

Improving Peri-Operative Pain Management

Transforming Pain Services in Fraser Health

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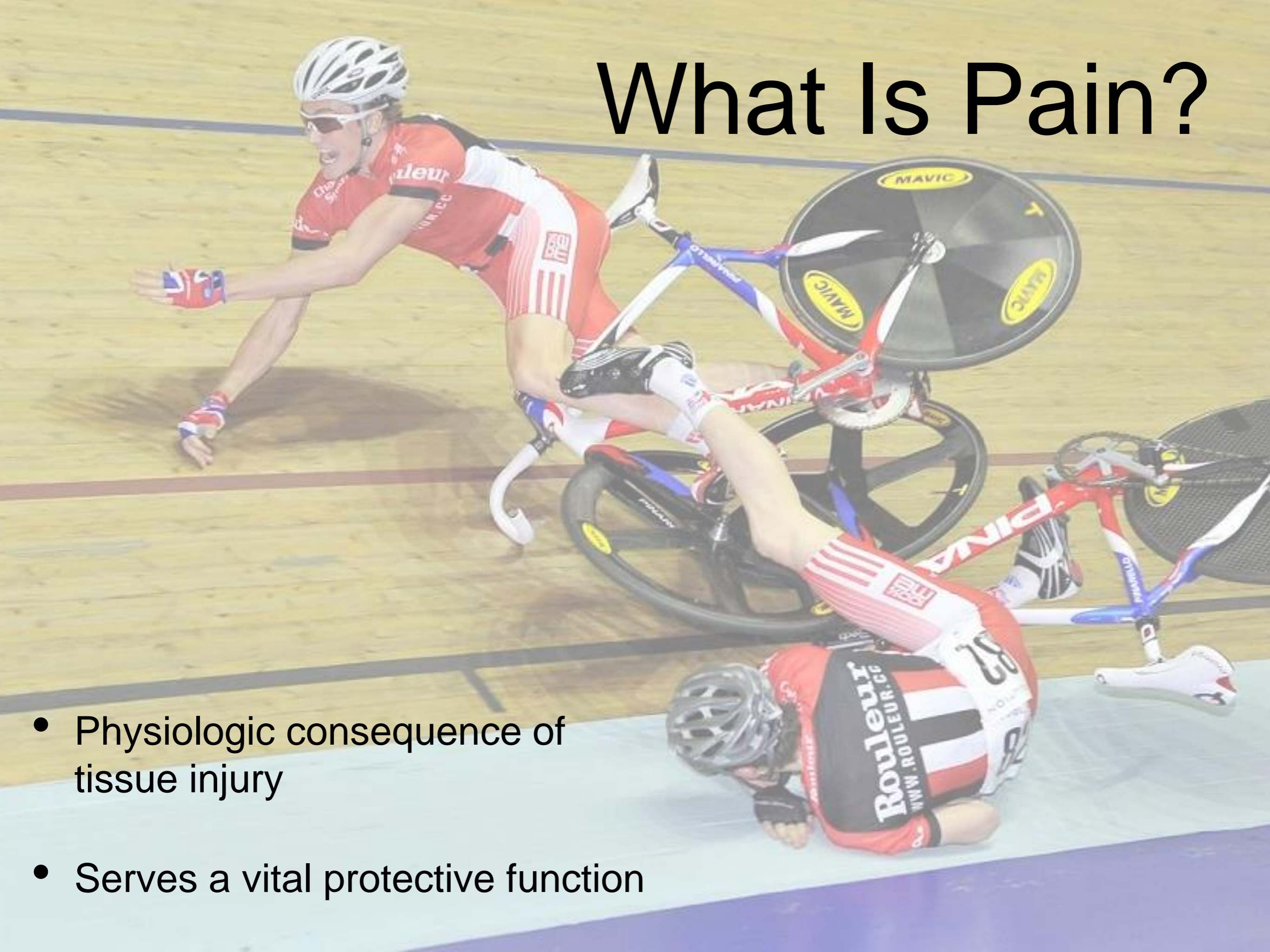


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What Is Pain?

- Physiologic consequence of tissue injury
- Serves a vital protective function



What Is Pain?

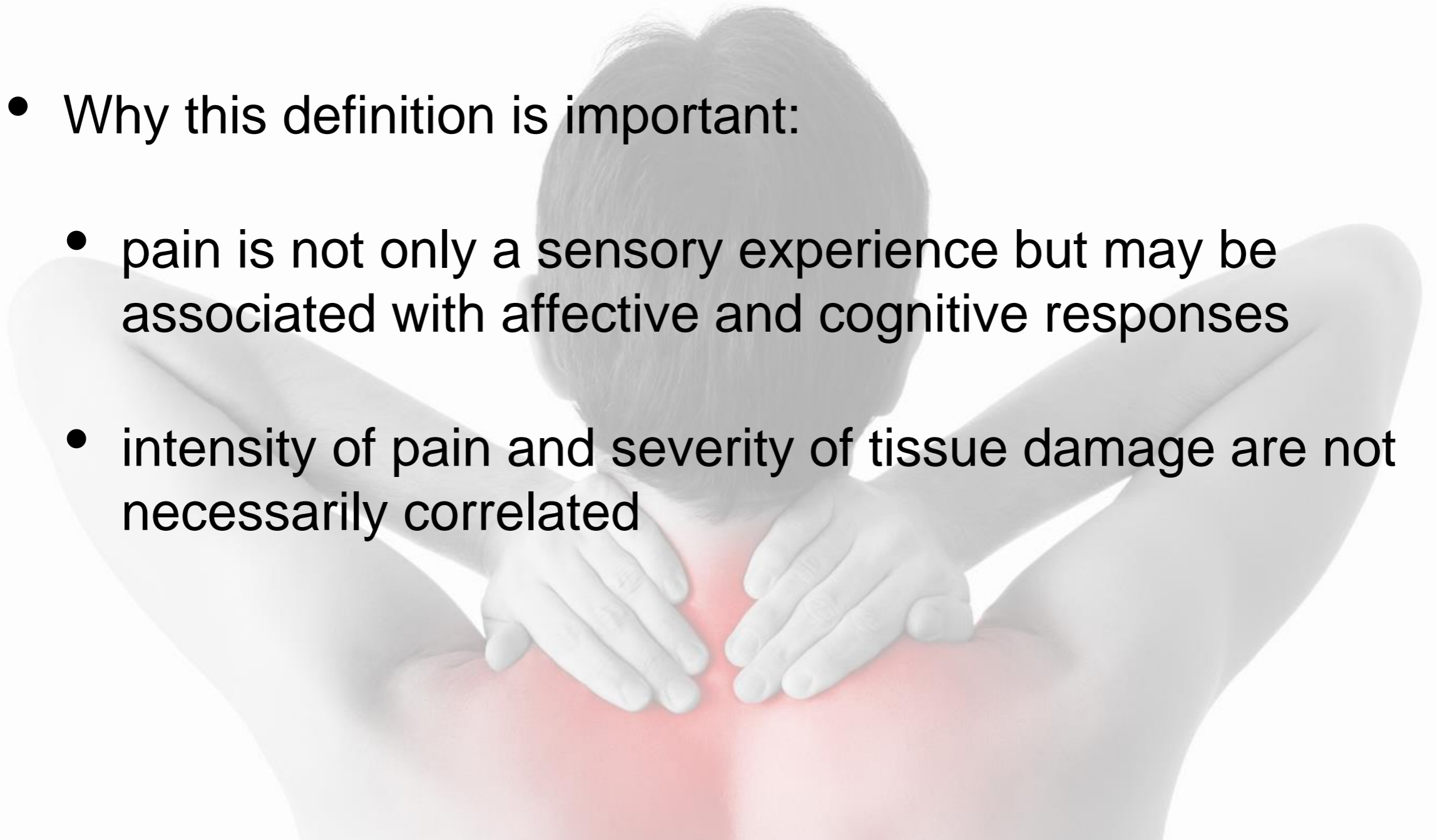


An unpleasant sensory and emotional experience associated with actual or potential tissue damage, or described in terms of such damage

International Association for the Study

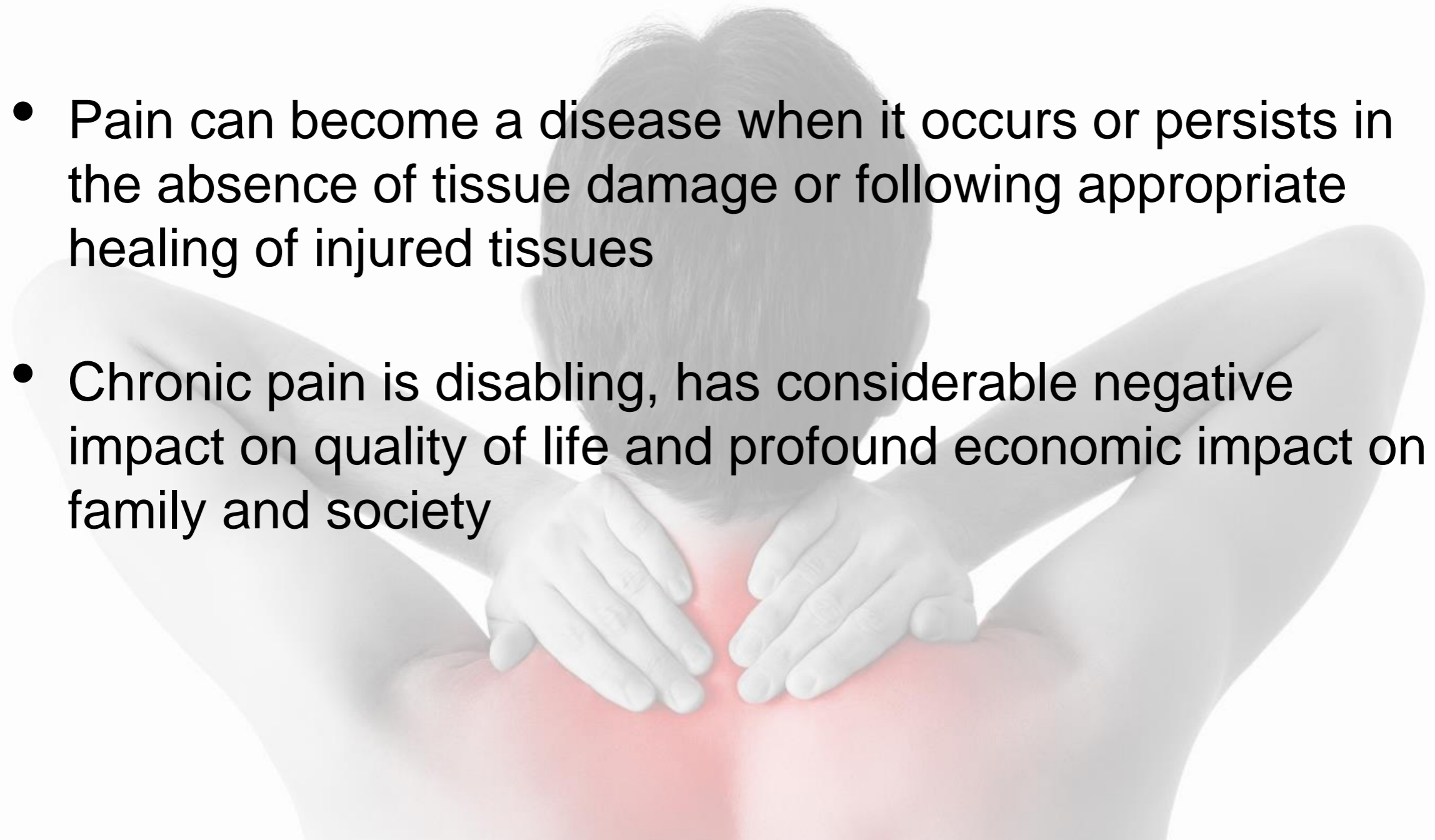
What Is Pain?

- Why this definition is important:
 - pain is not only a sensory experience but may be associated with affective and cognitive responses
 - intensity of pain and severity of tissue damage are not necessarily correlated



What Is Pain?

- Pain can become a disease when it occurs or persists in the absence of tissue damage or following appropriate healing of injured tissues
- Chronic pain is disabling, has considerable negative impact on quality of life and profound economic impact on family and society



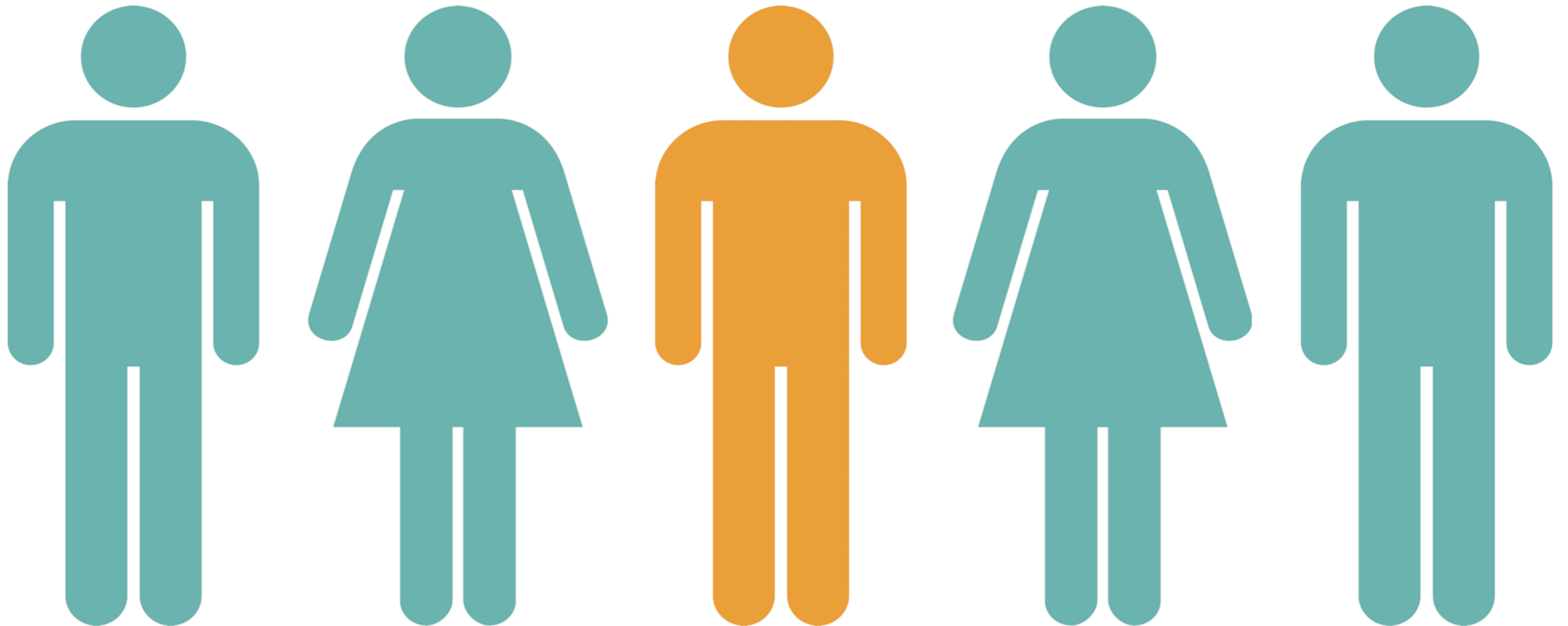
Why Is Pain Important?

- How common is chronic pain?
- How many Canadians suffer with chronic pain?



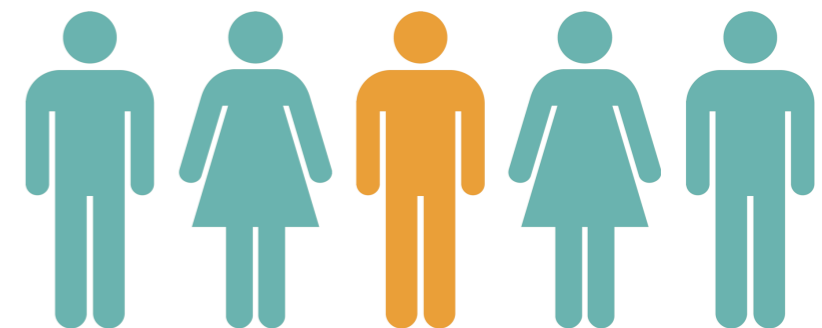
Why Is Pain Important?

- Chronic pain affects 1 in 5 Canadians
- Silent epidemic of our time



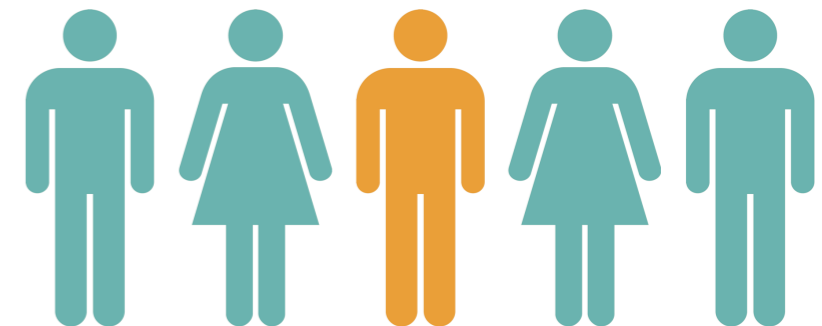
Why Is Pain Important?

- 17% of the population experiences moderate to severe chronic pain
- People living with chronic pain use more health care services:
 - more visits to primary care provider
 - 28% of emergency room visits estimated to be associated with chronic pain



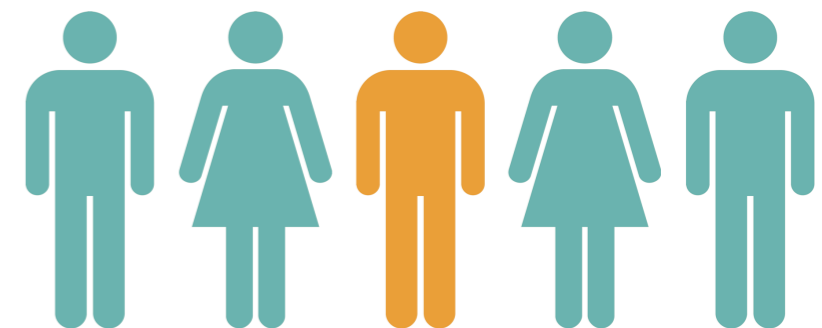
Why Is Pain Important?

- Prevalence of chronic pain increases with age:
 - 50% of seniors living in our communities
 - 80% of seniors living in residential care



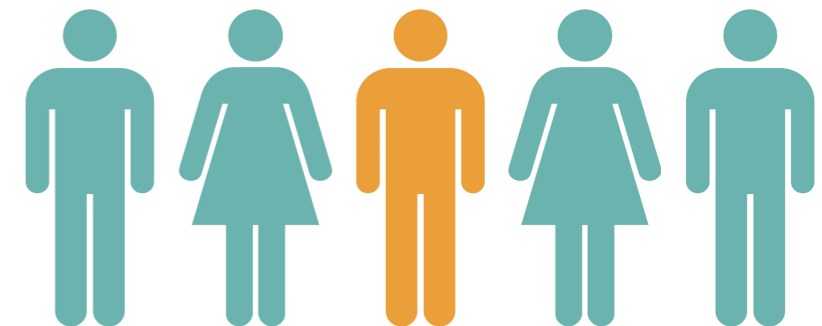
Pain & Disability

- Compared to other chronic conditions how expensive is pain?



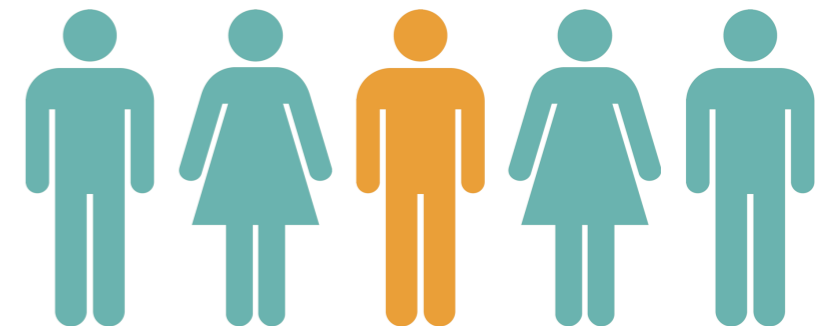
Pain & Disability

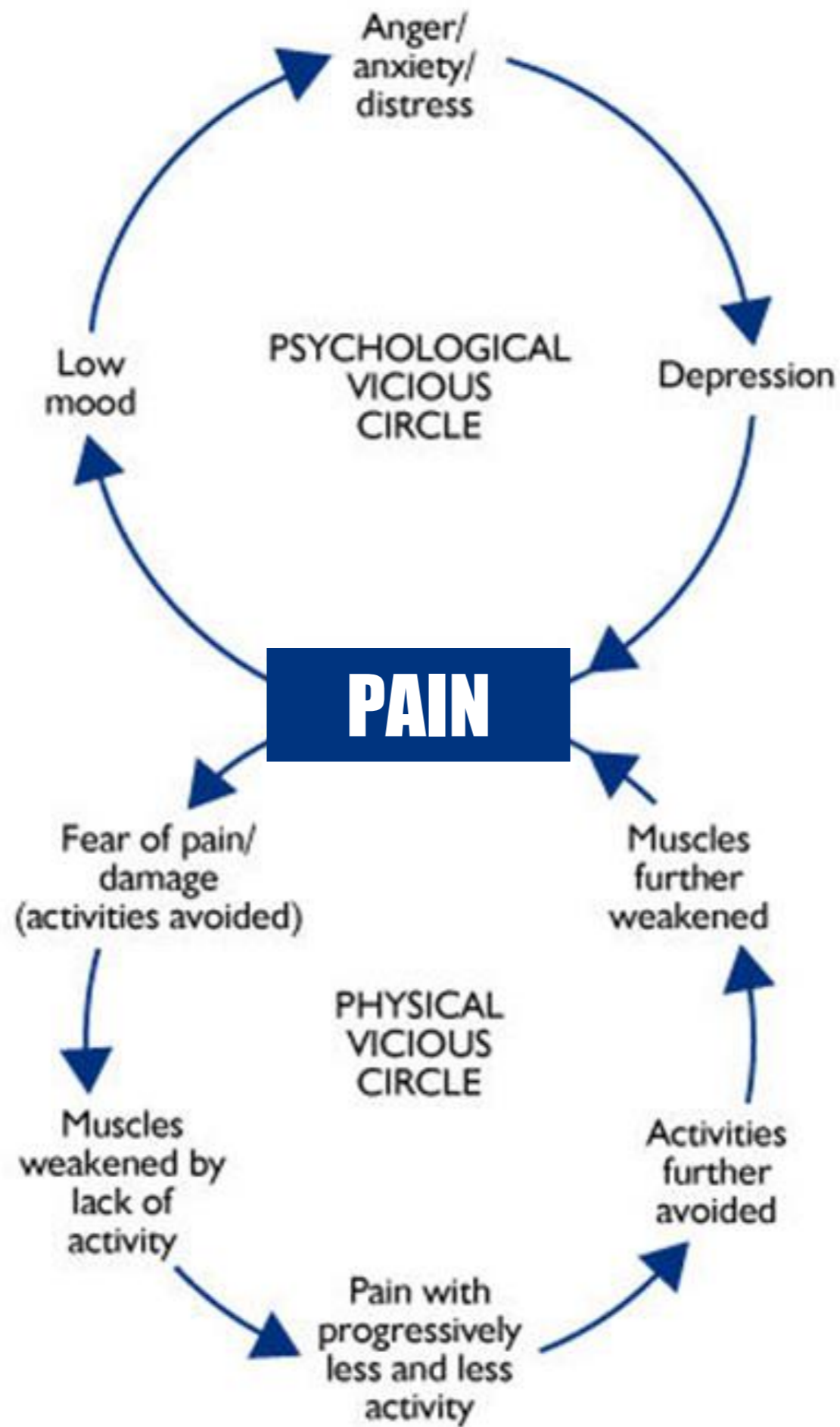
- High health service and societal costs associated with chronic pain
- Estimated to exceed the costs of cancer, heart disease and diabetes combined
- Direct health care costs more than \$7.2 billion per year
- Productivity costs related to job loss and sick days more than \$37 billion per year



Pain & Disability

- Half of people waiting for chronic pain care report having moderate to severe levels of depression
- Those with chronic pain are:
 - 4 times as likely to have anxiety
 - 2 times likely to have substance use disorder
 - 2 times risk of suicide





Pain & Surgery

- Development of chronic pain after surgery, also called persistent postoperative pain, is recognized as a significant health problem affecting the post-operative outcome of patients, their rehabilitation, and their quality of life
- Persistent postoperative pain has been defined by the International Association for the Study of Pain as a clinical discomfort that lasts more than 2 months post-surgery without other causes of pain

Persistent Pain & Surgery

- What percentage of people undergoing an operation will develop chronic pain post-operatively?

Persistent Pain & Surgery

- As many as 20 to 56% of patients develop chronic pain after surgery
- In a study that evaluated persistent postoperative pain at 12 months after surgery, the incidence of:
 - Moderate to severe persistent postoperative pain was 11.8%
 - Severe pain (numerical rating scale greater than or equal to 6) was 2.2%
 - Signs of neuropathic pain were recorded in 35.4 to 57.1%

Persistent Pain & Surgery

Surgery	Moderate to Severe Pain >3 Months
Amputation	30-81%
Cesarean Section	15%
Cholecystectomy	3-56%
Hernia Repair	5-35%
Hysterectomy	5-32%
Mastectomy	20-50%
Hip Replacement	7-23%
Thoracotomy	60-70%

Limitations of Opioids In Peri-Operative Period

- The widespread use of high doses of opioids has showed its limitations:
 - Reduced efficacy for movement-related pain
 - Dose-dependent side effects that can be very debilitating for the patient and may delay post-operative rehabilitation
 - Dose-dependent hyperalgesia (source of both acute and chronic pain)
 - Immune modulation that may have a negative impact on infections and cancer
 - Possible neurotoxicity

Transitional Pain Service

Toronto General Hospital

- Established in 2014, the Transitional Pain Service (TPS) at Toronto General Hospital is a multidisciplinary program designed to prevent chronic post-surgical pain
- TGH performs about 4,000 major surgeries per year. Of these 500 are at risk for CPSP or prolonged opioid use and are referred to TPS
- TPS sees two distinct populations:
 - 80-85% are non-chronic pain patients who are at risk of CPSP
 - 15-20% have prior chronic pain and/or are long-term opioid users

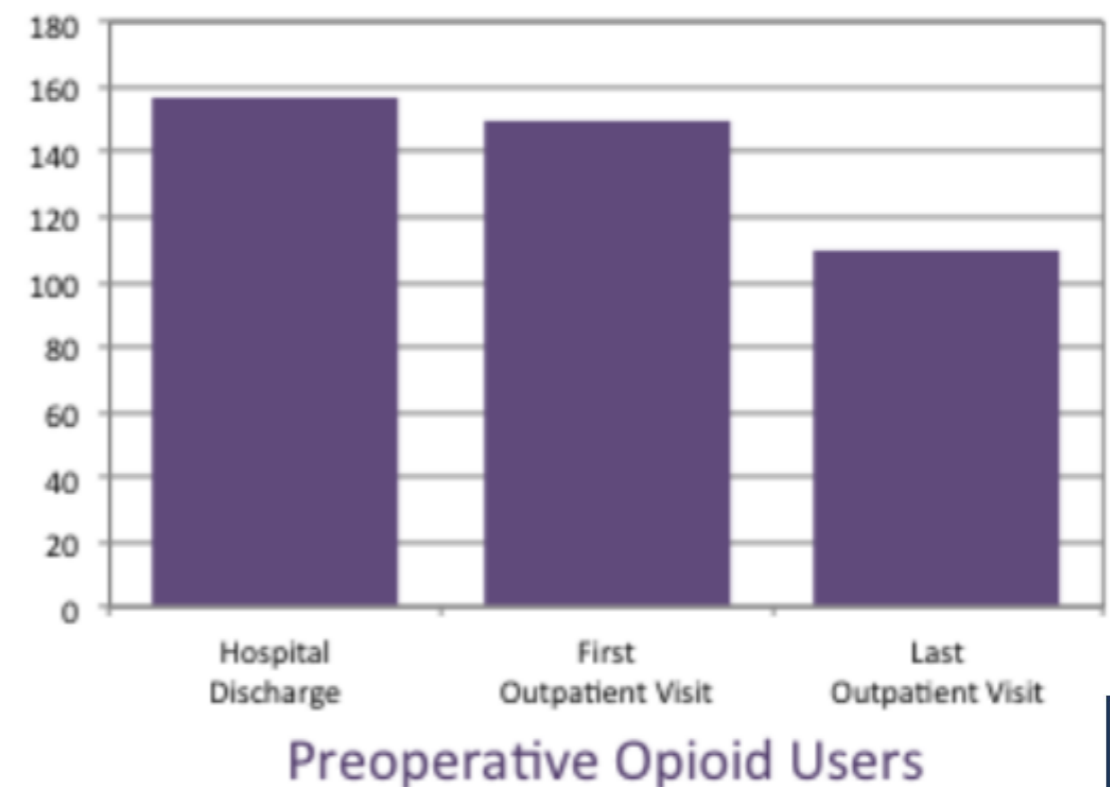
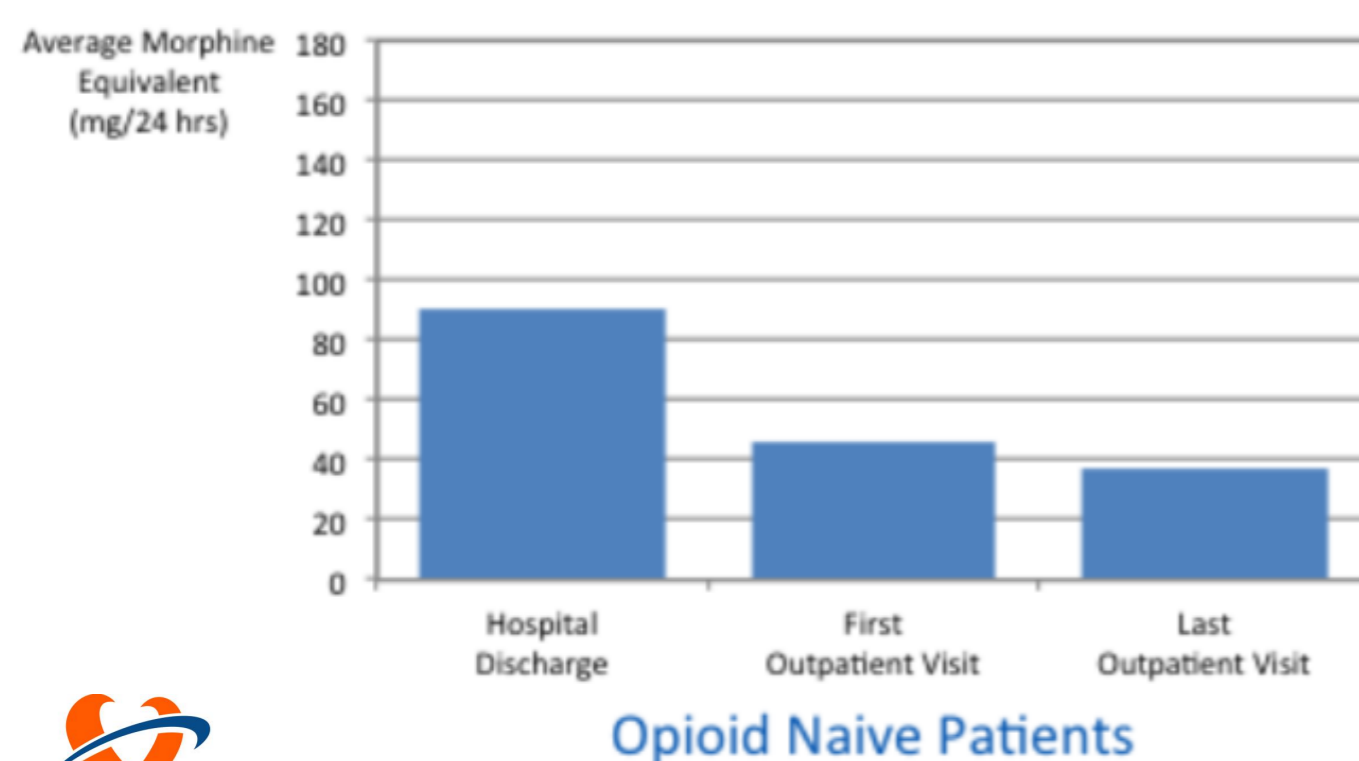
Transitional Pain Service

Toronto General Hospital

- TPS Successes reported to date include:
 - Reduced pain in postsurgical patients 3 months after surgery
 - Lower doses of opioids over time
 - More patients were weaned off opioids

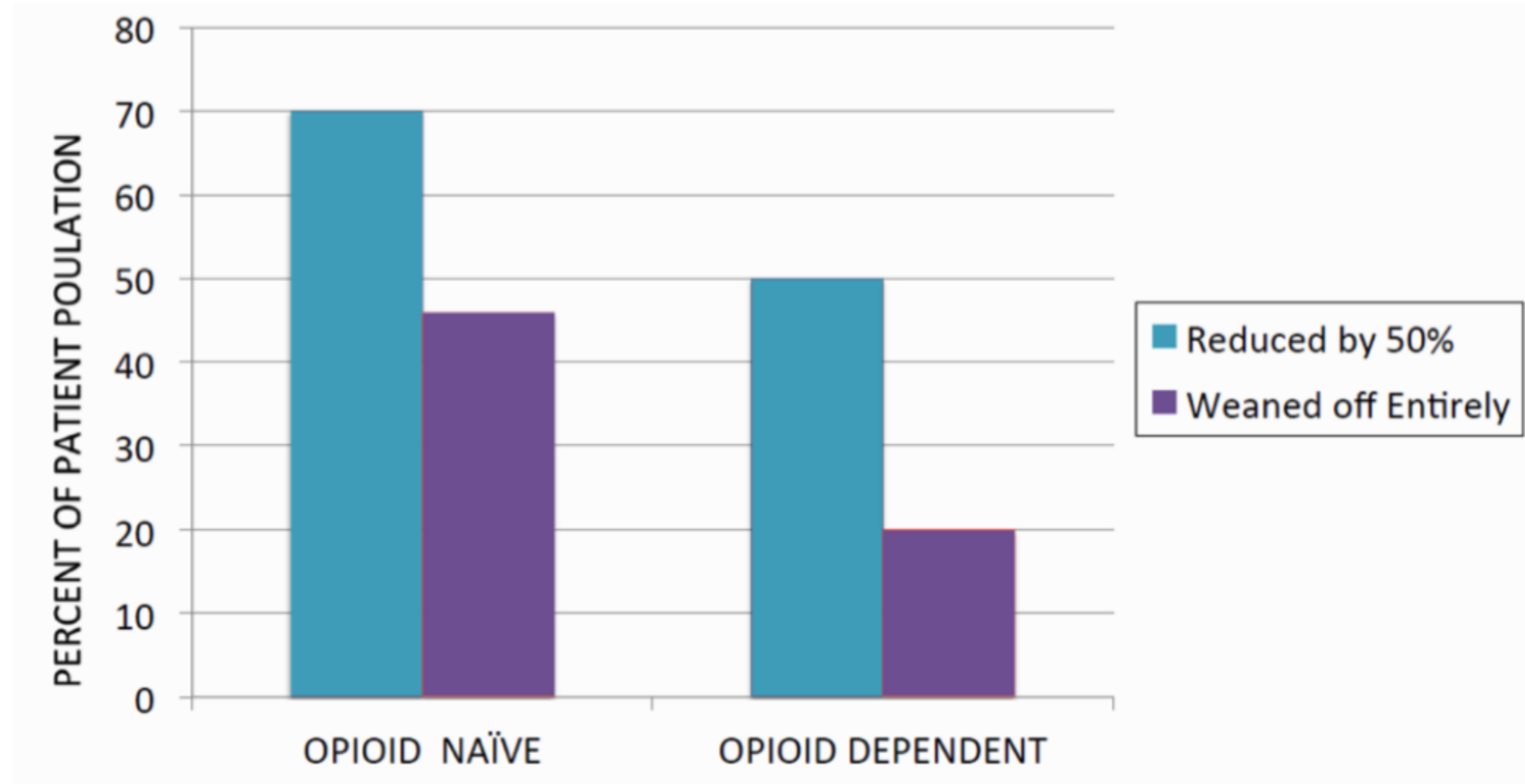
Transitional Pain Service Toronto General Hospital

- Both opioid naïve patients and those who used opioids preoperatively showed significant decreases in opioid doses with the help of TPS
- Patients who decline the TPS referral did not show a reduction in their doses (data not shown)



Transitional Pain Service Toronto General Hospital

Opioid Weaning 3 Months after Surgery



70% have reduced their
opioid use by 50%.
46% are entirely weaned.

50% have reduced their
opioid use by 50%.
20% are entirely weaned.

Transitional Pain Services Fraser Health Vision

- Develop interdisciplinary transitional pain service models in surgical sites and introduce prevention practices that includes:
 - Education
 - Screening pre-operative patients for chronic pain
 - Screening for those who have or are at risk of developing Opioid Use Disorder

Transitional Pain Services

Fraser Health Vision

- Enhance pain education for perioperative clinicians and physicians, to include prescribing practices and introduce standardized protocols
- Together these actions will begin to embed a preventative approach to pain management into standard practice

Transitional Pain Services

Fraser Health Vision

- Pre-operative screening
- Research and initiate pre-operative intervention
- Develop a Peri-Operative Pain Management Action Plan
- Follow closely post-operatively in an outpatient multidisciplinary setting

Call To Action

Patients & Providers

- Change health care provider perception:
 - Pain is real
 - Pain is life changing
 - Need to recognize and act on it

Call To Action

Patients & Providers

- Shift our measurement of pain
 - Numeric Rating Scale (0-10) is not the metric to measure
 - Holistic End points:
 - Function
 - Setting Goals
 - Quality of Life

Call To Action

Patients & Providers

- Ongoing Pain Assessment
- Early Identification & Intervention
- Education & Community Resources

Think About What You Can Change in Your Life/Practice?

- Challenge each of our beliefs about pain and how WE can make a small change and bring about action



Questions & Comments



