group also increased their self-reported intake of vegetables and fruit (and maintained that change for a year after the program), while control participants' vegetable and fruit intake remained essentially unchanged. One month after the program, 49% of the intervention group and 34% of the control group had lost a mean of 2% of body weight. Thirteen months after the program, however, there was no difference between the groups in the percentage of women who lost weight or the mean percentage of weight lost.

The researchers say their program was “low intensity” to help reduce costs and meet the needs of a diverse population that, while at higher risk for diabetes due to genetics, may not have impaired glucose tolerance. Therefore, they say it isn't surprising that the impact of their intervention was less than that observed in trials of higher intensity interventions. But their findings—including the improvements seen in the control group—suggest that intense interventions may not always be necessary to achieve positive change. For some patients, simply attending a clinic visit every six months and getting feedback about body weight and general health could be enough to lower diabetes risk. ●

Source: *Am J Prevent Med*. 2008;34(3):192–201. doi:10.1016/j.amepre.2007.11.014.