Montreal, August 27, 2010 – While some teenagers may puff on cigarettes to 'self-medicate' against the blues, scientists at the University of Toronto and the University of Montreal have found that smoking may actually increase depressive symptoms in some adolescents. Published in the journal Addictive Behaviors, the findings are part of the long-term Nicotine Dependence in Teens (NDIT) study based at the University of Montreal Hospital Research Centre.

"This observational study is one of the few to examine the perceived emotional benefits of smoking among adolescents," says lead author Michael Chaiton, a research associate at the Ontario Tobacco Research Unit of the University of Toronto. "Although cigarettes may appear to have self-medicating effects or to improve mood, in the long term we found teens who started to smoke reported higher depressive symptoms."

As part of the study, some 662 high school teenagers completed up to 20 questionnaires from grades 7 to 11 about their use of cigarettes to affect mood. Secondary schools were selected to provide a mix of French and English participants, urban and rural schools, and schools located in high, moderate and low socioeconomic neighbourhoods.

Participants were divided into three groups: never smokers; smokers who did not use cigarettes to self-medicate, improve mood or physical state; smokers who used cigarettes to self-medicate. Depressive symptoms were measured using a scale that asked how often participants felt too tired to do things; had
trouble going to sleep or staying asleep; felt unhappy, sad, or depressed; felt hopeless about the future; felt nervous or tense; and worried too much about things.

"Smokers who used cigarettes as mood enhancers had higher risks of elevated depressive symptoms than teens who had never smoked," says coauthor Jennifer O'Loughlin, a professor at the University of Montreal Department of Social and Preventive Medicine and scientist at the of the University of Montreal Hospital Research Centre. "Our study found that adolescent smokers who reported emotional benefits from smoking are at higher risk of developing depressive symptoms."

The association between depression and smoking exists principally among teens that use cigarettes to feel better. "It's important to emphasize that depressive symptom scores were higher among teenagers who reported emotional benefits from smoking after they began to smoke," says Dr. Chaiton.

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**About the study:**

The paper, "Use of cigarettes to improve affect and depressive symptoms in a longitudinal study of adolescents," published in the journal Addictive Behaviors, was authored by Michael Chaiton, Joanna Cohen and Juergen Rehm of the University of Toronto and Jennifer O'Loughlin of the University of Montreal.

**Partners in research:**

This study was supported by the Canadian Cancer Society.

**On the Web:**


University of Toronto: [www.utoronto.ca](http://www.utoronto.ca)

Ontario Tobacco Research Unit: [www.otru.org](http://www.otru.org)

University of Montreal: [www.umontreal.ca](http://www.umontreal.ca)

University of Montreal Hospital Research Centre: [www.chumtl.qc.ca/crchum.en.html](http://www.chumtl.qc.ca/crchum.en.html)

NDIT study: [http://ndit.crchum.qc.ca/](http://ndit.crchum.qc.ca/)