

# Alternative Pain Management

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# Objectives

- 1. Describe the science of pain and the various types of pain.
  - 2. Explain issues and challenges related to managing pain.
  - 3. Provide descriptions of non-pharmacological pain management options that are effective for most types of pain.
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# The Science of Pain

- Physiological Pain
  - Psychological Pain
  - Emotional Pain
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- By definition, these are ALL unpleasant feelings, and cause suffering.





# 7 Things to Know About Pain Science

- 1. Pain is a survival mechanism to protect the body.
- 2. Pain is an output of the brain, not an input from the brain.
- 3. Physical harm does not equal pain and vice versa.
- 4. The brain can think the body is in danger even when it is not.
- 5. Pain breeds pain.
- 6. Pain can be triggered by factors unrelated to physical harm.
- 7. The central nervous system can change its sensitivity to the level of pain.



What is your Current  
State?



# Identifying Issues Related to Managing Pain

- ▶ It is imperative that healthcare providers take a thorough personal history and family history when someone presents with pain.
- ▶ Patients have a responsibility to share their history and their concerns. They have to be their own advocate!
  - ▶ Current medications?
  - ▶ History of addiction?
  - ▶ Concerns about withdrawal?
  - ▶ History of mental illness?
  - ▶ History of PTSD or other emotional trauma?



# Providing Appropriate Referral

- Healthcare providers also have a responsibility to make referrals to assist patients.
- The referral for psychological pain and emotional pain is different than for physical pain.
  - Pain Psychotherapy
  - Psychiatry
  - Counseling
- There are some techniques that cross over and help with all aspects of “suffering”.



# Pain Management Options Appropriate for Most Types of Pain

- Breath work
- Prayer
- Relaxation Techniques
  - Meditation
  - Mindfulness
  - Progressive Relaxation
  - Guided Imagery
- Biofeedback
- Hypnotherapy
- Music and Aromatherapy
- Movement and Exercise
- Manual Therapies





# Breath Work

- Holding one's breath contributes to anxiety & depression
- Pain from physical or psychological origins create an ongoing sympathetic nervous system response
- When suffering from pain, a person often feels that they are "losing control"
- Breath work can help a person focus, gain control, and reduce anxiety and depression
- Focusing on breathing also provides distraction from the pain



# Breath Work Techniques

- ▶ Pursed Lip Breathing

- ▶ Take a deep breath in through your nose. Hold for 3 seconds (count out loud or to yourself). Then exhale slowly through slightly closed lips. Your exhale should be longer than your inhale.

- ▶ 4 x 4 Box Breathing

- ▶ Inhale for 4 seconds; hold inhale for 4 seconds; Exhale for 4 seconds; hold exhale for 4 seconds

- ▶ 6 x 8 Breathing

- ▶ Inhale for 6 seconds, Exhale for 8 seconds




# Prayer



- ▶ Studies show that prayer is the most common non-pharmacological method of pain management, particularly for people with chronic pain.
- ▶ Prayer is a conversation between you and a greater-than-human intelligence, a heartfelt conversation that requires no special skill or experience.
- ▶ Does not take away pain, but rather results in more positive feelings and an improved sense of contentment.



# Relaxation Techniques

- These techniques change the way the mind perceives pain so that it is bearable.
  - As the body relaxes, you lose tension and stress, which can precipitate or exacerbate pain.
  - Many of these techniques are used in combination
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# Meditation and Mindfulness

## ➤ Meditation

- With closed eyes, you focus on 1 word, 1 object, or 1 idea.
- Use all of your 5 senses (sight, smell, sound, touch, taste) to focus all of your attention this 1 word, object, or idea.
- Repeating or chanting a word or phrase can put you in a meditative state.

## ➤ Mindfulness

- Prepare for a quiet environment
- Ground yourself to the floor or chair to notice the position of your body
- Let all thoughts go except for the present moment
- Complete a body scan from head to toe
- Think of the body as a connect whole




# Progressive Relaxation and Guided Imagery

- Progressive relaxation
  - Relax groups of muscles in a particular order
  - Most commonly starting with your head and working your way down to your toes
- Guided Imagery
  - It is like a dream that you get to direct
  - Imagine yourself somewhere else – a peaceful, beautiful environment
  - It refocuses your attention and diverts your mind and feelings




# Biofeedback

- Measures your success in making the changes to your body's functions through the various relaxation techniques.
  - Uses a hand held device that provides audio and visual information (feedback) as you are conducting relaxation techniques.
  - It measures changes in heart rate and muscle tension.
  - Home devices and Biofeedback centers
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# Hypnotherapy

- The objective of hypnosis is to distract people from their pain or alter their perception of pain.
  - People who under hypnosis for pain focus on relaxation and reducing their fear and anxiety related to the pain.
  - People become more open to specific suggestions and goals, such as lowering pain, therefore reducing their perceived pain.
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# Music Therapy

- ▶ Provides sensory stimulation that has the power to soothe, inspire, energize, and uplift.
- ▶ Shown to reduce pain perception, promote relaxation, decrease anxiety and boost a positive mood.





# Aromatherapy

- Aromatherapy
  - Aromatics can do more than provide pleasant aromas to soothe the mind – inhaling or absorbing plant extracts may also soothe your body and relieve pain.
  - Inhaling a pleasant smell triggers nerves in the brain that control your instincts and emotions.
    - Decrease cortisol levels (the stress hormone)
    - Lower heart rate
    - Decrease pain
    - Reduce inflammation
    - Improve anxiety and depression
  - Essential oils used for pain relief: Cinnamon, Geranium, Ginger, Lavender, Lemongrass



# Movement and Exercise

- ▶ Yoga

- ▶ A Hindi spiritual discipline, including breath control, simple meditation, and the adoption of specific bodily postures to promote health and relaxation.

- ▶ Tai Chi

- ▶ A Chinese marital art and system of calisthenics, consisting of sequences of very slow controlled movements, accompanied by deep breathing.

- ▶ Benefits of Yoga and Tai Chi

- ▶ Strength

- ▶ Balance

- ▶ Range of Motion

- ▶ Focus

- ▶ Quieting of the mind

- ▶ Adaptable to all body types



# Movement and Exercise

- ▶ Aerobic Exercise: Walking, Biking, Hiking, Swimming, Elliptical
  - ▶ Encourages muscular and cardiovascular strength
  - ▶ Clears the mind
  - ▶ Detoxifies the body
  - ▶ Endorphins released during exercise act as analgesics
  - ▶ Group classes are beneficial for social support
- ▶ Studies demonstrate that an exercise program with combination of strengthening, aerobic, and flexibility activities resulted in a reduction of physical pain as well as perceived pain
- ▶ Talk to your doctor regarding individualized precautions
- ▶ Start Low, Go Slow



# Manual Therapies

- Heat and Cold Therapy
  - Massage Therapy
  - Acupuncture
  - Physical Therapy
  - Craniosacral Therapy
  - Myofascial Release
  - Lymphatic Drainage
  - Chiropractic Care
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# Heat and Cold Therapy

## ► Heat

- Relieves muscle soreness and tightness, joint pain, and muscle spasms
- Heating pads, hot water bottle, hot moist towel, heat pack, hot bath or shower
- Never use heating pad on bare skin
- Never fall asleep with heating pad in place
- Do not use heat over a new injury, as it increases blood flow to the area – wait at least 24 hours

## ► Cold

- Cold lessens pain sensations by numbing the area
- Cold reduces swelling and can decrease inflammation
- Gel pack, ice bag, cold cloth or towel
- Do not use cold so intense or for too long that it causes pain itself



# Chiropractic Care

- Chiropractors can treat chronic pain. They use a variety of non-surgical treatments, such as spinal manipulation, to address chronic pain symptoms, such as inflammation and muscle tension.
- Chiropractic Care for Pain Management Chiropractic techniques benefit individuals who live in pain, including those with conditions like carpal tunnel syndrome, shoulder pain, back pain, neck pain, headaches, arthritis and fibromyalgia.
- When chiropractors perform spinal manipulations and manipulations of the extremities, they promote your body's ability to self-heal.

# Massage Therapy

- Manipulates soft tissues to relieve tension and pain
- Releases muscle spasm
- Often used to treat chronic pain in the low back, neck and shoulders
- Used to treat osteoarthritis, migraine headaches, and fibromyalgia
- Can be used in combination with aromatherapy






# Acupuncture

- Works by applying needles, heat, and pressure to specific points of the body.
- The theory is that stimulating these points releases or redirects the body's natural energy (chi).
- Studies suggest it works particularly well on chronic pain in the neck and back, osteoarthritis, and headaches.






# Physical Therapy

- Dry Needling
  - Electrical Stimulation
  - Ultrasound
  - Laser
  - Aquatic Therapy
  - Individualized Exercise Instruction
  - Manual Therapy
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# Dry Needling

- Different from acupuncture
  - Mechanical-device manual therapy technique
  - Developed in a pain management clinic under fluoroscopy and real-time ultrasound
  - Intramuscular technique with consideration of the physical structure and segmental innervation
  - Reinforced with corrective exercises utilizing the neuromuscular
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# Electrical Stimulation



## ➤ E-Stim

- Electrical impulses provided to area through electrodes applied to your skin
- Electrical impulses produce a tingling sensation
- Used to contract muscles that are weak or not functioning well
- Used to decrease pain or spasm
- TENS (transcutaneous electrical neuromuscular stimulation) is used to decrease pain by placing electrodes over painful areas of the body. The intensity of the electricity helps block the pain signals to your brain.
  - TENS units can also be purchased over the counter
- Iontophoresis is a type of e-stim that PT would administer by pushing medication through your skin through the electrical currents



# Ultrasound

- Used to provide deep heating to soft tissues such as muscles, tendons, joints, and ligaments.
- Helps the healing process by increasing circulation to the area and decrease pain.
- Increases the elasticity of the muscles and tendons that may be tight.
- Non-thermal US introduces energy to the body to make it contract and expand rapidly to aid the healing process of injured tissue.

# Laser

- ▶ Light energy is delivered to the body through a low level laser therapy.
- ▶ A laser can reduce pain and inflammation, accelerate healing in damaged tissues, relax muscles, and stimulate nerve regeneration.
- ▶ Patients must wear eye protection
- ▶ One of fastest and more effective modalities, but not covered by insurance.



# Craniosacral Therapy

- A form of bodywork or alternative therapy that uses gentle touch to palpate the synarthrodial joints of the cranium.
- It relieves compression in the bones of the head, sacrum, and spinal column.
- It is non-invasive and relieves stress and pain caused by compression.



# Myofascial Release

- Myofascial Therapy is also known as myofascial release therapy or myofascial trigger point therapy.
- It is a type of safe, low load stretch that releases tightness and pain throughout the body caused by myofascial pain syndrome.
- Myofascial pain syndrome is chronic muscle pain that is worse in certain areas known as trigger points.





# Lymphatic Drainage

- ▶ Lymph Drainage Therapy can be used to activate fluid circulation and reroute stagnant fluid.
- ▶ This helps drain toxins, proteins, fat. It also helps stimulate immune system and the parasympathetic system.





THANK YOU FOR YOUR TIME AND  
ATTENTION TODAY