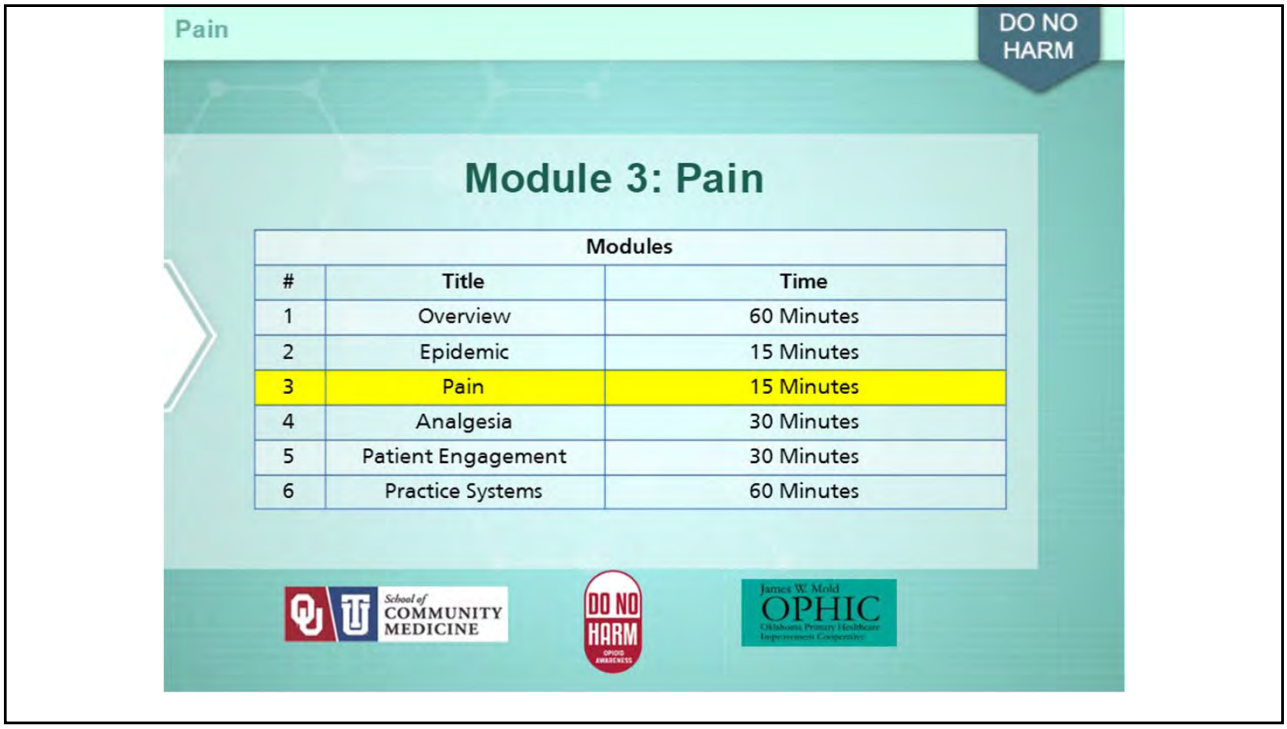

Introduction
DO NO HARM
Do No Harm: Putting Safer Pain Management into Practice
Oklahoma Primary Healthcare Improvement Cooperative
OU College of Medicine and OU-TU School of Community Medicine
Start Date: 12/01/2019
End Date: 11/30/2022
This program was made possible through a partnership with the Oklahoma Department of Mental Health and Substance Abuse Services, federal grant funding.
School of COMMUNITY MEDICINE
DO NO HARM
James W. Mold OPHIC


Pain
DO NO HARM
Module 3: Pain
Modules
Title Time
1 Overview 60 Minutes
2 Epidemic 15 Minutes
3 Pain 15 Minutes
4 Analgesia 30 Minutes
5 Patient Engagement 30 Minutes
6 Practice Systems 60 Minutes
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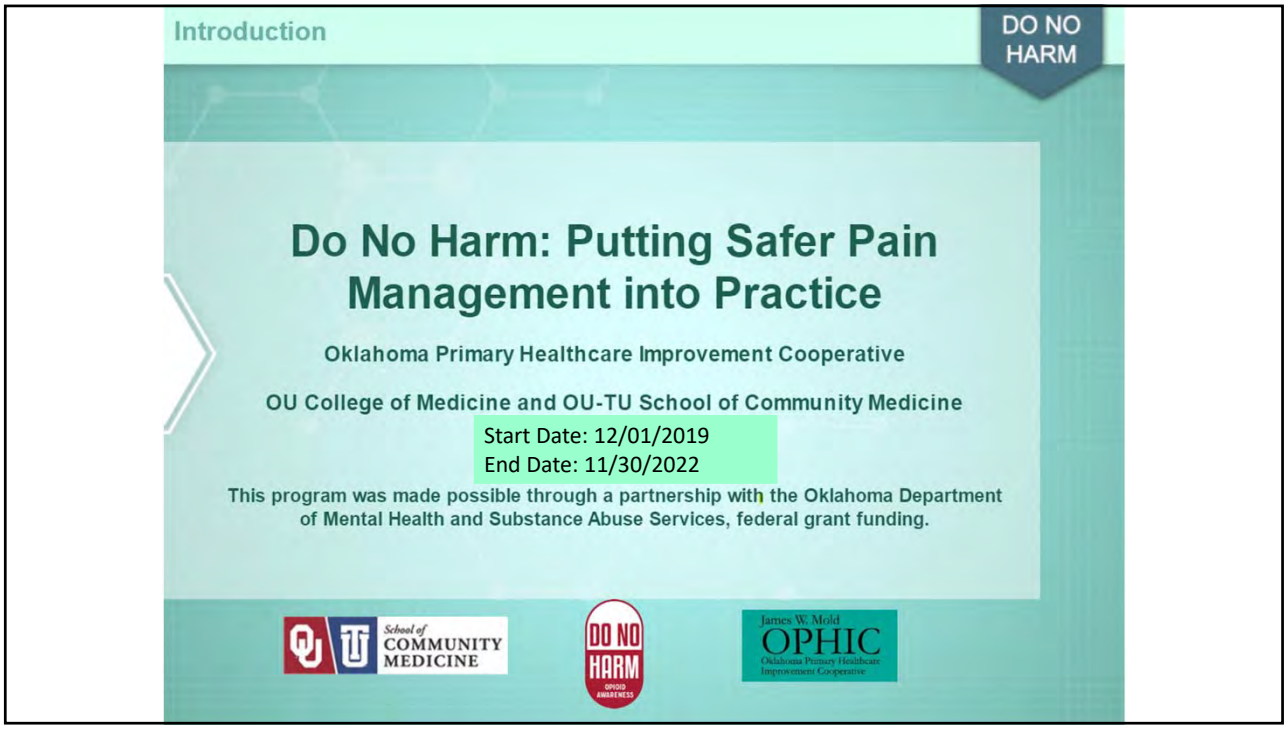
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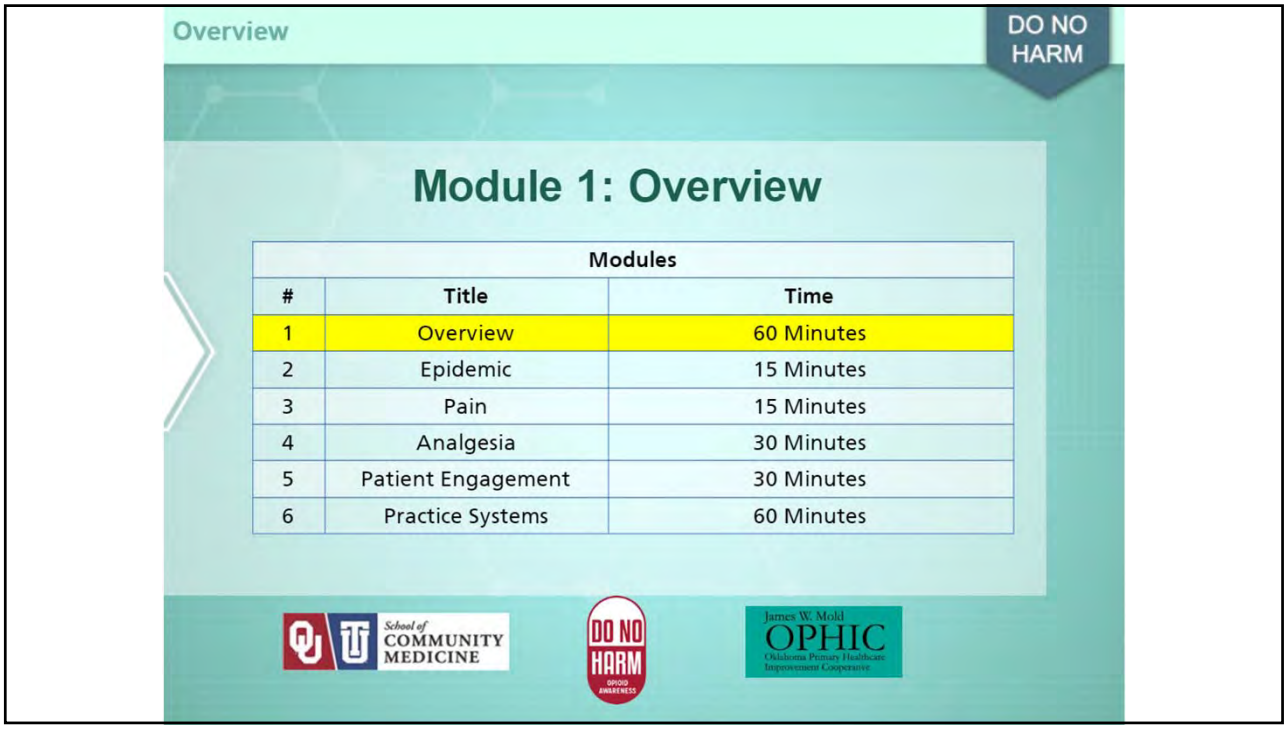
Overview
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Module 4 – Analgesia - .50 OSBP Contact Hours 20190130-OK-0631D
Module 5 – Patient Engagement - .50 OSBP Contact Hours 20190130-OK-0631E
Module 6 – Practice Systems – 1.00 OSBP Contact Hours 20190130-OK-0631F

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Planning and authoring committee:

- Steven A. Crawford, MD, DABFM, Family Medicine, Co-author, Narrator
- F. Daniel Duffy, MD, MACP Internal Medicine, Lead Author
- Shannon D. Ijams, MPAS, PA-C – Family Medicine
- Kathryn M. L. Konrad, MS, RNC-OB, LCCE, FACCE
- James W. Mold, MD, MPH, DABFM Family Medicine, Co-author

Expert review panel:

- Jeffery Alderman, MD, MS, FACP – Palliative Care
- Dorothy Gourley, DPh – Consultant Pharmacist
- Martina Jelley, MD, MSPH, FACP – Primary Care Internal Medicine
- Andrew Kolodny, MD, DABAM, DABPN – Psychiatry, Public Health
- Michael Maxwell, MD, FACP – Primary Care Internal Medicine
- Layne Subera, DO, MA, FACOFP – Primary Care Family Medicine
- Bryan VanDoren, MD, DABAM, FASAM – Internal Medicine, Addiction and Pain Medicine
- William Yarborough, MD, FACPM – Internal Medicine, Addiction and Pain Medicine

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Kathryn M. L. Konrad, MS, RNC-OB, LCCE, FACCE	
James W. Mold, MD, FABFM	
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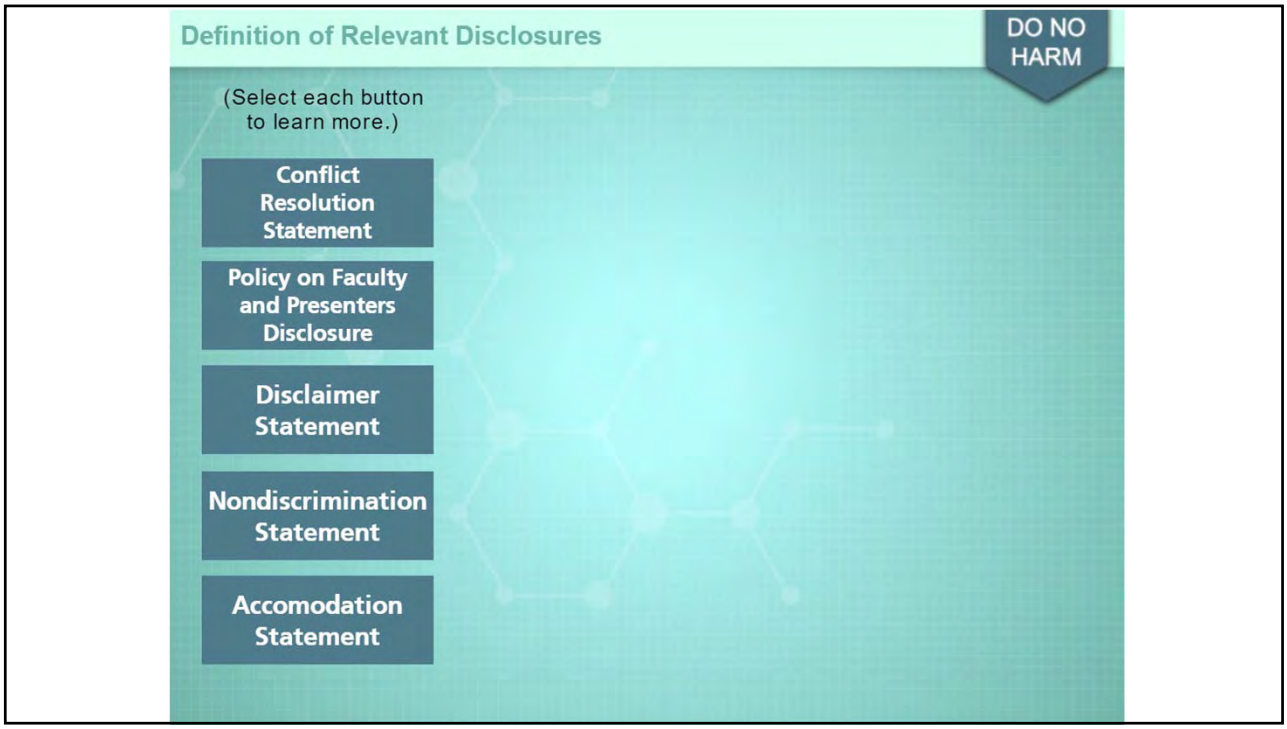
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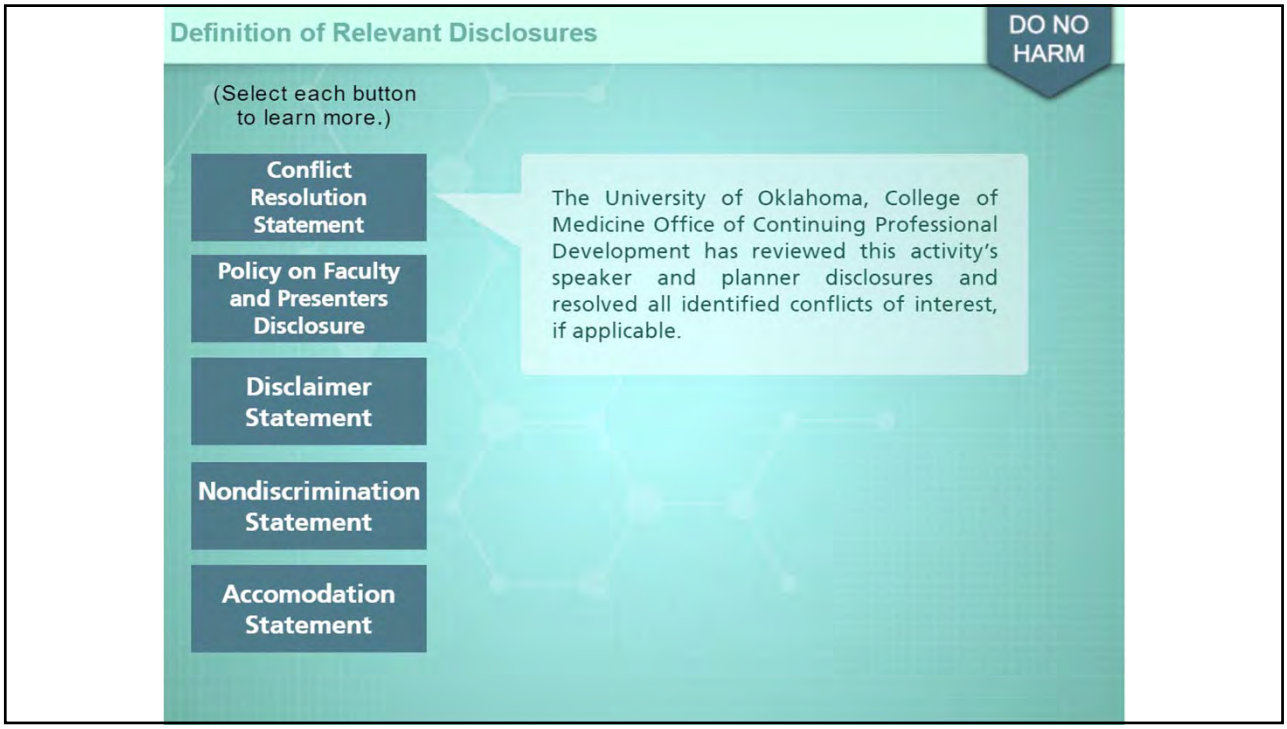
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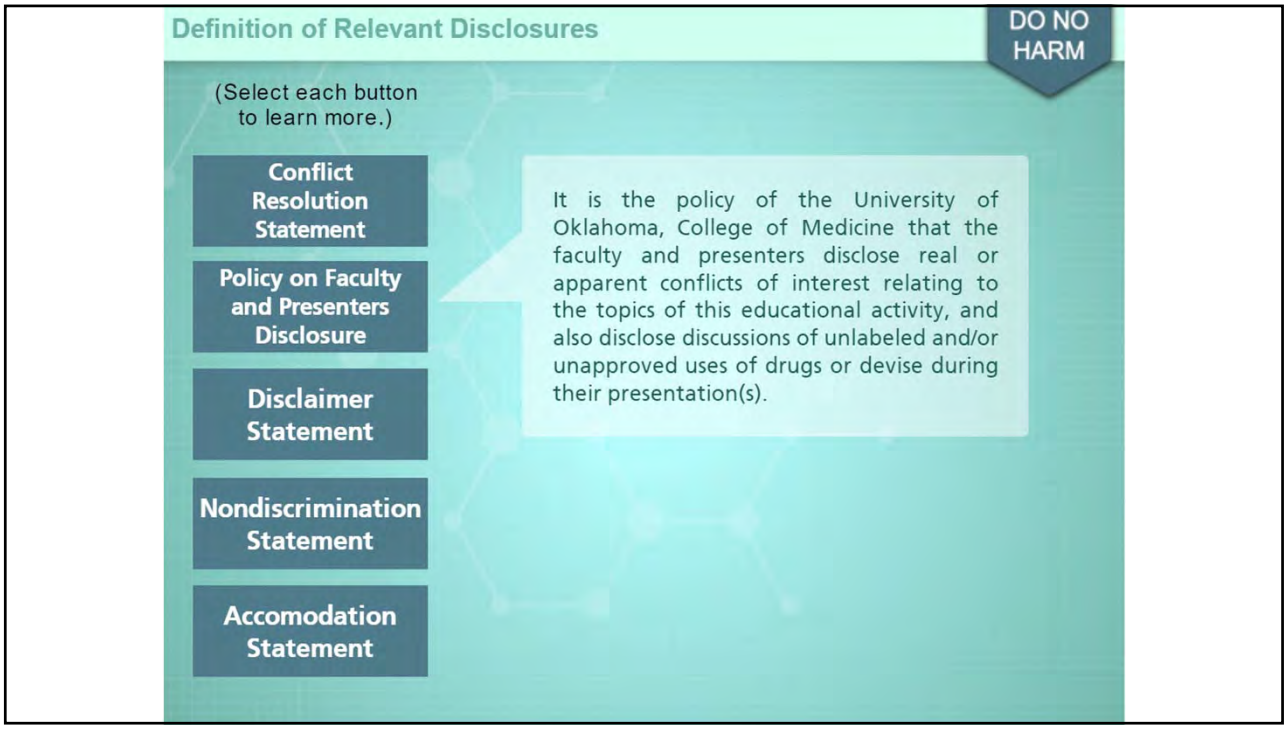
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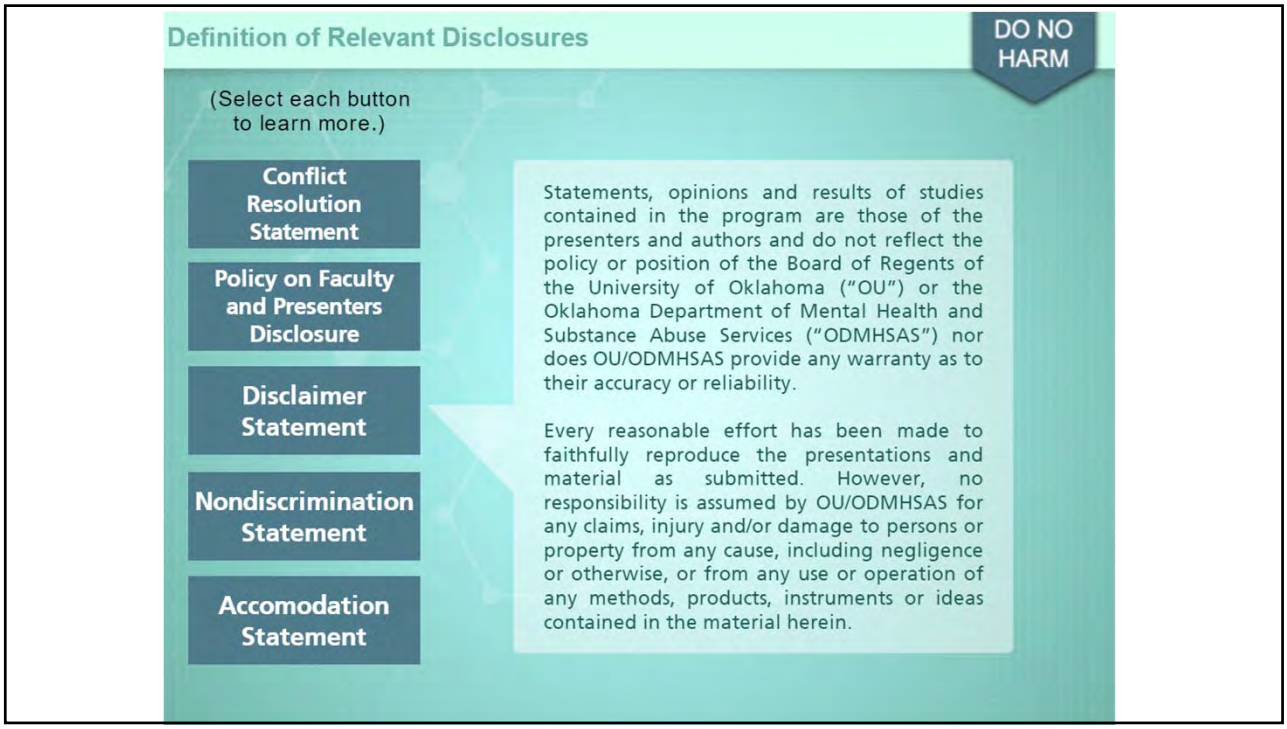
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Professional Practice Gap Being Addressed

DO NO HARM

Gap: Oklahoma healthcare providers may be unaware of the recent advances in the neurobiology, pathophysiology, and psychology of the experience of pain and its neural modulation particularly of chronic pain.

Learning Objectives

DO NO HARM

Upon completion of this module, participants will improve their competence and performance by be able to:

- Describe pain as being a complex neurophysiologic and social experience.
- Differentiate acute from chronic and nociceptive from neuropathic pain.
- Describe the neural circuits and neurotransmitters involved in acute and chronic pain.
- Define the role for opioid treatment in chronic painful conditions.

What is Pain?

DO NO HARM

Sensory, emotional, cognitive, and motor phenomenon.

Motivates action in response to potential or actual tissue or bodily injury.

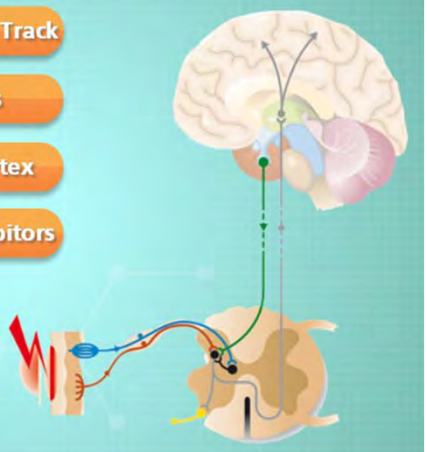
Nerve impulses reach the thalamus and stimulate brain regions to merge memories, thoughts, drives and emotions to create the experience of pain.

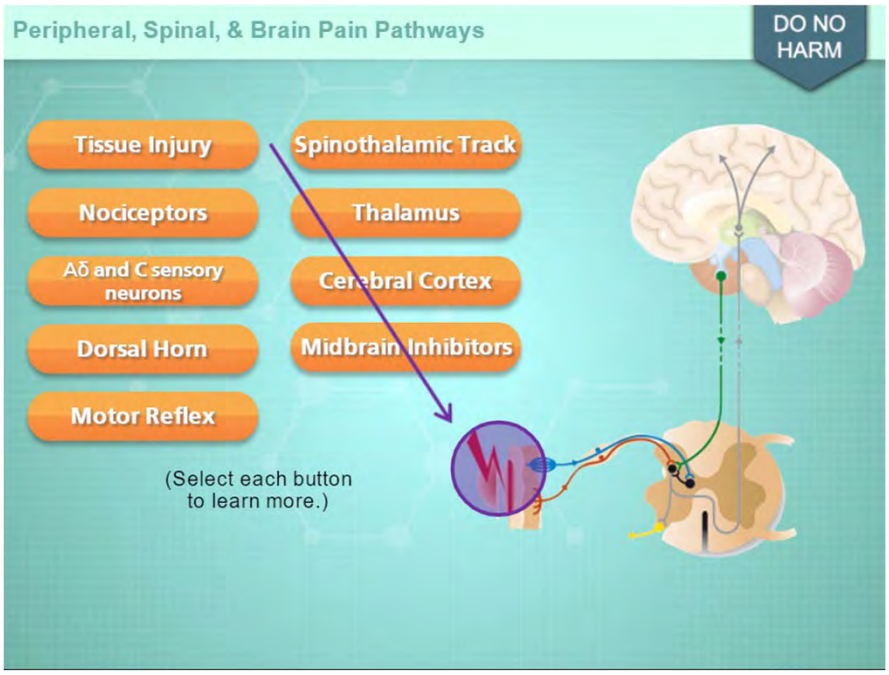
Peripheral, Spinal, & Brain Pain Pathways

DO NO HARM

- Tissue Injury
- Nociceptors
- Aδ and C sensory neurons
- Dorsal Horn
- Motor Reflex
- Spinothalamic Track
- Thalamus
- Cerebral Cortex
- Midbrain Inhibitors

(Select each button to learn more.)

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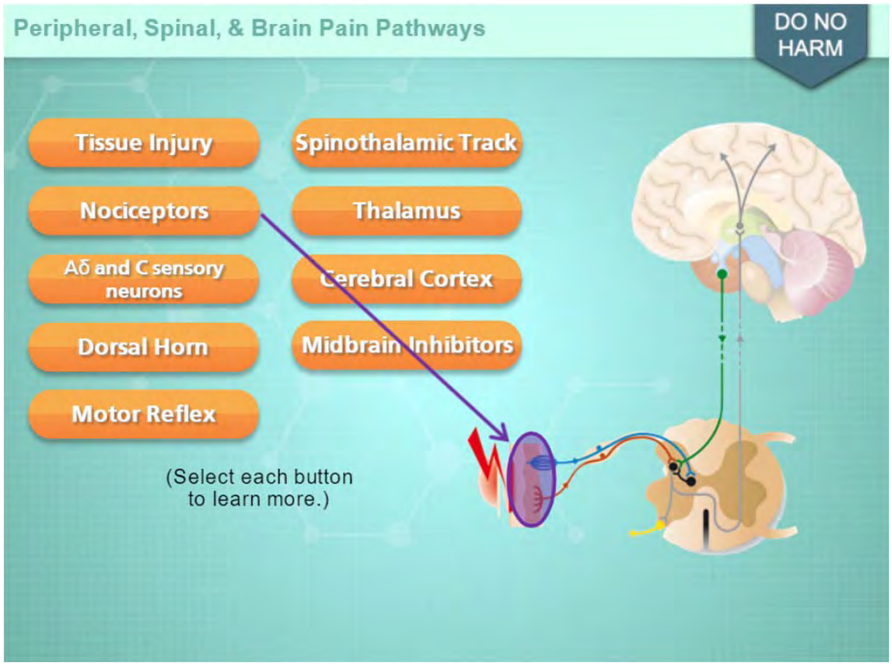
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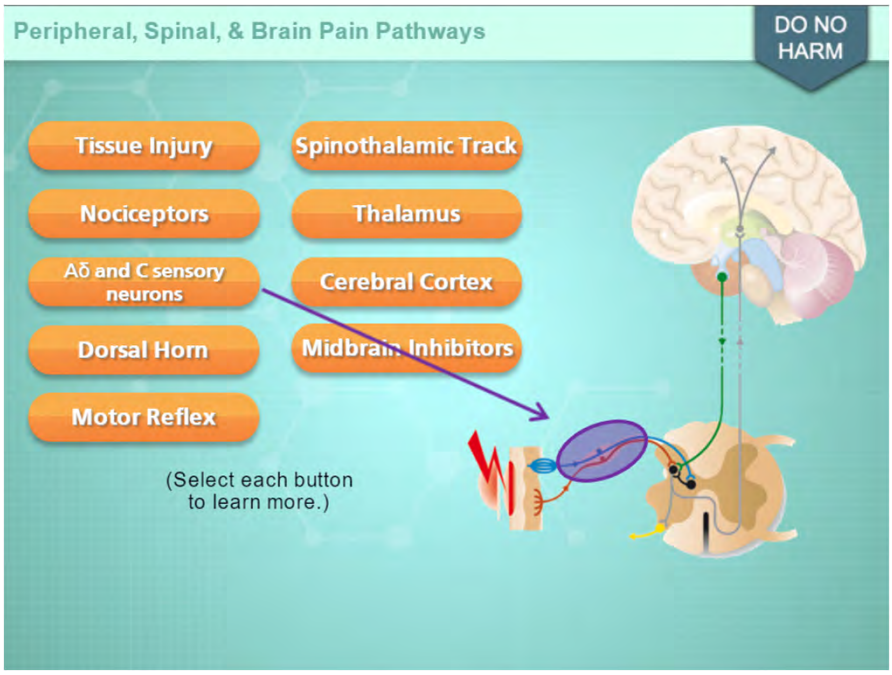
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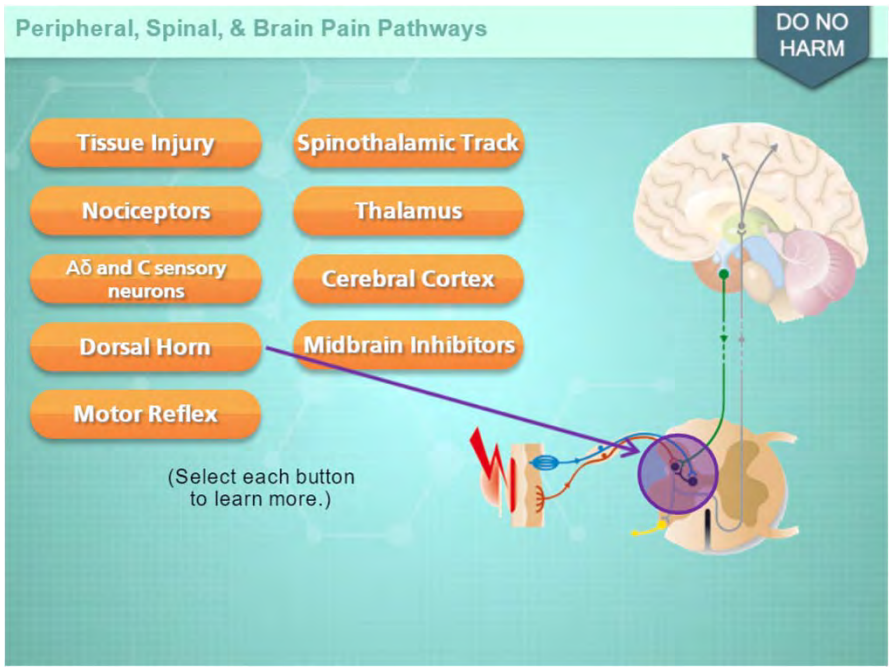
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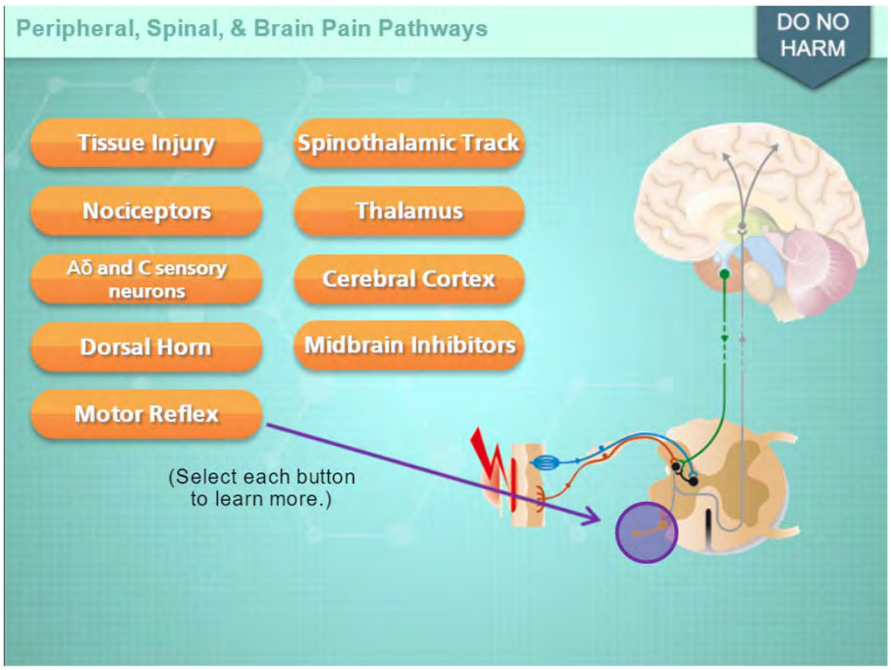
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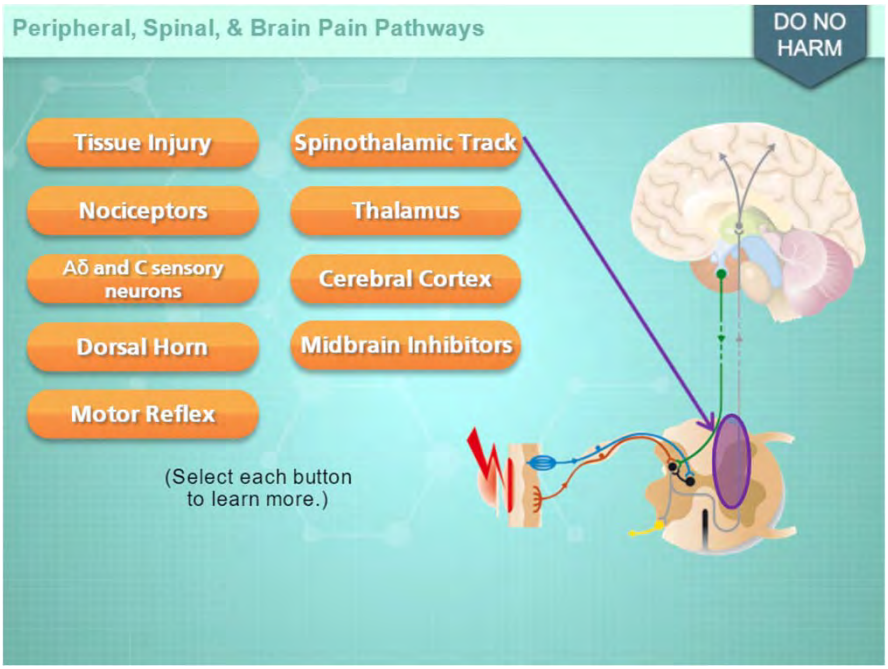
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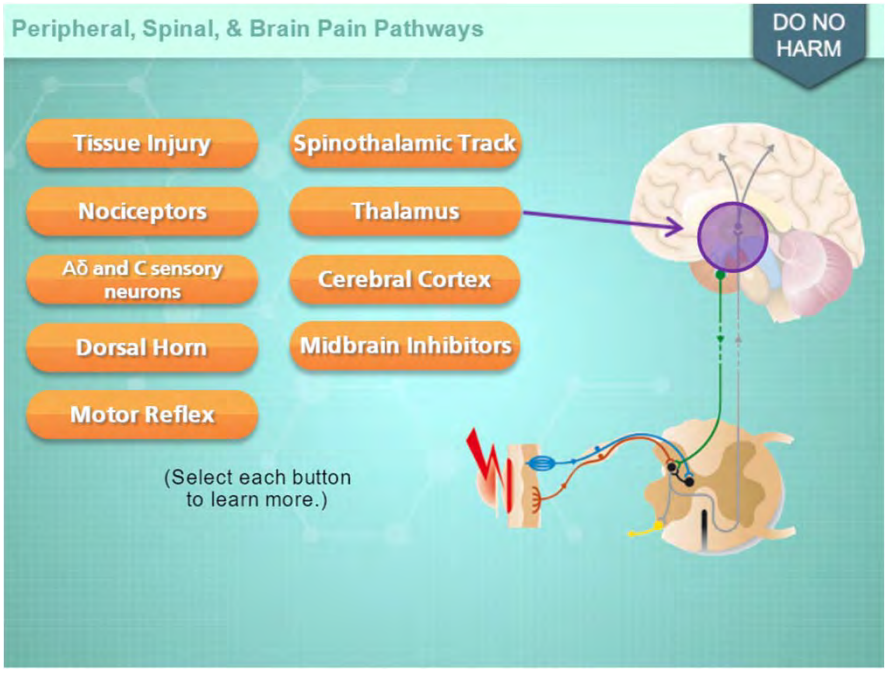
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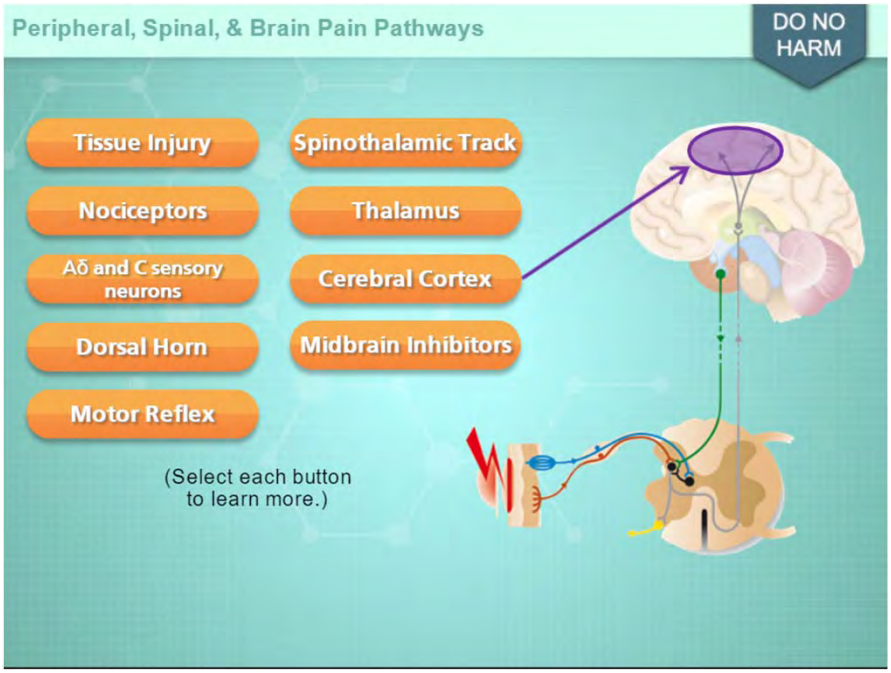
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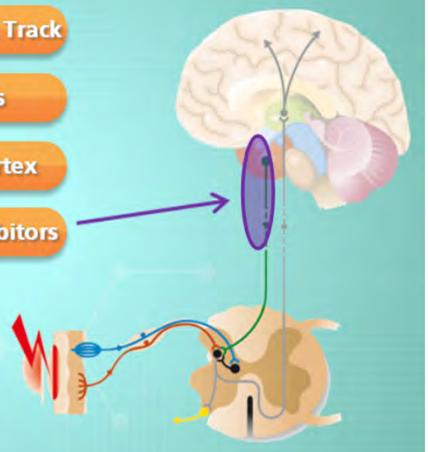
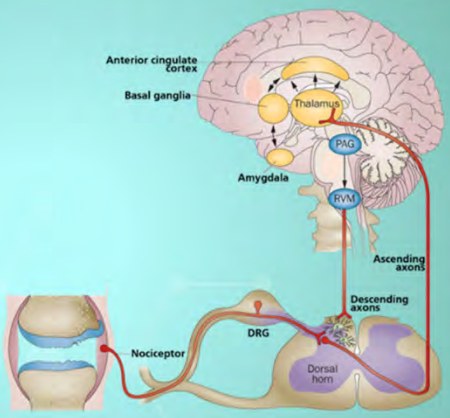


Dynamic Regulation of Nociception

DO NO HARM

(Select each button to learn more.)

- Endogenous Opioids
- Dampen Transmission
- Dopamine Surges
- Serotonin and Noradrenalin



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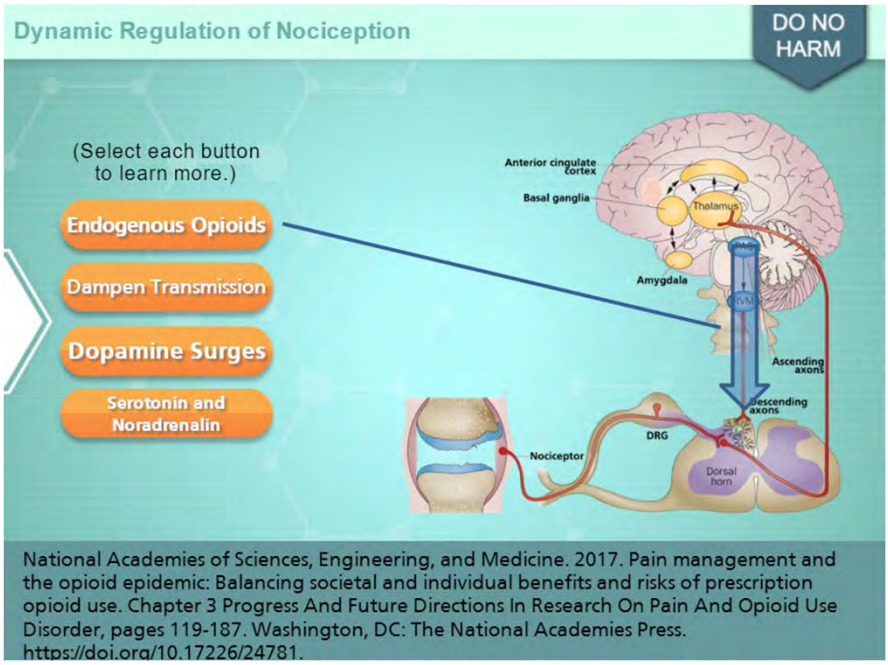

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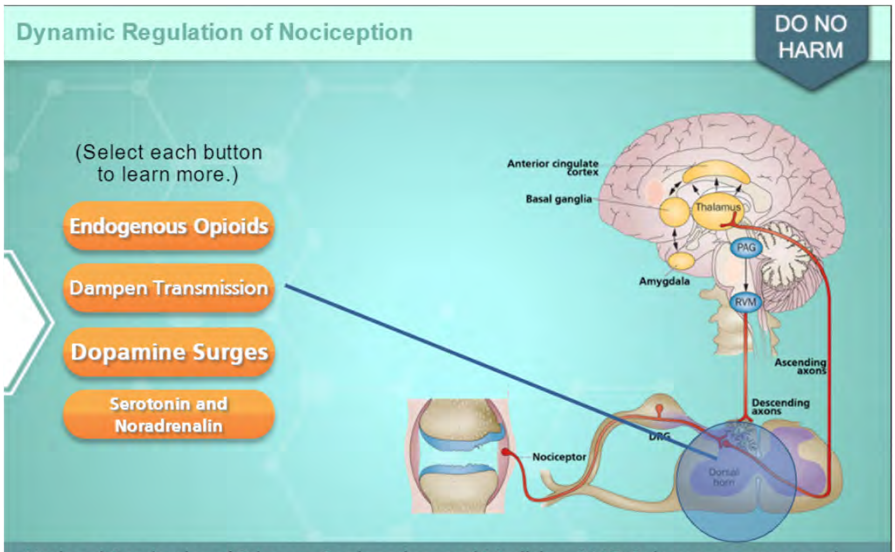

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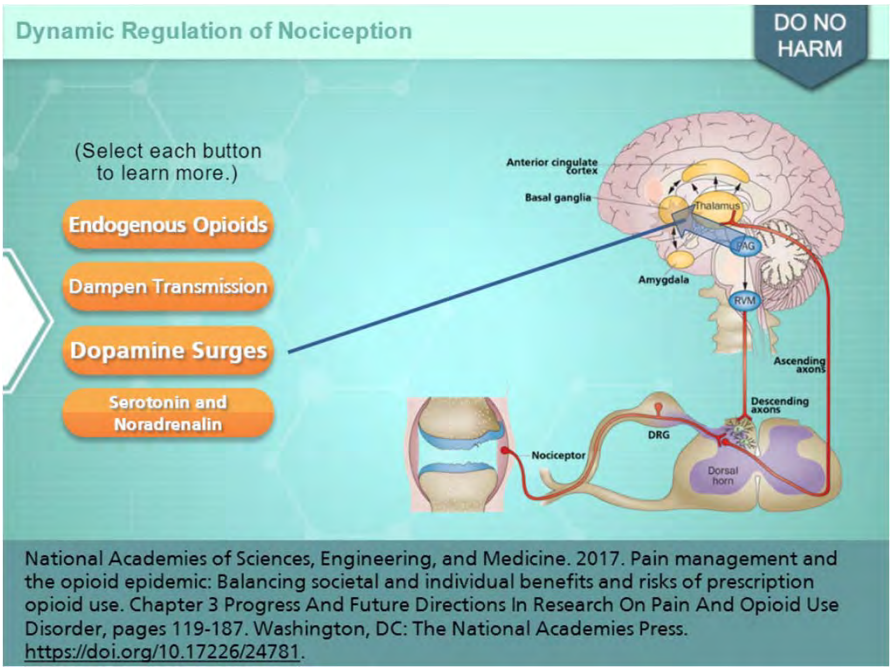

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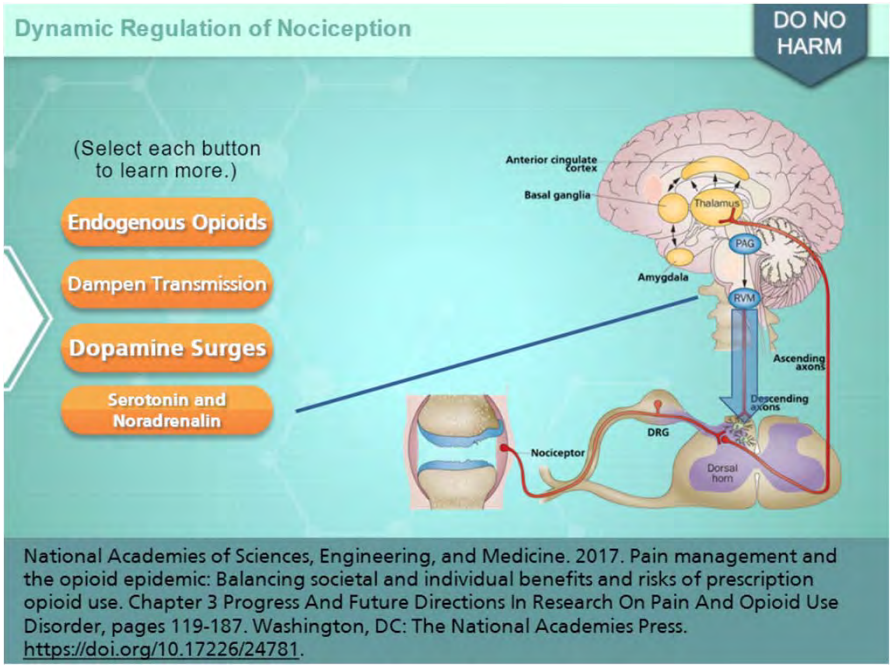

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Expression of Pain

DO NO HARM

Behavioral and Social Dimensions of Pain

Communication of pain is culturally determined.

Observed pain and suffering is a social phenomenon.

Non-pain relief motivations for expressing pain.

- Attention or sympathy.
- Power or control in relationships.
- Feed an addiction.

Clinical Types of Pain

DO NO HARM

Acute Pain
Sudden, progressive, predictable sensory response to tissue injury and release of noxious agents.

Chronic Pain
Slowly resolving acute pain OR a primary disorder of the peripheral and central nervous system.

A CDC analysis of 2016 data estimated 20.4% (50.0 million) of U.S. adults had chronic pain and 8.0% of U.S. adults (19.6 million) had high-impact chronic pain.

Dahlhamer J, Lucas J, Zelaya, C, et al. Prevalence of Chronic Pain and High-Impact Chronic Pain Among Adults — United States, 2016. MMWR Morb Mortal Wkly Rep 2018;67:1001–1006. http://dx.doi.org/10.15585/mmwr.mm6736a2.


Approach to Chronic Pain Management
DO NO HARM
Approach to Chronic Pain Management
General Health
Multi-disciplinary Team
(Click on each of the images to learn more.)


Approach to Chronic Pain Management
DO NO HARM
Approach to Chronic Pain Management
Improve general health:
• Diet, weight loss, aerobic and strengthening exercises.
• Sleep hygiene.
• Smoking cessation.
(Click on each of the images to learn more.)


Approach to Chronic Pain Management
DO NO HARM
Approach to Chronic Pain Management
Treat pain throughout the nervous system:
• Mind-body treatment.
• Physical medicine.
• Interventional therapy.
• Pharmacologic treatment.
(Click on each of the images to learn more.)


Chronic Pain Syndrome
DO NO HARM
• Psycho-sensory experience persisting for months or years.
• Nervous system changes.
• Opioids may contribute to brain changes in chronic pain.
• Physical function.
• Quality of life.
• Work attendance.
• Health, medical care seeking.
• Sleep, cognition, memory.
• Depression, anxiety, personality disorders, somatization.
• Disproportionate effect on the poor.

Common Chronic Painful Conditions

DO NO HARM

- Arthritis.
- Back pain.
- Fibromyalgia.
- Inflammatory disease (e.g. Lupus).
- Complex Regional Pain Syndrome (CRPS).
- Neuropathy.
- Spinal cord and brain disease.
- Emotional, mental illness.

Social Pain Determinates of Health

DO NO HARM

- Isolation.
- Poverty.
- Unemployment.
- Lack of opportunity.
- Hopelessness.
- Limited access to mental health services.

Pain and Toxic Stress

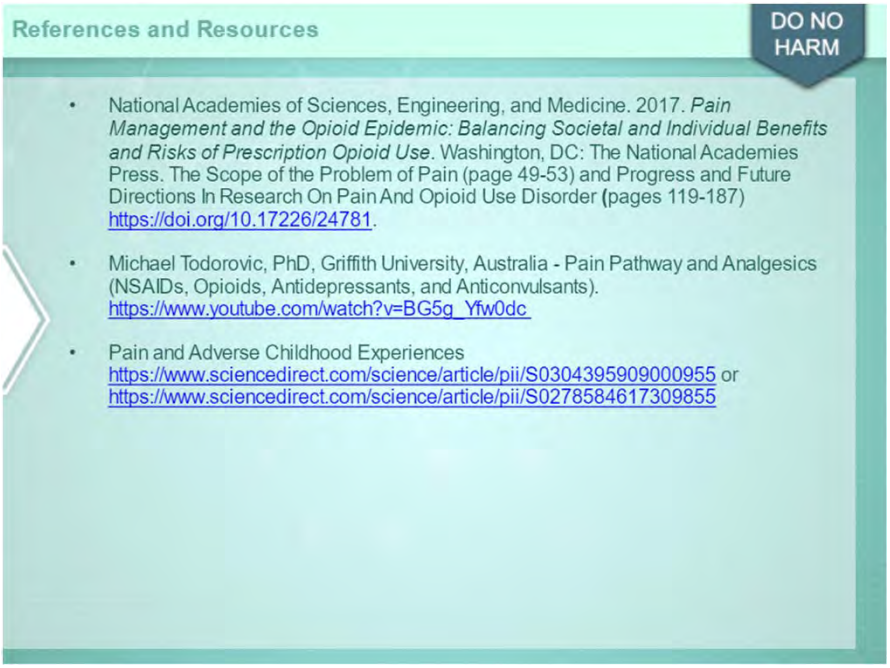
DO NO HARM

- Chronic stress and pain may be associated with the nervous system becoming oversensitive to bodily sensation, and even light touch may be experienced as pain.
- Adverse Childhood Experiences (ACEs) are associated with higher prevalence of adult chronic illness, higher risk of substance use disorder, and premature death.

Summary

DO NO HARM

- Pain is a psycho-sensory experience of tissue injury.
- Pain may be Nociceptive or Neuropathic (peripheral or central).
- Acute pain results from tissue injury.
- Chronic pain results from associated complex neurologic system adaptations.
- Brain neurotransmitters and pathways modulate pain.



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PAs – AAPA Category 1 CME Credit
PharmDs – Oklahoma state Board of Pharmacy (OSBP) Contact Hours
All other healthcare professionals – Non-physician certificate of participation.

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