

Alcohol use and smoking are associated with headaches in high schoolers

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A novel study by German researchers reported that alcohol consumption and cigarette smoking were associated with increased migraines and tension-type headaches (TTH) in high school students. Coffee drinking and physical inactivity were associated specifically with migraines. Results of this study, the first to investigate modifiable risk factors for different types of headaches in a youth population, appear online early in *Headache*, a journal published by Wiley-Blackwell on behalf of the American Headache Society.

Prior studies have indicated that [headache](#) is one of the most frequently reported health complaints in adolescents with 5%-15% of this age group suffering from [migraine](#) and 15%-25% with TTH. Modifiable risk factors, such as alcohol use, cigarette smoking and coffee drinking which have been associated with headache in adults, have not been fully explored in a youth population.

Astrid Milde-Busch, Ph.D. and colleagues at the Ludwig-Maximilians-University in Munich, Germany invited 1,260 students in grades 10 and 11 (aged 14-20) from eleven area public schools to participate in the study. The students were asked to fill out a questionnaire on headache and associated [lifestyle factors](#). Students were asked: 'Did you have headache during the last seven days/three months/six months?' and were classified as headache sufferers if the response was positive. Furthermore, migraine and TTH were differentiated by questions regarding headache characteristics and symptoms. The questionnaire also inquired about diet and lifestyle (e.g. 'Do you daily have breakfast

before you go to school?'; 'How much beer, wine and cocktails do you normally drink?'; 'How much coffee do you normally drink?'; 'Do you smoke?').

Research results show 83.1% of students reported headache at least once during the previous six months with 10.2% reporting migraine; 48.7% citing TTH; and 19.8% having combined migraine plus TTH. For diet, 28.4% of students never had breakfast; 16.5% did not eat a daily break meal (snack); and only 24.0% had a daily warm lunch. Researchers found that 22.3% of students consumed less than 1 liter (4.23 8 ounce cups) of non-alcoholic drinks per day. Alcohol consumption, however, was widespread among students in the study with 38.5%, 18.6%, and 25.3% drinking beer, wine, and cocktails at least once per week, respectively. Results also showed that 73.3% of participants reported never smoking and 43.4% students noted that they did not drink coffee.

The authors found that a high consumption of alcoholic drinks and coffee, smoking, and lack of physical activity were significantly associated with migraine plus TTH episodes. There was a significant association of coffee drinking and [physical inactivity](#) with migraine. "Our study confirms, adolescents with any type of headache might benefit from regular physical activity and low consumption of alcoholic drinks," commented Dr. Milde-Busch. "In teens suffering from migraine a low coffee consumption should also be suggested." Skipping meals or insufficient fluid intake was not associated with any type of headache.

According to the Centers for Disease Control and Prevention (CDC), 75% of [high school students](#) in the U.S. have had one or more alcoholic drinks during their lifetime (2007). A 2004 report by the World Health Organization (WHO) notes that [alcohol consumption](#) by those under 20 varies by country and "a trend of increased drinking to intoxication." Cigarette smoking is another modifiable risk factor in which youths engage and a 2002 WHO report estimated about 1 in every 5 teens

worldwide (aged 13-14) smoke. "A great number of teens are engaging in activities such as drinking and smoking which can trigger headaches," concluded Dr. Milde-Busch. "Intervention studies that assess psycho-education programs to educate youths about headache-triggering behaviors are recommended."

More information: Article: "Associations of Diet and Lifestyle with Headache in High-School Students." Astrid Milde-Busch, Astrid Blaschek, Ingo Borggräfe, Florian Heinen, Andreas Straube, and Rüdiger von Kries. Headache; Published Online: June 07, 2010, [DOI:10.1111/j.1526-4610.2010.01706.x](https://doi.org/10.1111/j.1526-4610.2010.01706.x)

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