

# Opioid use after motor vehicle crashes – can this treatment be justified for chronic pain?

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# Introduction

- What is pain?
- What is chronic pain (and what is acute pain)?
- How common is chronic pain?
- Why the difference between “chronic non cancer pain” and “chronic cancer pain”?
- What are opioids?
- Why concerns about opioid use in chronic non cancer pain?
- What can be done about opioid use in chronic non cancer pain

# What is pain?

- International Association for the Study of Pain (IASP), revised definition (July 2020)
- “An unpleasant sensory and emotional experience associated with, or resembling that associated with, actual or potential tissue damage”
  - “is expanded upon by the addition of six key Notes and the etymology of the word pain for further valuable context.”
    - Pain is always a personal experience that is influenced to varying degrees by biological, psychological, and social factors.
    - Pain and nociception are different phenomena. Pain cannot be inferred solely from activity in sensory neurons.
    - Through their life experiences, individuals learn the concept of pain.
    - A person’s report of an experience as pain should be respected.
    - Although pain usually serves an adaptive role, it may have adverse effects on function and social and psychological well-being.
    - Verbal description is only one of several behaviors to express pain; inability to communicate does not negate the possibility that a human or a nonhuman animal experiences pain”.

# What is chronic pain (and what is acute pain)?

- **Chronic pain is defined as pain that lasts or recurs for more than three months.**
- Chronic secondary pain is organized into the following six categories:
  - **Chronic cancer-related pain** is chronic pain that is due to cancer or its treatment, such as chemotherapy.
  - **Chronic postsurgical or post-traumatic pain** is chronic pain that develops or increases in intensity after a tissue trauma (surgical or accidental) and persists beyond three months.
  - **Chronic neuropathic pain** is chronic pain caused by a lesion or disease of the somatosensory nervous system. Peripheral and central neuropathic pain are classified here.
  - **Chronic secondary headache or orofacial pain** contains the chronic forms of symptomatic headaches.
  - **Chronic secondary visceral pain** is chronic pain secondary to an underlying condition originating from internal organs of the head or neck region or of the thoracic, abdominal or pelvic regions. It can be caused by persistent inflammation, vascular mechanisms or mechanical factors.
  - **Chronic secondary musculoskeletal pain** is chronic pain in bones, joint and tendons arising from an underlying disease classified elsewhere. It can be due to persistent inflammation, associated with structural changes or caused by altered biomechanical function due to diseases of the nervous system.

# How common is chronic pain in Australia?

- Females 20%, Males 17%
- Prevalence of interference with activities of daily living – females 13.5%, males 11%
- Strongly associated with social disadvantage

Blyth et al 2001



Pain 89 (2001) 127–134

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**PAIN**

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[www.elsevier.nl/locate/pain](http://www.elsevier.nl/locate/pain)

## Chronic pain in Australia: a prevalence study

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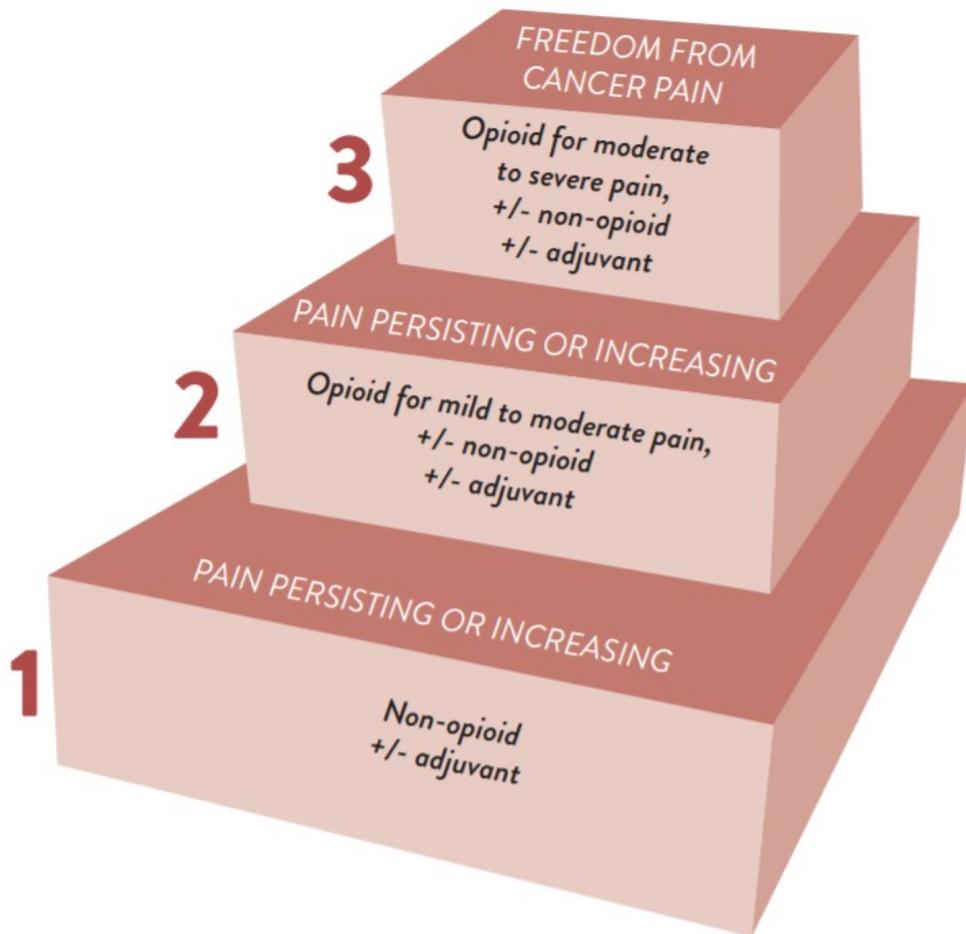
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# Why the difference between “chronic non cancer pain” and “chronic cancer pain”?

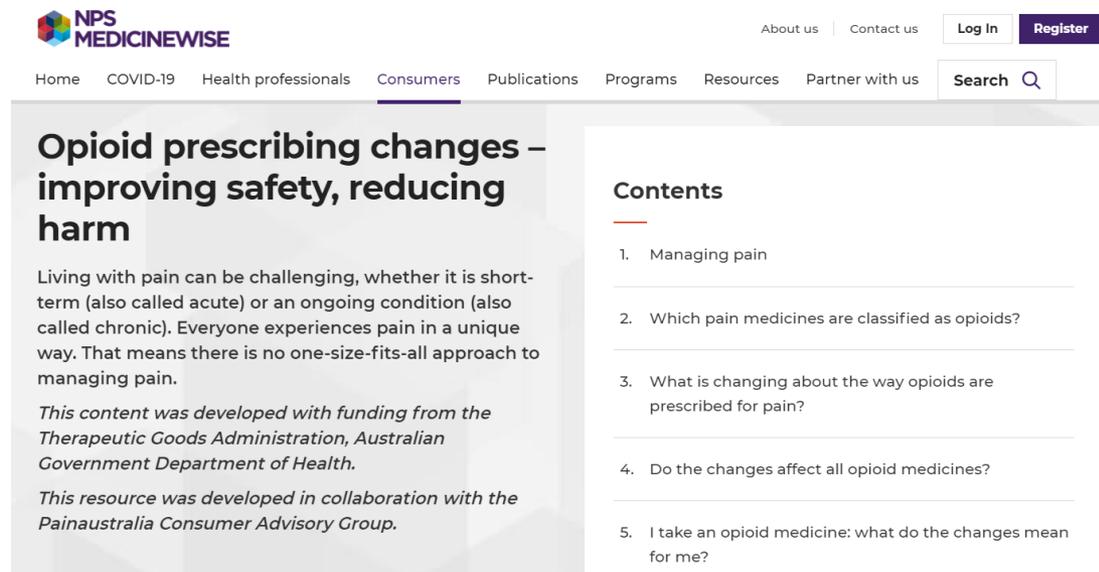


- World Health Organisation “Pain ladder” for cancer pain since 1980s
- Evidence is that opioids are effective in cancer pain

(WHO guidelines for the pharmacological and radiotherapeutic management of cancer pain in adults and adolescents 2018. ISBN 978-92-4-155039-0)

# Why the difference between “chronic non cancer pain” and “chronic cancer pain”?

- Opioids in chronic non cancer pain always controversial
- Opioids often needed in acute pain – trauma or with surgery
- Opioids in acute pain are effective
- No strong evidence that opioids are effective in chronic non cancer pain
- Opioids cause major harms with long term use



The screenshot shows the NPS Medicinewise website. The header includes the NPS Medicinewise logo, navigation links (About us, Contact us, Log In, Register), and a search bar. The main content area features a title "Opioid prescribing changes – improving safety, reducing harm" and a paragraph explaining that living with pain can be challenging and that there is no one-size-fits-all approach. Below this, it states that the content was developed with funding from the Therapeutic Goods Administration, Australian Government Department of Health, and in collaboration with the PainAustralia Consumer Advisory Group. A table of contents on the right lists five topics: 1. Managing pain, 2. Which pain medicines are classified as opioids?, 3. What is changing about the way opioids are prescribed for pain?, 4. Do the changes affect all opioid medicines?, and 5. I take an opioid medicine: what do the changes mean for me?

<https://www.nps.org.au/consumers/>

# What are opioids?

<https://www.nps.org.au/consumers/>

## Which pain medicines are classified as opioids?

Opioid medicines are divided into two groups:

- ▶ opiates, produced from the opium poppy plant, (including the illegal opioid heroin), and
- ▶ man-made substances, synthesised in a laboratory.

Opioids work on the central nervous system to slow down nerve signals between the brain and the body. This can reduce feelings of pain, but it can also produce adverse effects, ranging from constipation to dangerous slowing down of a person's breathing.

**Opioid medicines can be used to reduce some types of pain, such as acute pain and ongoing pain caused by cancer. However, their role in the management of chronic non-cancer pain is limited.**

Commonly used opioid medicines contain active ingredients such as buprenorphine, codeine, fentanyl, hydromorphone, methadone, morphine, oxycodone, tapentadol and tramadol.

1. Managing pain

2. Which pain medicines are classified as opioids?

3. What is changing about the way opioids are prescribed for pain?

4. Do the changes affect all opioid medicines?

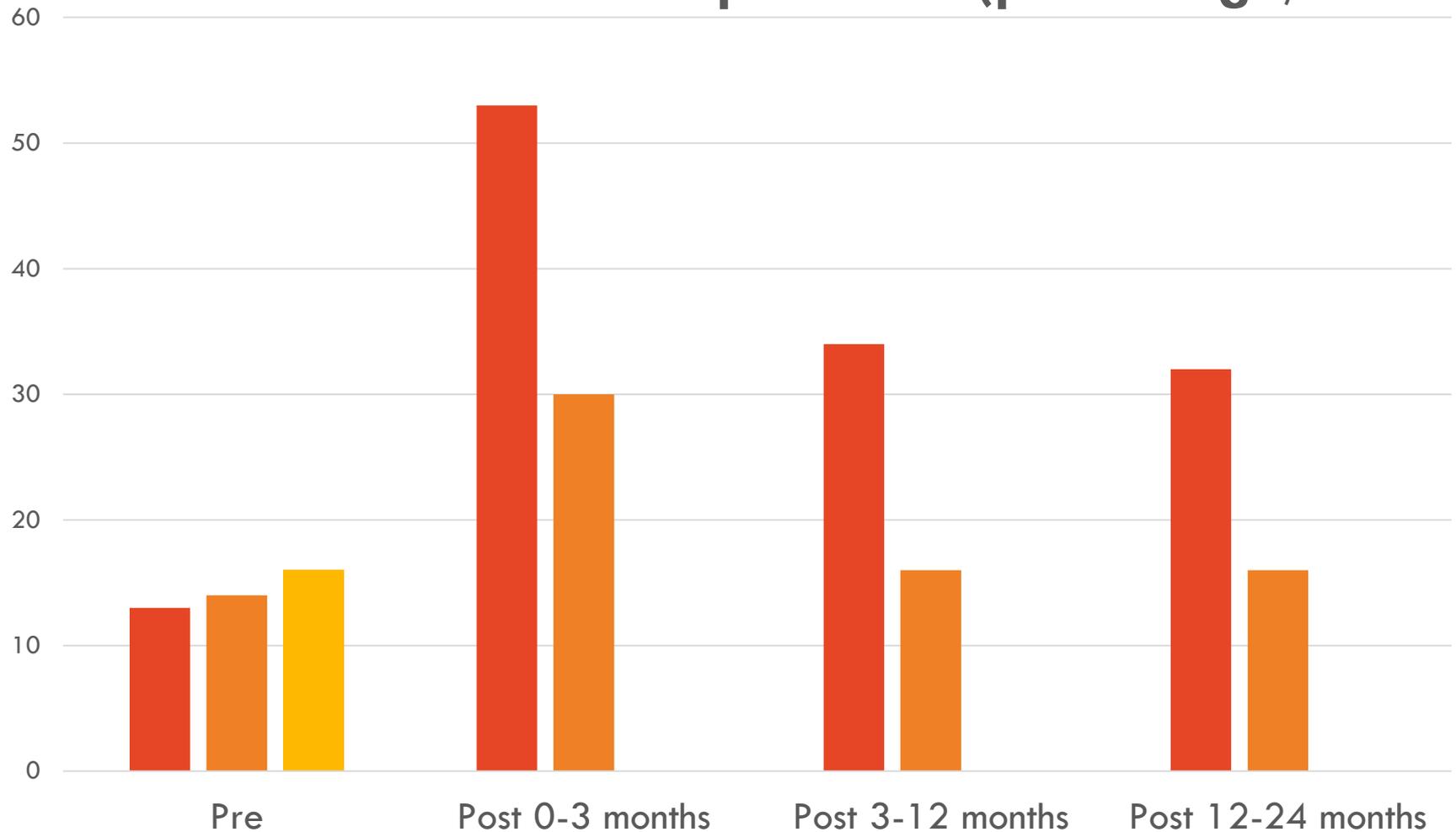
5. I take an opioid medicine: what do the changes mean for me?

6. How do I manage my pain now?

7. I have chronic non-cancer pain. What should I do?

# What did we find out about opioids in the FISH study?

## Prevalence of opioid use (percentage)



# What did we find out about opioids in the FISH study?

## Predictors of opioid use: adjusted model

	Outcome	
	Any opioid prescription 3 to 12 months after the accident	Any opioid prescription 12 to 24 months after the accident
	OR (95% CI) [p value]	OR (95% CI) [p value]
<b>Any opioid prescription before the accident (0-12 months before)</b>	4.7 (2.4, 9.1) [<0.0001]	3.0 (1.5, 5.9) [0.002]
<b>Baseline pain severity</b>	1.2 (1.08, 1.4) [0.001]	1.3 (1.1, 1.5) [<0.0001]
<b>Any CTP† claim</b>	<b>2.3 (1.2, 4.3) [0.009]</b>	1.7 (0.89, 3.2) [0.1]

- Opioid use before MVC strongly associated with opioid use after
- Higher baseline pain is associated with opioid use after
- CTP claim is associated with greater opioid use from 3 to 12 months after injury

# What can be done about opioid use in chronic non cancer pain?



The TGA has changed the regulations around prescribing of opioid medicines, in order to minimise the harms these medicines cause to Australians each year. In response to these changes, we are extending the activities and resources we provide to support the appropriate use of opioids in chronic non-cancer pain.

<http://link.nps.org.au/m/1/56989176/02-b20212-127459e9cfe740c28af617ffd921db26/2/25/6791b336-1a1f-4251-a489-4f59a8276d61>

You may be interested in the following resources and activities for health professionals and consumers currently available from NPS MedicineWise:

- Educational visit – [Opioids and the bigger picture when treating chronic pain](#)
- RADAR – [Opioids: New and amended PBS listings](#)
- Clinical e-Audit – [Opioids: redefining 'doing well' on opioids](#)
- Patient resource – [Opioids information video](#)
- Patient resource – [Opioid prescribing changes: improving safety, reducing harm](#)

The **Opioids, chronic pain and the bigger picture** program is funded by the Australian Government Department of Health. Further resources to support TGA reforms are funded by the Therapeutic Goods Administration.

## Take home messages

- Opioid use is common after motor vehicle crashes (about 1 in 3 injured people use opioids)
- Short term opioid use is justified in some people with severe injuries
- Try not to start opioids after mild to moderate injury
- Recognise pain is a biopsychosocial experience
- Take a broad perspective to pain management in the subacute (1 to 3 months after injury) phase
- Aim **not** to use opioids in the chronic phase ( $> 3$  months) after injury
- Work with people with chronic non cancer pain to slowly reduce opioids

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