

# Codeine

The Difference is Research

## What is codeine?

Codeine is an ingredient contained in a number of prescription and over the counter pain medicines.

Codeine is considered a 'weak' opioid pain medication, and is in the same family of medicines as opioid pain medications and drugs such as morphine, oxycodone and heroin. In the body codeine is converted into morphine, which is thought to be responsible for almost all of the pain relieving effects of codeine.

## How well does codeine work for pain?

Most codeine products sold without a prescription have limited evidence of effectiveness for pain.

Cochrane reviews have underscored the lack of data to support low dose codeine (<10mg) and limited data to support medium dose (10-20mg) codeine for analgesic efficiency, with combined ibuprofen (400mg) and codeine (25.6 to 60mg) incurring good analgesic efficiency<sup>1</sup>.

A review of studies examining of opioids for osteoarthritis of the knee or hip reported that modest benefits of codeine were outweighed by adverse consequences<sup>2</sup>.

## What is the evidence for concern?

In the case of treatment seeking, a case series conducted in NSW by the National Drug and Alcohol Research Centre found that majority of drug and alcohol treatment cases involving codeine reported use of over-the-counter codeine products<sup>3</sup>.

A follow up study of more comprehensive national data found that treatment admissions do not currently differentiate between prescribed and over the counter codeine, though the study found clear increases in codeine related treatment presentations<sup>4</sup>. Cases of serious harm have been associated with codeine products in Australia<sup>5</sup>.



## Seeking treatment for codeine dependence

- **The number of Australians receiving treatment for dependence on codeine trebled** in the nine years from 2002 new research from the National Drug and Alcohol Research Centre at UNSW has shown<sup>4</sup>.
- **One in five people in treatment for opioid dependence were being treated for dependence on pharmaceutical opioids** – most commonly morphine, codeine, oxycodone and fentanyl. Although heroin is still the principal drug of concern for people in treatment for opioid dependence, prescription opioids are far more common than in 2002 when the vast majority of people (93 per cent) were being treated for heroin dependence.
- **Women made up the majority of people in treatment for codeine dependence** in 2002, although the number of men in treatment for codeine dependence is increasing over time.

Dr Suzanne Nielsen, a senior researcher at the National Drug and Alcohol Research Centre at UNSW said that compared with people in treatment for heroin dependence the people with codeine dependence are older, more likely to be employed, more likely to be female and more likely to have a history to chronic pain.'

"This can result in barriers to treatment access. In particular some may be reluctant to come forward because of the stigma associated with traditional treatment for heroin dependence," Dr Nielsen said.

In a study of people entering treatment for codeine dependence in NSW, most people reported that they started using codeine to treat their pain, prior to developing a dependence<sup>3</sup>.

## References

1. Toms L, Derry S, Moore RA, McQuay HJ. Single dose oral paracetamol (acetaminophen) with codeine for postoperative pain in adults. *Cochrane Database Syst Rev* 2009; (1): CD001547.
2. Nuesch E, Rutjes AW, Husni E, Welch V, Juni P. Oral or transdermal opioids for osteoarthritis of the knee or hip. *Cochrane Database Syst Rev* 2009; (4): CD003115.
3. Nielsen S, Murnion B, Dunlop A, et al. Comparing treatment-seeking codeine users and strong opioid users: Findings from a novel case series. *Drug Alcohol Rev* 2015; 34(3): 304-11.
4. Nielsen S, Roxburgh A, Bruno R, Lintzeris N, Jefferson A, Degenhardt L. Changes in non-opioid substitution treatment episodes for pharmaceutical opioids and heroin from 2002 to 2011. *Drug Alcohol Depend* 2015; 149: 212-9.
5. Frei M, Nielsen S, Tobin C, Dobbin M. Serious morbidity associated with misuse of over-the-counter codeine-ibuprofen analgesics: a series of 27 cases. *Medical Journal of Australia* 2010; 193(5): 294-6.