

# Codeine use and accident risk

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The risk of being involved in a traffic accident with personal injury is significantly higher among codeine users than non-users. However, sporadic or moderate use of codeine alone does not carry an increased risk, according to a newly published study from the Norwegian Institute of Public Health.

Codeine and tramadol are painkillers in the opiate group, used for mild to moderate pain. In Norway, [codeine](#) is included in Paralgin forte and Pinex forte, and tramadol, amongst others, in Nobligan. Norway has a higher consumption of codeine preparations than other European countries.

Earlier studies have given conflicting results when evaluating [traffic accident](#) risk linked to the use of codeine and tramadol. In this new study from the Norwegian Institute of Public Health, anonymised data from the Norwegian Prescription Database and [Road Traffic Accident Register](#) was used to study whether codeine- or tramadol users have an increased risk of being involved in a traffic accident with [personal injury](#).

During the 33 months of the study, 181 road traffic accidents were registered with personal injury where the driver had been exposed to codeine and 20 after exposure to tramadol. "Exposure" is defined as the first 7 days after the dispensing of a prescription for a codeine- or tramadol preparation.

The study showed that the risk of being involved in a road traffic

accident with personal injury was twice as high in the period after having a prescription for codeine dispensed. For those who had used more than approximately 400 tablets per year, the risk of being involved in a traffic accident was 3 times as large. When the use of other potential impairing medicines was excluded, the risk of accident sank significantly. For sporadic codeine users there was no increased risk of accident. There was not a significantly higher risk for tramadol.

- We have previously seen that large users of codeine preparations often use benzodiazepines (anxiolytics- and [hypnotics](#)) or carisoprodol (muscle relaxants /painkillers) in addition. This is an important contributory factor when evaluating the accident risk, says the study's leader Liliana Bachs.

98 of the 181 drivers exposed to codeine who were included in the study had also been dispensed other medicines with abuse potential in the week prior to the accident.

- One can conclude that sporadic or moderate use of codeine alone to a small degree increases the chance of being involved in accidents with personal injury. Simultaneous use of benzodiazepines or carisoprodol gives a clear increase in the risk of accidents, explains Bachs.

### More information:

#### Reference:

The Risk of Motor Vehicle Accidents Involving Drivers With Prescriptions for Codeine or Tramadol. Bachs L, Engeland A, Mørland J, Skurtveit S. Clin Pharmacol Ther. 2009 Mar 11. [Epub ahead of print]

Related reference: Repeated dispensing of codeine is associated with high consumption of benzodiazepines. Bachs LC, Bramness JG,

Engeland A, Skurtveit S. Norsk Epidemiologi 2008; 18 (2): 185-190 (in English).

Source: Norwegian Institute of Public Health

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