

Study redefines roles of alcohol, smoking in risk for pancreatitis

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Although alcohol consumption is known to be associated with chronic pancreatitis, new evidence indicates that a threshold of five or more drinks per day is required to significantly raise risk; however, most patients with chronic pancreatitis do not drink this amount, according to a report in the June 8 issue of *Archives of Internal Medicine*, one of the JAMA/Archives journals. In addition, smoking is an independent, dose-dependent risk factor.

"Chronic pancreatitis is an inflammatory syndrome of the pancreas characterized by progressive parenchymal fibrosis [scarring of the organ], maldigestion, diabetes mellitus and pain," the authors write as background information in the article. "Recurrent acute pancreatitis [acute pancreatitis that occurs on two or more occasions and may become chronic] and chronic pancreatitis are associated with [alcohol consumption](#) and cigarette [smoking](#). The etiology of recurrent acute pancreatitis and chronic pancreatitis is complex, and effects of alcohol and smoking may be limited to specific patient subsets."

Dhiraj Yadav, M.D., M.P.H., of the University of Pittsburgh, and colleagues in the North American Pancreatic Study Group examined the current prevalence of alcohol use and smoking and their association with pancreatitis in patients evaluated at U.S. referral centers. Between 2000 and 2006, 1,000 patients (540 with chronic pancreatitis and 460 with recurrent acute pancreatitis) were enrolled in the North American Pancreatitis Study 2 (NAPS2), as were 695 healthy controls. All participants (average age 49.7) reported their alcohol consumption and

smoking habits.

About one-fourth of both controls and patients were lifetime abstainers. Among those with chronic pancreatitis, 38.4 percent of men and 11 percent of women were very heavy drinkers (five or more drinks per day), compared with 16.9 percent of men and 5.5 percent of women with recurrent acute pancreatitis and 10 percent of men and 3.6 percent of women in the control group.

"We found the threshold drinking amount for association between alcohol use and chronic pancreatitis to be five or more drinks per day," the authors write. Compared with abstaining and light drinking (half a drink per day or less), very heavy drinking was associated with approximately triple the odds of developing chronic pancreatitis. However, fewer patients with chronic pancreatitis than expected (about one-fourth) drank at this level. Other factors, including genetic mutations, also contribute to pancreatitis risk.

Although many heavy drinkers also smoked, cigarette use was an independent risk factor for both chronic pancreatitis and recurrent acute pancreatitis. Among smokers, those with chronic pancreatitis tended to smoke more (26.6 pack-years, vs. 19.5 pack-years for those with recurrent acute pancreatitis and 16.2 pack-years for controls; one pack-year is about 7,300 cigarettes smoked) and had smoked for a longer period of time (a median or midpoint of 30.5 years, vs. 21.9 years for controls and 22.7 years for those with recurrent acute pancreatitis), suggesting a dose-dependent effect.

"In conclusion, only very heavy alcohol consumption and cigarette smoking are independent [risk factors](#) for chronic pancreatitis," the authors write. "Risk for chronic pancreatitis from alcohol consumption occurs above a threshold level, while risk due to smoking is dose dependent. Drinking levels in subjects with recurrent acute pancreatitis

are similar to controls. Only a minority of patients with recurrent acute pancreatitis and chronic pancreatitis currently seen at secondary or tertiary U.S. centers could be categorized as very heavy drinkers."

Source: JAMA and Archives Journals ([news](#) : [web](#))

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