Pain Assessment and Management Initiative

Nonpharmacologic Management of Pain in Adults and Children

Updated May 1, 2019

Pain Assessment and Management Initiative

PAMI learning module content will sometimes overlap due to similar topics. The PAMI website offers access to learning module handouts, PAMI Pain Management and Dosing Guide, resources, toolkits, best practices and recent pain news.

We welcome your feedback on all PAMI materials and are interested in how you use them to improve patient safety, pain education and clinical care. Please email emresearch@jax.ufl.edu.

For more information please visit http://pami.emergency.med.jax.ufl.edu/

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Citation for Presentation

- An electronic pdf version of this document is available on the PAMI website at http://pami.emergency.med.jax.ufl.edu/.

- All PAMI created materials are free access and can be utilized for educational programs or adapted to institutional needs.

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Learning Objectives

- Discuss the influence of developmental stage, cognitive level, age, genetics, and past pain experiences on the approach to pain management.
- Define and determine components of nonpharmacologic and multimodal approaches to pain management.
- Discuss the advantages of using nonpharmacologic pain management interventions to decrease opioid use, save time, and improve patient safety.
- Apply knowledge of nonpharmacologic interventions to patient case scenarios.

Consider these case scenarios ….

Scenario 1: Rescue arrives at the residence of an 85 year old female who fell down the stairs in her home. Medics perform a quick assessment and determine that her left ankle is swollen and tender. She appears anxious and in pain.

Scenario 2: A 3 year old boy presents to ED triage with a history of running into the edge of a glass coffee table and hitting his head. He has a laceration on his forehead that is bleeding. His mother is trying to calm him and apply pressure to his wound. The child begins screaming and thrashing when he sees the nurse/doctor.

Scenario 3: A 2 year old presents to his pediatrician's office for his well child visit to update his vaccinations. The child who had been playing in the room begins to cry and pull away when he sees the vaccine needle.

Scenario 4: A 65 year old presents to her primary care doctor for worsening fibromyalgia pain. Her home pain medications are not controlling her pain.

Nonpharmacologic concepts and techniques to apply in these scenarios will be presented throughout this module. Think of how you would apply these concepts to your practice setting.

Module Outline

1. Basics of Pain and Nonpharmacologic Management
2. Nonpharmacologic Pain Management
   a. Cognitive-Behavioral Interventions
   b. Physical (Sensory) Interventions
3. Pediatric and Special Populations
4. Incorporating Nonpharmacologic Management into Practice
5. Case Scenario Discussion
6. Summary
7. Additional Resources

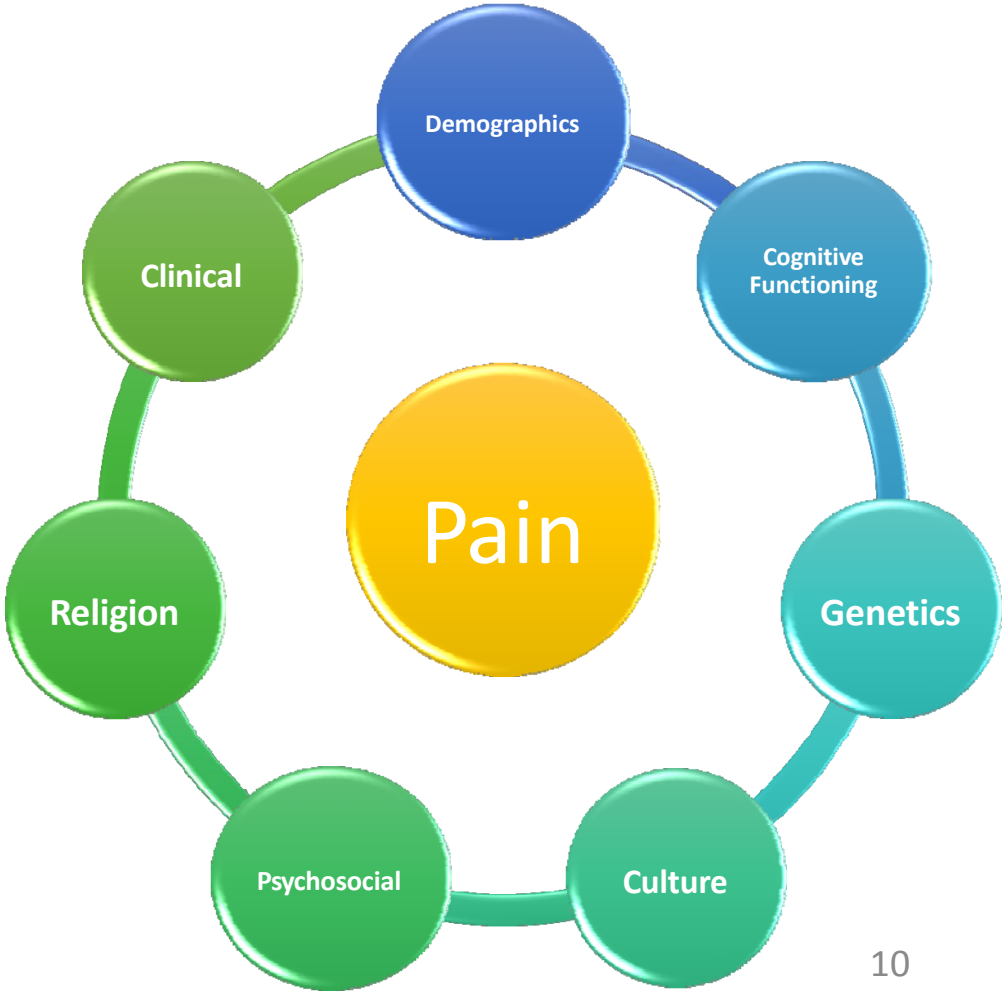
1. Basics of Pain and Nonpharmacologic Management

Pain in the United States

- Nearly 100 million (32%) adults in the United States experience acute or chronic pain.
- Pain (acute, chronic and procedure-related) is the most common reason for seeking healthcare.
- Chronic pain alone affects more Americans than diabetes, cancer, and heart disease combined.
- Untreated acute pain and anxiety can have long-term effects, such as the development of chronic pain, stress and sleep disorders.
- Safe, appropriate pain management must be balanced with risks for addiction and increased opioid overdose deaths in the US.

How Does Pain Affect Us?

- Pain is **multidimensional**, affecting people physically, psychologically, socially and spiritually.
- Patients' responses to pain may be related to:
  - genetics, age, gender, ethnicity, socioeconomic and psychiatric factors, catastrophizing, culture, religion, previous experiences, patient perceptions and expectations, etc.
- Nonpharmacologic interventions alone or in combination with pharmacologic modalities have been found to be *effective* in managing pain, particularly in the pediatric population.
- Nonpharmacologic interventions are considered to have **fewer** side-effects and tend to be **preferred** by older populations.



Pain Assessment

- There are different types of pain. Knowing the type of pain a patient is experiencing is essential to effectively manage pain.

- There are various pain scales that can be used depending on the age and cognitive status of the patient. Using the right pain scale for the patient is necessary to accurately assess pain.

The next two slides will give an overview of the classes of pain and different pain scales.
For more information on these topics, please see PAMI's "Basics of Pain Assessment and Management" module.

Assessing Nonpharmacologic History

Patients are often unknowledgeable of the details regarding their prescribed medications. They may not consider herbal, natural or complementary treatments as medications and therefore not disclose this information. ***Remember to ask patients about both pharmacologic and nonpharmacologic interventions they may have tried and whether they were effective.***

History may be difficult to obtain from the following patient types: adolescents, nonverbal, children (especially with multiple caregivers), severe pain or incapacitation due to presenting illness/injury, older adults, sedated, confused, mentally ill, non-English proficiency, hearing or speech impaired.

- **Ask** about recent medication usage including herbal and over-the-counter (OTC) medications, dose, frequency, strength, formulation and last consumption and compare to the medical record or a state prescription drug monitoring program (PDMP).
- **Ask** about other treatments such as nerve blocks, topical agents, ice/heat, acupuncture, physical therapy, chiropractic care, massage and other modalities.

Pain Scales for Pain Assessment

Pain Scales*	Verbal, Alert and Oriented	Non-verbal, GCS <15 or Cognitive Impairment
Adult	1. Verbal Numeric Scale (VNS)/ Numeric Rating Scale (NRS) 2. Visual Analogue Scale (VAS) 3. Defense and Veterans Pain Rating Scale (DVPRS)	1. Adult Non-Verbal Pain Scale (NVPS) 2. Assessment of Discomfort in Dementia (ADD) 3. Behavioral Pain Scale (BPS) 4. Critical-Care Observation Tool (CPOT)
Pediatric	**3 yo and older** 1. Wong Baker Faces 2. Oucher (3-12yrs) 3. Numerical Rating Scale (NRS) (7-11yrs) **8 yo and older** 1. Visual Analogue Scale (VAS) 2. Verbal Numeric Scale (VNS)/ Numeric Rating Scale (NRS)	**Birth – 6 mos** 1. Neonatal Infant Pain Scale (NIPS) 2. Neonatal Pain Assessment and Sedation Scale (N-PASS) 3. Neonatal Facial Coding System (NFCS) 4. CRIES **Infant and older** 1. Revised Faces, Legs, Activity, Cry, and Consolability (r-FLACC) 2. Non Communicating Children's Pain Checklist (NCCPC-R) 3. Children's Hospital of Eastern Ontario Pain Scale (CHEOPS) (ages 1-7)

Remember there are different types of pain…

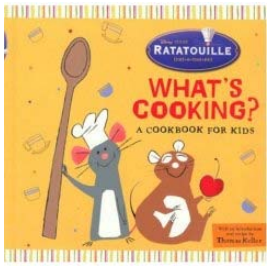
Classifications of Pain

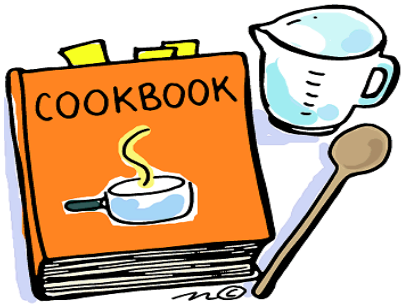
- Underlying Etiology
  - Nociceptive
    Inflammatory
    Neuropathic
    Psychogenic
- Anatomic Location
  - Somatic
    Visceral
- Temporal
  - Acute
    Chronic
    Acute on chronic
- Intensity
  - Mild
    Moderate
    Severe

Approach to Pain Management

Pain is complex and treatment should be individualized to the patient. A stepwise multimodal approach should be used for every patient, including the use of nonpharmacologic therapies.

No universal recipe or “cookbook” exists when it comes to managing pain.





Modalities for Treating Pain

- Pharmacologic (examples- ibuprofen, fentanyl, lidocaine patch, etc.)
- Interventional (examples- nerve block, trigger point injection, etc.)
- Nonpharmacologic (ice, distraction, physical therapy, virtual reality, and others)

Use a "Stepwise Approach to Pain"

PAMI's **Stepwise** Approach integrates nonpharmacologic and pharmacologic pain management methods to achieve safe effective pain control

Step 7. Monitoring & Discharge Checkpoint

Step 6. Management Checkpoint: Choose your "recipe(s)"

Step 5. Patient Assessment Checkpoint: Review history, assessment and risk factors

Step 4. Facility Checkpoint: Consider staffing and setting

Step 3. Family Dynamic Checkpoint: Who is with the patient?

Step 2. Developmental or Cognitive Checkpoint: What is the developmental stage of patient and is it normal for age?

Step 1. Situation Checkpoint: What are you trying to accomplish or manage?

For more information on the basics of pain and pain management, please refer to PAMI's module:

Basics of Pain Assessment and Management

2. Nonpharmacologic Pain Management

a. Cognitive-Behavioral Interventions

b. Physical (Sensory) Interventions

Renewed focus on nonpharmacologic pain management

The Opioid Epidemic has led to significant changes in pain management. These changes include a renewed emphasis on the use of opioid alternatives to treat pain, such as nonpharmacologic techniques.

Additionally, there is a push to reduce opioid initiation in patients who are opioid naïve and to encourage use of nonpharmacologic modalities and nonopioid medications. In certain scenarios, such as injury induced pain, burns and life limiting chronic pain, opioids cannot be avoided in pain management.

Barriers to Nonpharmacologic Therapies

- Perceived lack of time
- Emergent environment
- Unclear scientific information regarding effectiveness
- Lack of resources or equipment
- Lack of insurance coverage for procedures or services
- Lack of knowledge and familiarity of techniques by providers and staff
- Perception that patients will not be amenable to nonpharmacologic therapies

Benefits of Nonpharmacologic Pain Management

Nonpharmacologic pain management techniques (alone or as adjuncts):

- ✓ Provide better patient response and satisfaction
- ✓ Engage the patient/caregiver or family
- ✓ Decrease use and/or dose of opioids and other pain medications
- ✓ Decrease procedure time, length of stay and adverse events (especially in pediatric patients)

Patient pain primer: nonpharmacologic management

Painting Analogy

- Think of nonpharmacologic management as your “base coat” or “primer” before applying additional coats of analgesic treatment.
- With the right base coat foundation, you have a better chance of painting a patient’s symptoms a more tolerable and long-lasting new color.

PEM Playbook: http://pemplaybook.org/podcast/pediatric-pain/

How to Choose the Most Effective Interventions?

When deciding the most effective nonpharmacologic interventions, take into consideration the patient's:

- Age
- Developmental level
- Medical history and prior experiences
- Current degree of pain and/or anticipated pain association with a surgery, procedure, injury or illness

Nonpharmacologic interventions are relatively inexpensive and safe.

Stoplight Pain Scale ©2014 Booster Shot Media used with permission by Booster Shot Media and Amy Drendel, DO. For more information, please visit stoplightpainscale.com.

Some nonpharmacologic interventions are more amenable to certain situations and environments. However, interventions once thought to be unsuitable are now being studied as viable treatment options in multiple settings.

Options for **in-patient** settings:

- ✓ Heat/cold therapy
- ✓ Relaxation techniques (breathing exercises)
- ✓ Distraction (active and passive)
- ✓ Guided imagery
- ✓ Comfort positions
- ✓ Training and coaching
- ✓ Art, music and pet therapy
- ✓ Empathy from healthcare provider
- ✓ Splinting
- ✓ Conversation
- ✓ Comfort menus (sleep masks, noise machines, journaling, etc.)

Options for **outpatient** settings:

- ✓ Physical therapy
- ✓ Self-hypnosis
- ✓ Psychotherapy
- ✓ Biofeedback
- ✓ Aromatherapy, art, music and pet therapy
- ✓ Massage
- ✓ Acupuncture
- ✓ Spinal cord stimulation
- ✓ Compressions
- ✓ Transcutaneous Electrical Nerve Stimulation (TENS)
- ✓ Conversation and journaling
- ✓ Sleep aids

How are Nonpharmacologic Interventions Categorized?

Most interventions can be used for **children** and **adults**

Cognitive-Behavioral
Psychologic preparation and education
Distraction: movies, games, TV, apps, toys with light and/or sound, virtual reality
Relaxation techniques (breathing, meditation, etc.)
Music and singing
Guided imagery
Coaching
Conversation and therapeutic language

Physical (Sensory)
Trigger point injections or dry needling
Acupuncture
Pressure, massage
Comfort positioning
Cutaneous stimulation
Nonnutritive sucking or pacifier with sucrose solution
Splinting
Hot and/or cold treatments

Adapted from: Murray KK, Hollman GA. Non-pharmacologic interventions in children during medical and surgical procedures. In: Tobias JD, Cravero JP, eds. *Procedural Sedation for Infants, children, and adolescents*; Section on Anesthesiology and Pain Medicine. American Academy of Pediatrics ; 2016.

a. Cognitive-Behavioral Interventions

Cognitive-Behavioral
Psychologic preparation and education
Distraction: movies, games, TV, apps, toys with light and/or sound, virtual reality
Relaxation techniques (breathing, meditation, etc.)
Music and singing
Guided imagery
Coaching
Conversation and therapeutic language

Psychologic Preparation and Patient Education

Psychologic Preparation and Patient Education

- When preparing the patient and/or caregiver for a procedure, admission or process, consider the following:
  - Describe and establish expectations using the appropriate developmental level
  - Review what the patient will feel during the procedure or process
  - Outline the procedure/surgery/admission process and timing of events

Preparation is a key component of reducing pain and anxiety associated with procedures and other painful events.

Distraction

The Art of Distraction

Distraction is the most common type of cognitive-behavioral method.

It is an intervention that is often used to guide attention away from painful stimuli. ***It is most effective when adapted to the patient's developmental and cognitive level.***

Current research indicates that distraction can lead to **reduction** in procedure times and number of staff required for procedures, especially in children. Researchers hypothesize that children "cannot attend to more than one significant stimulus at a time."

Why use distraction?

Does not require advanced training for providers.

Works with children and adults.

Involves parents, families and caregivers during stressful times.

Distraction is most effective when pain is mild to moderate
(it is difficult to concentrate when pain is severe)

To Distract or Not to Distract…
That is the Question!

- Providing distraction vs. "planned alternative focus"
  - Distraction: Diverting the patient's attention to reduce anxiety due to medical environment.
  - ***"Planned alternative focus":*** Concept of using the patient's volition to successfully complete procedures for sense of mastery and ownership (Mohl & Goldberger, 2014).

- **Step 1-** Assessing patient and family members for optimal coping

Is family or caregiver anxiety feeding into the patient's?

Will family be a helpful, calm, supportive presence?

- **Step 2**- Ask whether the patient needs to have attention shifted from procedure or wants to take an active part. "*Would you like to watch the IV start or play 'I-Spy' instead?"*
  - Distraction example- Playing a game on the iPad or talking about family pets or favorite movie.
  - *Active Planned Alternative focus*: "Can you pick out your Band-Aid- Frozen or Star Wars?" "Can you please open this alcohol wipe and help me clean your arm?"

Mohl, A. & Goldberger, J. (2014). Child Life Council Bulletin, 32 (1).

Distraction versus Planned Alternative Focus

- Should not be seen as "tricking" the patient as this can result in a loss of trust

- Gives the patient a "job" and promotes sense of control over an appropriate aspect of the procedure

- Best if patient is involved in choosing the form of distraction to be used during the procedure

Mohl, A. & Goldberger, J. (2014). Child Life Council Bulletin, 32 (1).

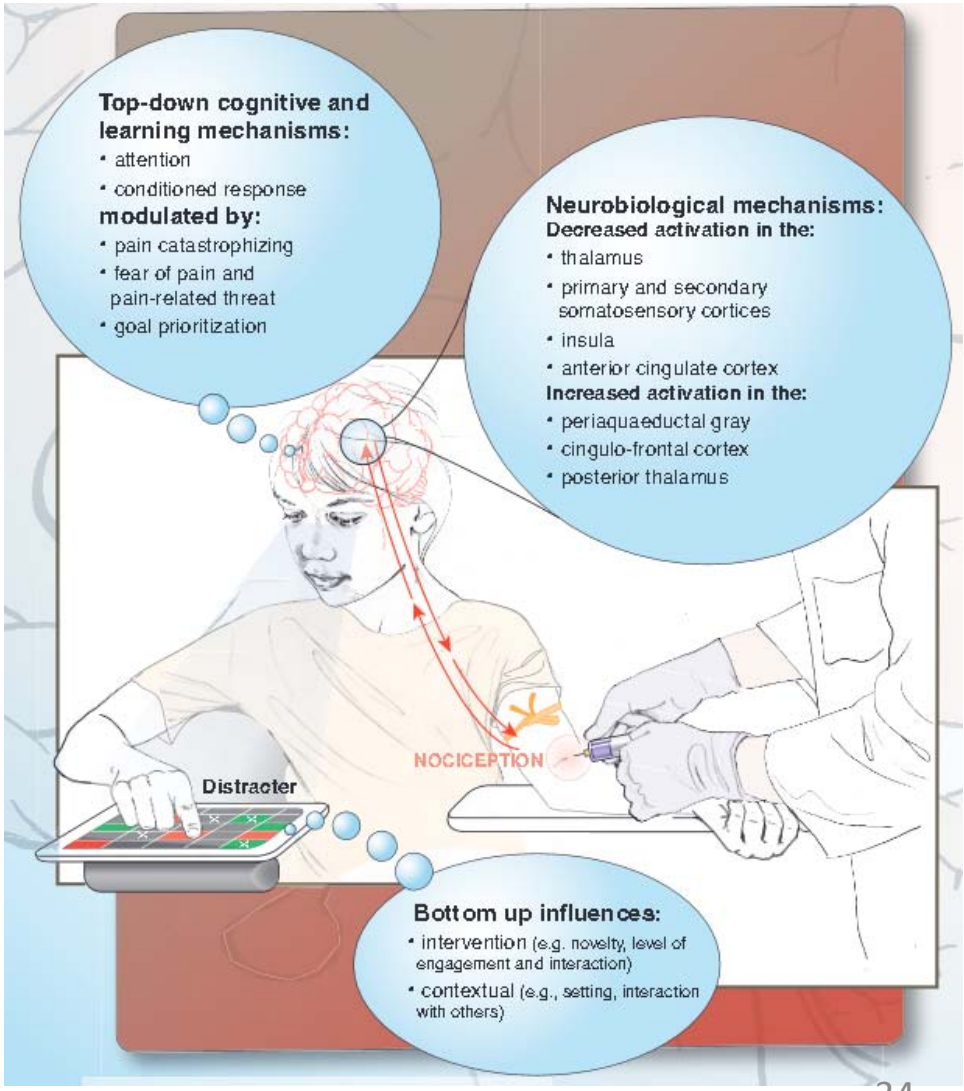
Mechanisms of Distraction

Theories discussing the **mechanism of distraction** for acute pain focus on utilizing distracters that will compete with the spatial and perceptual resources used to process pain.

Thus, distractions that are interactive and engage more senses should be more effective than uni-sensory methods.

Another goal of distraction is to reduce the involuntary attention given to pain (bottom-up process) by providing voluntary stimuli (top-up process).

Distraction may also interfere with the development of conditioned responses to painful or anxiety-provoking procedures or experiences.

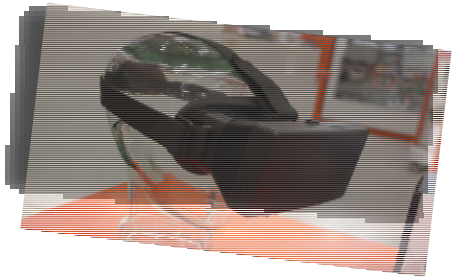


K.A. Birnie et al. Mechanisms of distraction in acute pain perception and modulation. Pain Journal 2017;158(6):1012-1013

Two Types of Distraction

1. **Passive Distraction** - attention is redirected to a stimulus or an object is presented by a healthcare professional
   - Showing a toy (kaleidoscope)
   - Storytelling
   - Singing songs
   - Listening to music

2. **Active Distraction** - encourage participation in activities during procedures
   - Blowing bubbles
   - Playing a game
   - Interacting with an electronic device
   - Virtual Reality



Tips

These types of distraction can be used on their own or combined together.

The ABC's of Distraction

A – Assorted visuals

B – Breathing techniques

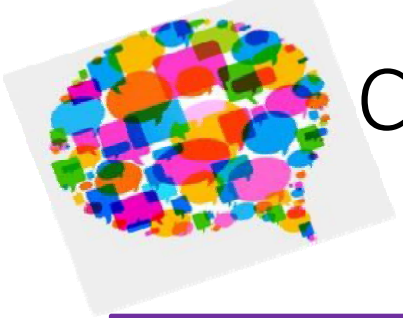
C – Comfort Positions

D – Diversional Talk

- Give a choice only when choices exist
- Limit number of voices

E – Encouragement and praise

- Specific - "You're doing a good job taking deep breaths" instead of "Good boy"



Conversation is a Type of Active Distraction

Conversation is a proven method of pain management and helps reduce anxiety and pain through distraction. Pain can be reduced by up to 25% through distraction alone.

Active distraction is better for managing pain and anxiety than passive distraction.

Distraction can change the physiological response of pain transmission in the spinal cord.

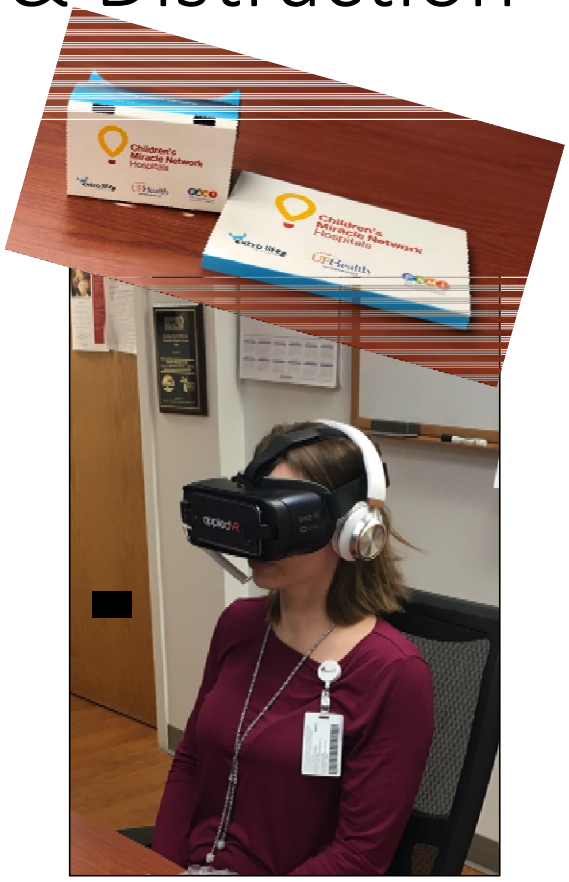
Conversation topic ideas: family, hobbies, vacation, sports

To learn more visit

https://www.jems.com/articles/print/volume-38/issue-7/patient-care/10-conversation-starters-alternative-pai.html

Virtual Reality for Pain Management & Distraction

- Engages patient in a 360°visual and auditory experience which removes primary focus from pain and/or anxiety.
- Headsets range from high tech, expensive options to inexpensive cardboard viewers.
- Type of viewer/equipment based on clinical setting
  - inpatient floor or outpatient infusion center is more controlled environment than ED or trauma setting
  - Multi versus single patient use
- VR has been studied for burn and wound care, infusion centers, procedures labor and delivery and other settings.



Virtual Reality (VR)

VR viewer assembly instructions

1) Slide VR viewer out of cardboard sleeve

2) Pop up the viewer into a rectangle & swing lens mask into tabs.

3) Swing down nose column into tab

4) Insert and secure mobile device or iPod

5) Scan the QR code on the viewer or download one of the FREE suggested apps.

Note: remove the lens protectors and use the cut-out slot to touch the screen if prompted.

DISTRACTION TOOLBOX

PAMI's Distraction Toolkit focuses on **nonpharmacologic pain management**. The free, downloadable toolkit includes topics such as a stepwise approach to pain management that incorporates pharmacologic and nonpharmacologic measures, therapeutic language, comfort positioning, coaching, distraction, guided imagery, and other physical/psychosocial modalities.

For free access materials and to learn how to build your own toolkit visit:

http://pami.emergency.med.jax.ufl.edu/resources/new-approaches-to-pain-course.

Scan here to download PAMI's Toolkit

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Follow us on twitter: @pami_painmgmt

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Virtual Reality (VR) Viewer Tutorial

VR (virtual reality) has proven to be effective in reducing pain and anxiety before, during and after procedures such as burn injuries, wound management, suturing and even patients experiencing chronic pain

Possible benefits include:

- Decreased pain and anxiety without medication.
- Reduced drug-related side effects.
- Enhanced treatment experience.
- Reduced perception of procedure/ wait times.
- Shorter recovery times.
- Increased patient satisfaction scores.

For questions or comments contact:

Emresearch@jax.ufl.edu

Suggested FREE Virtual Reality Apps

Ages 10 and Under:

VR Street Jump A remake of the classic Fogger road jumping game. Simply press the Cardboard trigger to jump and across the street! Look in the direction you want to go and hit the trigger!

Peronio Pop-Up Book Unlike any other interactive book around. Discover the adventures of Peronio, who can't decide what he wants to be when he grows up and follow him on his journey to explore various exciting challenges and mini games along the way

Cardio VR- Using Google Cardboard, enter a virtual reality doctor's surgery where you search for your patient's ailment using x-ray vision.

Lamper VR- In this VR runner game, you will find your way to safety through a series of tunnels through the eyes of a firefly bug called Lamper.

Alphabet Driver-A fun interactive game for toddlers and kids from ages 2 to 5. The object of the game is to collect items along the way. It is designed to improve fine motor skills and hand / eye coordination by tapping the objects before they disappear

Ages 11-17:

Surgery Simulator VR- Lots of patients in this hospital are waiting for your help! Something is wrong with their health – and you're the one who can treat them properly! Complete surgeries at this operation theater in VR with our Surgery Simulator VR

Final Kick VR- Enjoy the tense moments of the penalty shots as if you were playing in a Football final, making the most spectacular goals and saves all along with graphics that will make you feel as if you were actually in the match.

Germ Buster VR- Germs are spawned in waves and must be destroyed by shooting them with bubbles from the bubble gun. Avoid being slimed by germs and keep an eye on your high score!

VR X Racer– A UFO spaceship attacks our Earth— step up on a jet, fly up, and protect what belongs to us. The airway is very difficult and dangerous.

Cleanopolis VR- Your mission, if you accept it, is to fight against climate change and make sure the city of Cleanopolis gets rid of its CO_2 cloud. Assisted by your faithful companion named Toby, explore the 3D city and discover its districts.

Ages 18 and Up:

Welcome to Virtual Reality- Sit back and relax as you are whisked away on a guided journey, in which you will experience the key elements of virtual reality.

Dunk Tank VR- A new guided meditation experience in VR. In this app, you find a little peace and quiet on a beautiful VR hillside while our narrator walks you through a simple exercise in guided meditation.

Anatomyou– Using VR, you will be able to navigate along anatomical structures, becoming part of the human anatomy.

Sygic Travel VR– The world's largest database of virtual reality travel content in "ALL DESTINATIONS" section with more than 5000 unique 360° travel videos and photos.

Fantastic Voyage VR– This VR medical animation draws you inside the human body where you fly through a beating heart, travel through the cerebral cortex, and float up the "glass aquarium" like abdominal vein.

To learn more about how you an incorporate VR into your healthcare setting visit: https://com-jax-emergency-pami.sites.medinfo.ufl.edu/files/2018/06/VR-Tutorial-Trifold-Pamphlet.pdf

Relaxation Techniques

Relaxation Techniques

Goal of relaxation technique is to produce the relaxation response,
"a physical state of deep rest that changes physical and emotional responses to stress"
(e.g. decreased heart rate, blood pressure, rate of breathing, and muscle tension)

Progressive Muscle Relaxation (PMR)

- Helps patients recognize difference between tensed and relaxed muscle groups

How to Use

- In a calm voice, instruct patient to tighten and relax muscles. Start with the forehead and gradually move down the muscle groups in the body. Example: Forehead, jaw, shoulders, back, front of legs, etc.
- This technique can be effective as a distraction from pain and may reduce subjective pain intensity.

Diaphragmatic Breathing (Belly Breathing)

- Patients breathe through their bellies instead of their chest and count slowly with each breath in and out to a predetermined number. This works best with at least 8 breaths per minute.

How to Use

- Instruct the patient to place hands on abdomen and watch their hands rise and fall with each breath. Seeing their hands move up and down provides the patient with instant feedback.

Music Therapy

Music Therapy

Beneficial in reducing pain, anxiety and stress in EDs, waiting or hospital rooms, procedure rooms, and during transport.

- Music may have a positive impact on pain and distress for children and adults undergoing medical procedures.
- Music therapy additionally benefits family and health care providers caring for the anxious patient.
- Many larger hospitals have music therapists or volunteers
  - -Consider asking for scheduled time in your area
- Additionally benefits family and health care providers caring for the anxious patient

The Benefits of Music

Multiple research studies have investigated the role music plays on pain and stress.

For Example:

- In patients undergoing IV placement, music has a positive impact on pain and may reduce distress.
- Patients experience less distress and lower pain scores when they listen to music during procedures.

- Music is an easy and useful way to decrease the anxiety of visitors in waiting area.
- **Ways to implement:**
  - Play in waiting areas
  - Have patient select music from available electronic devices- keep a supply of disposable headphones or earbuds

NPR: Reach for Your Playlist Instead of Popping a Pill.

A 2015 study found that children who choose their own music or audiobook to listen to after major surgery experience less pain.

For the full article visit:

http://www.npr.org/sections/health-shots/2015/06/22/415048075/to-ease-pain- reach-for-your-playlist-instead-of-popping-a-pill

Guided Imagery

Guided Imagery

- Guided imagery helps patients use their imagination to divert thoughts from the procedure to a more pleasant experience.
  - Designed to develop a vivid image involving all senses.

- Imagery provides distraction and reduces the perception of pain by eliciting descending signals from the brain that can help block the pain signals

Guided imagery may also be effective in reducing anxiety and pain in adults.

Guided Imagery: Three Options

The goal is to help the patient use their imagination to create a descriptive story. Ask questions about a favorite place, upcoming events or vacations to keep the patient engaged.

- **Option 1- Instruct patient to visit a "relaxing" place, and change the image of pain or turn off pain with a "pain switch" in the brain. Ask the patient to locate the pain switch and turn down the level of pain to a more comfortable level.**

- **Option 2- Ask the patient to identify a "pain" color and a "comfort" color. Then, ask to the patient to breathe in the "comfort" color and breathe out the "pain" color. Or-Ask the patient to associate their pain with a color. Instruct the patient to view the painful part of their body in that color. Tell the patient to imagine shrinking, fading or dispersing the painful color, or even sending it away in a balloon.**

- **Option 3- Symbolic imagery can be used in adults and adolescents. For example, if a patient with severe arthritis pain presents complaining of pain in one joint, ask them to think about how the pain feels. Does it feel like a knife? If so, ask them to imagine pulling the knife out and throwing it away. Focusing on an affirmation can also help. "I am removing the knife and throwing it away".**

Training and Coaching

Role of Caregivers or Parents: How Can They Assist the Healthcare Provider?

Caregivers or parents can assist in coping with painful procedures or experiences by engaging the patient through **interaction** and **distraction**.

- For example, singing, reading or holding a patient's hand.

The ability to provide assistance to the patient will depend on their individual comfort level. Ask the patient if you can help improve their comfort level.

Parents and caregivers may be anxious or worried when their loved one is injured or in pain.

Healthcare providers may want to direct extremely anxious or distraught parents, caregivers or visitors to wait outside the room during a procedure or exam.

How Can Caregivers or Parents Assist the Healthcare Provider?

- Healthcare providers should:
  - ✓ Coach and prepare the parents & caregivers for the procedure, exam, transport, etc.
  - ✓ Initially discuss the procedure away from children
  - ✓ Discuss how they can assist in their loved one's coping ability
  - ✓ Instruct patient based on cognitive and development level
  - ✓ Utilize distraction techniques
  - ✓ Avoid negative or vague language

The next slide reviews suggested language for healthcare providers, parents and caregivers

Table: Suggested language for caregivers, parents and healthcare providers

Language to Avoid	Language to Use
You will be fine; there is nothing to worry about (reassurance)	What did you do in school/work today? (distraction)
This is going to hurt/this won't hurt (vague; negative focus)	It might feel like a pinch (sensory information)
The nurse is going to take some blood (vague information)	First, the nurse will clean your arm, you will feel the cold alcohol pad, and next… (sensory and procedural information)
You are acting like a baby (criticism)	Let's get your mind off of it; tell me about that movie…(distraction)
It will feel like a bee sting (negative focus)	Tell me how it feels (information)
The procedure will last as long as… (negative focus)	The procedure will be shorter than… (television program or other familiar time for child); (procedural information; positive focus)
The medicine will burn (negative focus)	Some people say they feel a warm feeling (sensory information; positive focus)
Tell me when you are ready (too much control)	When I count to three, blow the feeling away from your body (coaching to cope; distraction limited control)
I am sorry (apologizing)	You are being very brave/strong (praise; encouragement)
Don't cry (negative focus)	That was hard; I am proud of you (praise)
It is over (negative focus)	You did a great job doing the deep breathing, holding still… (labelled praise)

Adapted from Krauss et al. Current concepts in management of pain in children in the emergency department. The Lancet. 2015:1-10. https://doi.org/10.1016/S0140-6736(14)61686-X and Cohen LL. Behavioral approaches to anxiety and pain management for pediatric venous access. Pediatrics 2008; 122 (suppl 3): S134–39.

Therapeutic Language – 12 Tips

1. Ask about and acknowledge the pain

2. Recognize the value of listening
   (hard to do in a noisy ED or ambulance)

3. Pace the process respectfully
   (may be difficult in emergent situation)

4. Define pain by framing it with hope not doom

5. Avoid negative words and those that conjure fear

6. Reframe the patient's distress

Adapted from: Lenora Kuttner, PhD. A Child in Pain-What Health Professionals Can Do to Help. 2010

Therapeutic Language – 12 Tips

7. Replace pain-loaded words with more tolerable words

8. Draw on language or words that have worked for you

9. Note the parts of the body that are not in pain

10. Use language that implies positive change

11. Let patient know that what they are experiencing is normal and not life-threatening or result of a terrible disease (if true)

12. Remind patient that pain will come to an end (if true)

Adapted from: Lenora Kuttner, PhD. A Child in Pain-What Health Professionals Can Do to Help. 2010

Cognitive-Behavioral Interventions

Example of a poster reminding providers of ways they can encourage their patients.

Download your own copy here!

*Used with permission from the UF Health Jacksonville's Child Life Program

ONE VOICE- Procedure Tips

ONE VOICE

One voice should be heard during the procedure.

Need for parental involvement.

Educate the patient before the procedure about what is going to happen.

Validate a child with your words.

Offer the patient the most comfortable, non-threatening position.

Individualize your game plan.

Choose appropriate distraction/coping techniques to be used.

Eliminate unnecessary staff who are not actively involved with the procedure.

b. Physical (Sensory) Interventions

Typically are patient specific, used during the procedure/process and inhibit nociceptive input and pain perception.

Physical (Sensory)
Trigger point injections or dry needling
Acupuncture
Pressure, massage
Comfort positioning
Cutaneous stimulation
Nonnutritive sucking or pacifier with sucrose solution
Splinting
Hot and/or cold treatments

Pain Assessment and Management Initiative

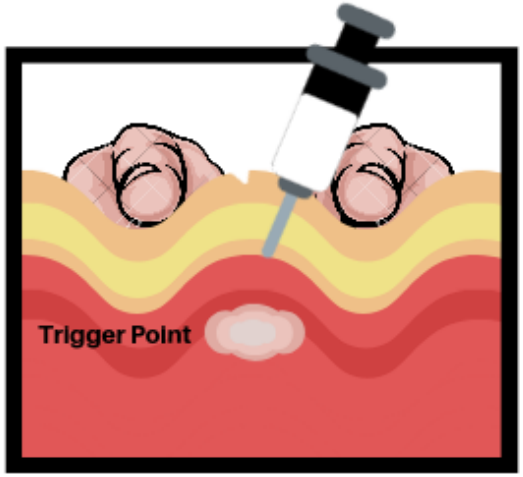
Nonpharmacologic Procedures

Trigger Point Injections
Medical Auricular Acupuncture
Massage and Acupressure

Trigger Point Injections (TPIs)

Trigger point injections are intended to ameliorate or reduce pain arising from painful "knots" in the muscle or fascia particularly in the:

- Arms
- Legs
- Lower back
- Neck



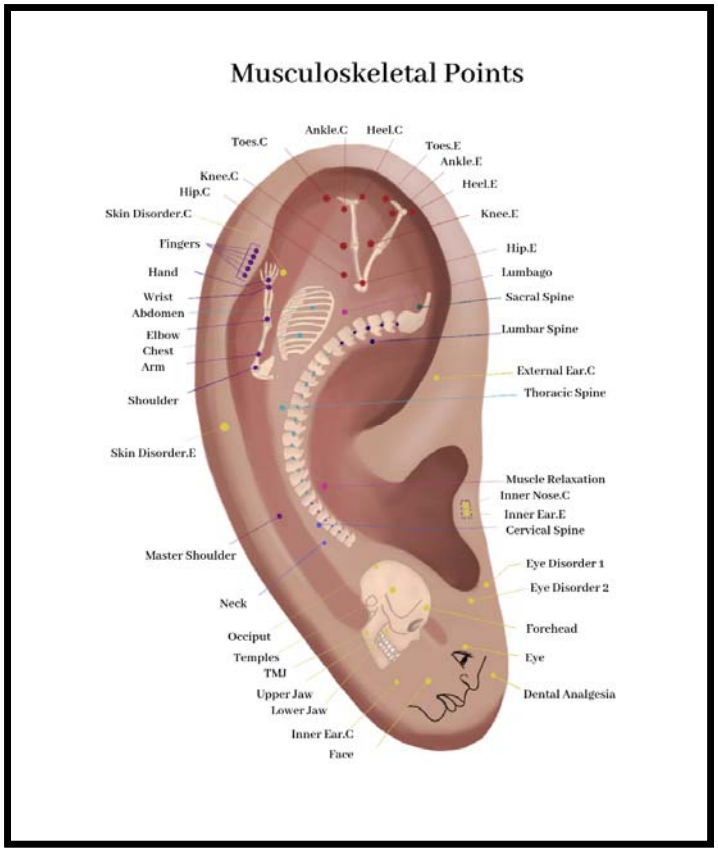
This procedure disrupts the "knot" allowing the tissue to relax. It has also been used to treat fibromyalgia, tension headaches, and myofascial pain.

TPIs that do not use local anesthetics as part of the procedure is referred to as "*dry needling*."

TPIs are quick procedures with relatively little risk. Potential complications include bleeding and infection at the site.

Medical Auricular Acupuncture (Auriculotherapy)

- Based on the principle that a person's life force travels along 12 meridians (or pathways).
  - All 12 of these pathways pass through the ear
- Auriculotherapy utilizes the ear as a homunculus
  - With each part of the body corresponding to specific points on the ear
- May have a role in treating:
  - Headaches
  - Chronic back pain
  - Asthma
  - Anxiety
  - Dental pain
  - Substance abuse
  - PTSD
- Treatments take less than 20 minutes and provide pain relief for days to weeks.



Graphic by Aliza Williams

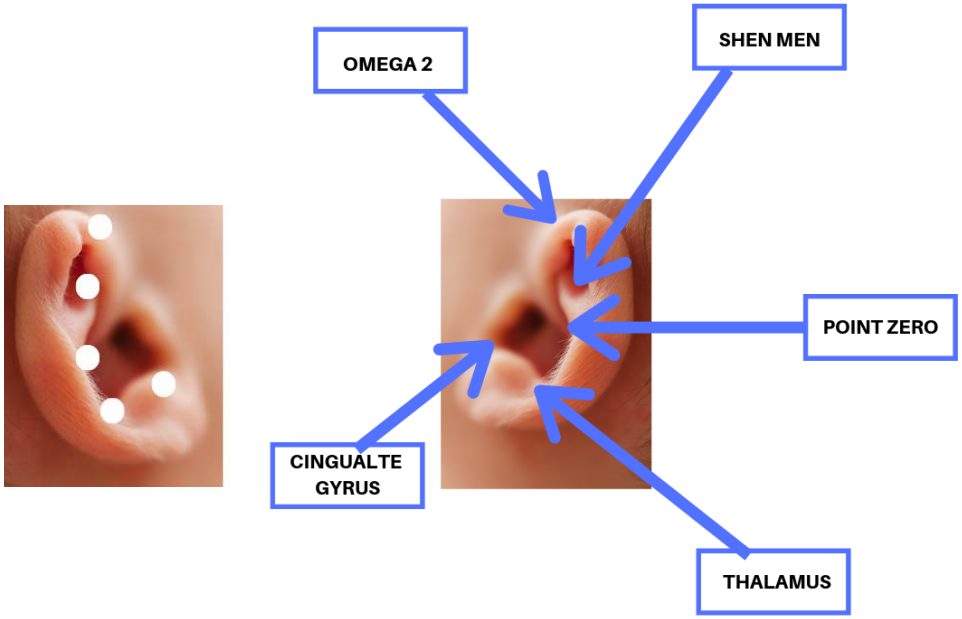
Examples of Medical Auricular Acupuncture Protocols

Battlefield Acupuncture

Cingulate gyrus, Thalamus, Omega 2, Point Zero, Shen Men

Auricular Trauma Protocol

Master Cerebral, Amygdala, Hypothalamus, Hippocampus, Insula, Vagus, Point Zero, Shen Men



Battlefield Acupuncture Protocol sites

Medical Auricular Acupuncture

Supporting literature concludes:

- Acupuncture is safe and effective for treatment of:
  - Chronic pain
  - Including back pain
  - Osteoarthritis
  - Chronic head aches
  - Shoulder and neck pain

- Acupuncture should be considered for migraine prevention and treating episodic or chronic tension headaches.

Precautions and Warnings

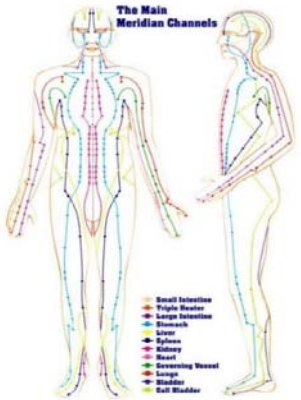
Do not use in pregnant patients

Use caution in patients with bleeding disorders or who are anticoagulated

Massage and Pressure

- **Massage** is a useful tool that reduces pain. It can be paired with other nonpharmacologic and pharmacologic techniques to improve patient outcomes.
- Massage can
  stimulate blood flow,
  relax tight muscles and muscle spasms,
  promote a feeling of well-being.
- **Risks**
  1. patients with blood clots or deep vein thrombosis
  2. possible nerve damage
  3. infectious skin conditions

- **Acupressure** refers to the stimulation of specific points of the body by using finger pressure.
  - This technique has been recognized by many organizations including the World Health Organization, National Institute of Health and American Medical Association.



Comfort Positioning

Comfort Positioning

Comfort positions are used to reduce stress and anxiety, especially in children and adults with dementia or who are developmentally delayed.

- Why use positioning for comfort?
  - Sitting position promotes sense of control
  - Reduces anxiety which promotes better cooperation
  - Puts patient in a secure, comforting hold
  - Promotes close, physical contact with a caregiver
  - Provides caregiver with an active role in supporting child in a positive way
  - Comfort positioning may be prohibited in trauma patients requiring neck or spine immobilization and during transport

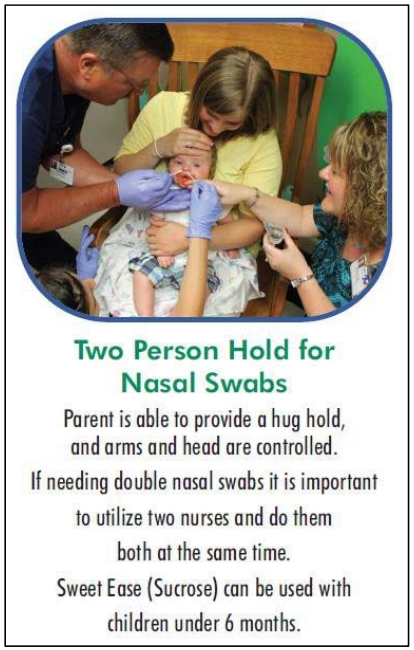
Tips

Consider using comfort positioning during procedures (e.g., IV placement or vaccinations)

Additional Positions

Visit the PAMI website to learn more information about comfort positions for the patient.

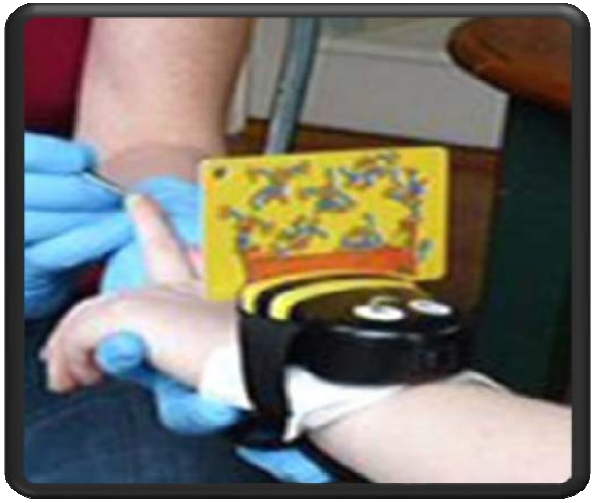
http://pami.emergency.med.jax.ufl.edu/resources/educational-materials/non-pharmacological-treatment-of-pain/



Cutaneous Stimulation

Cutaneous stimulation

- Rubbing or vibration
- Applying localized pressure
- Skin to skin contact with mother or breastfeeding during a procedure reduces pain behaviors associated with painful stimuli.



Cutaneous stimulation- Buzzy®

- Buzzy is a vibrating palm-sized device with removable ice wings. It has been studied for injections, IVs, and phlebotomy and gives similar pain relief as topical analgesic cream or spray.
- Vibration and ice create different sensations and uses the ***Gate Control Theory**** concept. This is similar to a dentist jiggling the jaw before a dental block.

For more information visit
https://buzzyhelps.com/

*The *Gate Control Theory* will be discussed on the following slide.

Gate Control Theory of Pain

- In order to help control the "gate" of pain, other tools can be utilized to distract/"trick" the skin or body to focus on additional sensations, such as alternative focus, cold or vibration, to minimize the sensation of the pain.

- The proposed mechanism of action employs the gate control theory utilizing ice and vibration to block pain sensation. This mechanism leverages the sensation of touch to compete with the sensation of pain during transmission to the brain, resulting in less pain.

- This technique is often referred to as providing "white noise."

Non-nutritive sucking

Non-nutritive sucking

- The use of a pacifier often in conjunction with sucrose has been shown to have an analgesic effect in neonates undergoing routine venipuncture.

- It may reduce crying in infants < 6 months of age.

- Neonates have a positive psychological response (lowering of pain scores, cry duration, and heart rate variation) to oral stimulation and physical contact or touch during painful procedures.

Hot or Cold Treatments

Heat Therapy

- Heat acts by:
  - Increasing blood flow to skin
  - Dilating blood vessels
  - Increasing oxygen and nutrient delivery to local tissues
  - Decreasing joint stiffness by increasing muscle elasticity

- Several studies have shown reduction in pain, anxiety, nausea and heart rate in patients treated with ***active warming*** for pain related to mild trauma, cystitis, urolithiasis, cholelithiasis, appendicitis, colitis and rectal trauma.

- Heat should be applied in 20 minute time periods to affected body areas.

Heat Therapy: Options and Considerations

Options for heat therapy: Beware of extreme heat and burns

- Hot packs
- Hot and moist compresses
- Electric heating pads
- Microwavable packs
- Wrapped chemical and gel packs
- Submerge pain body part into a warm bath

When to AVOID heat therapy:

- Infants
- Older adults*
- Pregnant women
  - *Avoid hot tubs or situations that expose developing fetus to prolonged heat*
- Individuals who have received radiation therapy
- Conditions impairing a patient's sensation (spinal cord injury, diabetes, etc.)

*especially those with neuropathic pain or peripheral arterial disease as heat or cold may cause altered sensation in the extremities and tissue damage.

Cold Therapy

Cold therapy consists of applying a cool material or device to any part of the body.

- When applied to the affected area, blood vessels constrict near the skin which can:
  - Reduce swelling when applied right after an injury
  - Relieve pain of muscle spasm or muscle tension

Multiple studies have reported that cold treatment may increase pain threshold, reduce edema and control the inflammation process

Cold compresses may be used between 15-30 minutes time periods and two to three times per day

Cold Therapy: Options and Considerations

Cold therapy options include:

- Ice packs
- Cold gel packs
- Towels soaked in ice water

These therapy options should be

- Completely sealed to prevent dripping,
- Flexible so they can conform to the patient's body
- Properly wrapped to prevent damage or irritation to skin

Tips

Especially useful for sprains and fractures. An easy way to provide fast, nonpharmacologic relief!

When to Use Ice vs. Heat Therapy

- Cleveland Clinic Infographic
  - http://health.clevelandclinic.org/2014/08/should-you-use-ice-or-heat-for-pain-infographic/

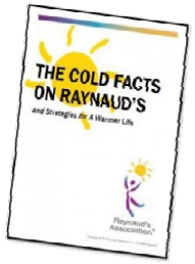
Benefits Of Keeping Patients Warm

- All patients prefer to be at a comfortable temperature. Healthcare settings are often cold, drafty, and without blankets.
- Cold exposure is especially important in patients with Raynaud's syndrome or disease, collagen vascular diseases like Lupus and Scleroderma, elderly patients, and those on cardiovascular and blood thinning medications.
- Most hospitals and EDs keep a supply of warm blankets or warm fluids.

Common Raynaud's Symptoms

Raynaud's Disease and Pain

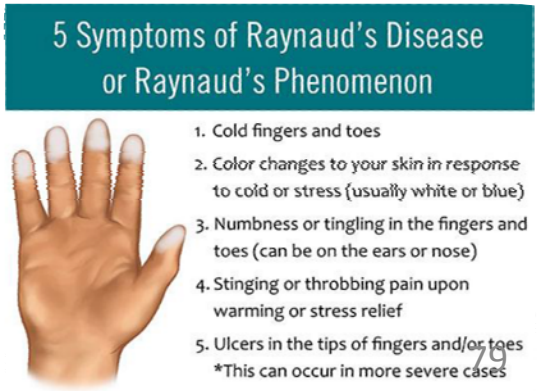
- Raynaud's disease is a condition that causes blood vessels in the fingers, toes, nose, and ears to go into vasospasm and become constricted in response to cold temperatures or stress or even by a shift in temperature from warm to cool.



- Approximately 5-10% of the general population has primary or secondary Raynaud's Disease or symptoms.

- A cold-induced Raynaud's attack can be very painful and lead to further chronic disease and anxiety.

- Patients may need access to warm water and blankets.



3. Pediatric and Special Populations

Many of the interventions previously reviewed can be used in special populations such as pediatrics and adults with dementia or who are developmentally delayed.

In the next section we will introduce pain concepts and discuss nonpharmacologic management options based on developmental levels or stages.

See **Pediatric Pain Management** learning module for more information.

Patient Factors

Assessing pain in certain special populations can be challenging and requires multiple considerations such as:

- Age of child
- Level of development
- Communication skills
- Cognitive skills
- Prior pain experiences
- Associated beliefs

Cognitive Development

- In patients who are cognitively immature or impaired, consider **physical comfort** measures and **distraction** activities which can be **more effective** than verbal reasoning in helping to control their distress.
- Remember, children do not have sufficient cognitive development to understand the perspective of strangers trying to reassure them until the age of 5-7 years.
- The stepwise approach to nonpharmacologic pain management discussed previously is especially important in special populations.
- The next slide includes a summary table of responses to pain by developmental stage.

Understanding of Pain, Behavioral Responses, and Verbal Descriptions by Developmental Stage

Age Group	Understanding of Pain	Behavioral Response	Verbal Description
		Infants	
6 months	No understanding of pain; is responsive to parental anxiety	Generalized body movements, chin quivering, facial grimacing, poor feeding	Cries
6–12 months	Has a pain memory; is *responsive to parental anxiety*	Reflex withdrawal to stimulus, facial grimacing, disturbed sleep, irritability, restlessness	Cries
		Toddlers	
1–3 years	Does not understand what causes pain and why they might be experiencing it	Localized withdrawal, resistance of entire body, aggressive behavior, disturbed sleep	Cries and screams, can't describe intensity /type of pain; *Use words for pain such as owie and boo-boo*
		Preschoolers	
3–6 years (preoperational)	Pain is a hurt; Does not relate pain to illness; may relate pain to an injury; *Often believes pain is punishment;* Unable to understand why a painful procedure will help them feel better or why an injection takes the pain away	Active physical resistance, directed aggressive behavior, strikes out physically and verbally when hurt, low frustration level	Has language skills to express pain on a sensory level; Can identify location and intensity of pain, denies pain, may believe his or her pain is obvious to others
		School-Age Children	
7–9 years (concrete operations)	Doesn't understand cause of pain; Understands simple relationships between pain and disease and need for painful procedures to treat disease ; May associate pain with feeling bad or angry; recognize psychologic pain related to grief and hurt feelings	Passive resistance, clenches fists, holds body rigidly still, suffers emotional withdrawal, engages in *plea bargaining*	Can specify location and intensity of pain and describes pain physical characteristics in relation to body parts
10–12 years (transitional)	Better understanding of relationship between an event and pain; More complex awareness of physical and psychologic pain,(moral dilemmas , mental pain)	May pretend comfort to project bravery, *may regress with stress and anxiety*	Able to describe intensity and location with more characteristics, able to describe psychologic pain
		Adolescents	
13–18 years (formal operations)	Has a capacity for sophisticated and complex under-standing of causes of physical and mental pain; Recognizes pain has qualitative and quantitative characteristics; *Can relate to pain experienced by others*	Want to behave in socially acceptable manner -like adults; controlled response; May not complain if given *cues* from other healthcare providers	More sophisticated descriptions with experience; may think nurses are in tune with their thoughts, so don't need to tell nurse about their pain

Nonpharmacologic Pain Management in Special Populations

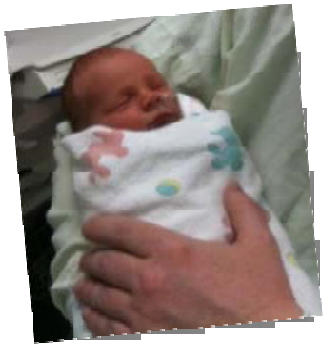
- Nonpharmacologic interventions are excellent adjuncts in other special populations including:
  - Adult patients with autism or developmental delay
  - Chronically ill patients that have undergone numerous past painful experiences
  - Patients with anxiety or mental disorders
  - Chronic pain patients or patients on high dosages of opioids

Pediatric Nonpharmacologic Management by Developmental Level

Infants → Toddler → Preschooler → School Age → Child Adolescent

Nonpharmacologic Management: Infants

- Swaddling
- Holding
- Rocking
- Sucking
  - Sucrose pacifier (Sweet-Ease 24% sucrose solution)
  - Non-nutritive sucking



- Dim lighting
- Music
- Toys
  - Key chains
  - Rattles
  - Blocks

Nonpharmacologic Management : Toddlers

- Music
- Provide light touch or massage
- Repositioning, splinting
- Apply cold or hot pack
- Offer play with blocks, toys
- Drawing with crayons and paper
- Picture reading
- Singing
- Blowing bubbles

Nonpharmacologic Management : Toddlers

The Power of Distraction!

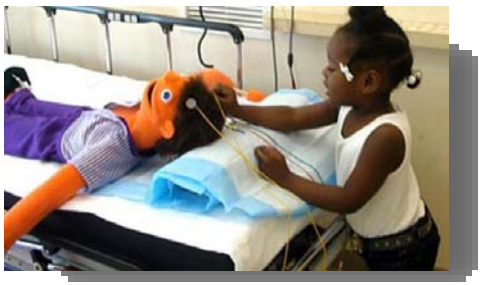
It Doesn't Have to Hurt: Distraction
https://www.youtube.com/watch?v=KgBwVSYqfps

Baby Getting Shots
https://www.youtube.com/watch?v=MOOxpT9q2mo

Nonpharmacologic Management : Preschoolers

- Calm environment
- Provide a position of comfort
- Provide light touch or massage
- Suggest music or TV to entertain
- Coach about processes and procedures
- Draw in coloring books
- Play with puzzles
- Look at or read storybooks
- Encourage singing or storytelling
- Hold cold or hot pack
- Engage in distracting conversation

Role playing



Nonpharmacologic Management: School Age Child

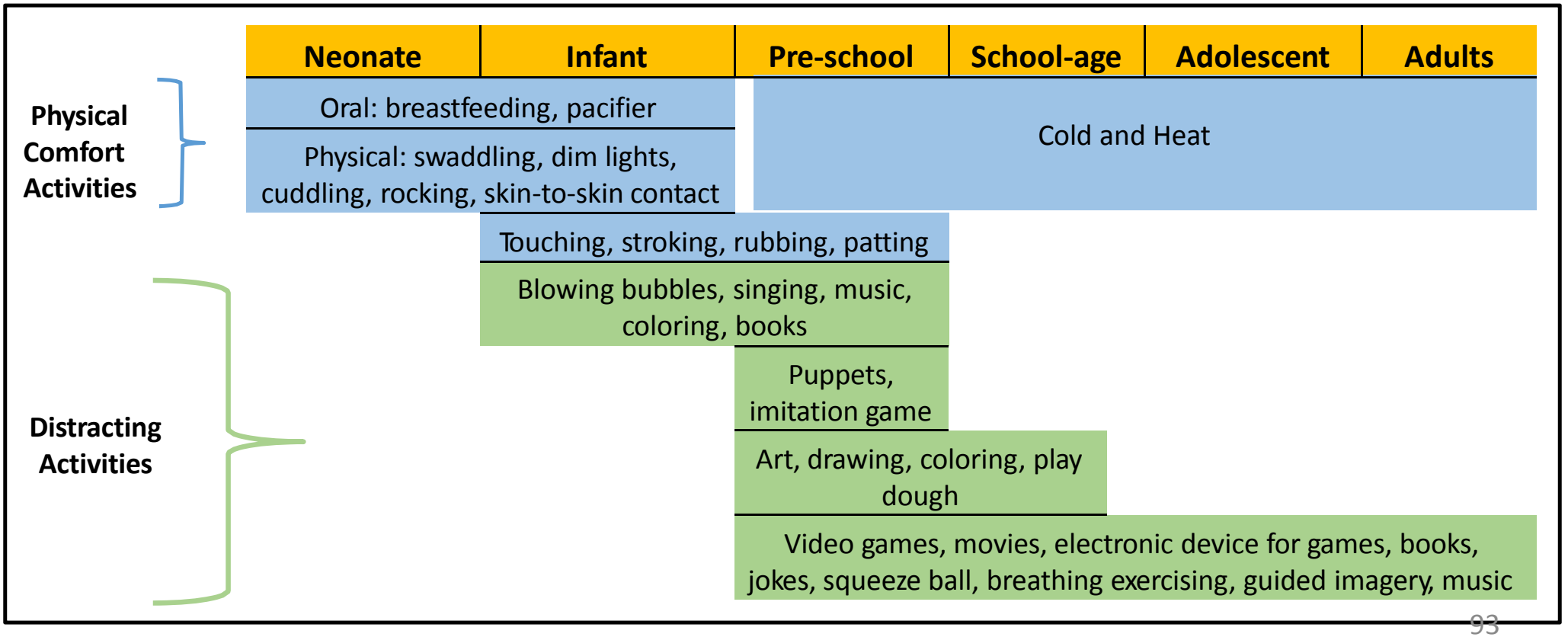
- Calm environment
- Suggest new positions for comfort
- Suggest music, movies
- Read books
- Coach child through the process and/or procedures
- Share jokes
- Provide light touch or massage
- Hold cold or hot pack
- Demonstrate relaxation techniques such as breathing exercises
- Use squeeze balls
- Encourage conversation about favorite things
- Play with electronic tablet/wireless internet device

Nonpharmacologic Management : Adolescent

- Apply cold or hot pack
- Suggest repositioning or positions of comfort
- Encourage talking about favorite places or activities
- Provide light touch or massage
- Listen to music
- Read
- Use squeeze balls

- Coach about processes and procedures
- Discuss preferred relaxation techniques
- Demonstrate relaxation techniques, if unfamiliar
- Encourage making choices
- Play with electronic games or tablets

Overview of Nonpharmacologic Management Options by Age



Child Life Services

Child Life Specialists are professionals who provide developmental, educational and therapeutic interventions for children and their families.

- Hospitals and clinics with significant pediatric volumes often employ child life specialists.
- Consider having other healthcare providers learn certain child life techniques.

With appropriate support, preparation, distraction, and pain management (i.e., topical analgesic), a young child may be capable of remaining still for minor procedures with minimal sedation and/or restraint.

4. Incorporating Nonpharmacologic Management into Practice

Incorporating Nonpharmacologic Management into Practice

- Nonpharmacologic management may be used to supplement or complement pharmacologic treatment for pain relief. Many of these interventions are easily performed by patients at home for little to no cost.
- **Prescribed medications** treat somatic (physiological and emotional) dimensions of pain, while **nonpharmacologic** interventions are useful in treating the affective, cognitive, behavioral and socio-culture aspects of pain.

Remember, when prescribing nonpharmacologic interventions, it is important to discuss **ALL** possible positive and negative outcomes with patients and other healthcare providers!

Build a Distraction Toolkit!

There are several ways you can use distraction in your clinical practice. Creating a 'toolkit' of carefully selected tools from both the cognitive/behavioral and physical interventions allows for optimal effectiveness.

For more ideas and resources and to download your own toolkit visit
http://pami.emergency.med.jax.ufl.edu/resources/distraction-toolkit/

Example of a Nonpharmacologic, Distraction & VR Toolkit

LED-animal noise keychains

"Toolbox" or toolkit contents should not contain small parts and must be disposable or easy to disinfect.

Pacifier +/- Sucrose Solution

Wikki Stix

Liquid-in-motion

Hot or cold packs

Glitter wand

Virtual Reality Goggles

PAMI 3.0 Pain Assessment and Management Initiative

Distraction Tools: Safety Considerations

- **Infection Control**
  - For items that are individual use: patient keeps or disposes of the item (pacifiers, teethers, Wikki Stix, ice packs, cardboard VR viewers, etc.)
  - For multiple use items: ensure item can be sanitized using local policies
- **Choking Hazards**
  - Make sure item is age and developmentally appropriate
  - No small pieces or easily breakable toys (<3 years or older if developmentally delayed)
  - Ensure items with gel or liquid ingredients are nontoxic
- **Use caution in:**
  - Extremely anxious parents
  - Cases involving abusive behavior
  - Patients with suicidal tendencies or mental illness
  - Children/delayed adults with no caregiver present
- **Distraction tools may pose a hazard to other children in the patient's room**

For PAMI's pilot Nonpharmacologic and Distraction Toolbox course materials and additional resources on how to implement a similar program in your institution visit:
http://pami.emergency.med.jax.ufl.edu/resources/distraction-toolkit/

5. Case Scenario Discussion

Adult Case Scenario 1

Rescue arrives at the residence of an 85 year-old female who fell down the stairs in her home. Medics perform a quick assessment and determine that her left ankle is swollen and tender. She appears anxious and in pain. Her pain is reported as a 10/10.

They immobilize her ankle and establish an IV. During transport the patient begins to cry and states “now my children will make me move out of my house and go into a nursing home”.

What other treatments and techniques can be used to address this patient’s anxiety and pain in addition to IV medications?

Adult Case Scenario 1: Discussion

Nonpharmacologic interventions to consider include:

- distraction,
- splinting,
- elevation of the affected extremity.

- Interactive distraction has been shown to reduce anxiety up to 25%.
- Distraction through conversation can be used while performing the secondary assessment during transport to the hospital.
- Conversation starters include family, hobbies, pets, etc. Explain where you are taking the patient and offer to call a family member or friend.

The patient is handed off to the ED team. Treatments and techniques started in the field are continued in the ED and the patient's anxiety and pain improves to a 2/10.

Pediatric Case Scenarios 2 and 3

Scenario 2:
A 3 year old boy presents to ED triage with a history of running into the edge of a glass coffee table and hitting his head. He has a laceration on his forehead that is bleeding. His mother is trying to calm him and apply pressure to his wound. The child begins screaming and thrashing when he sees the nurse and doctor.

Scenario 3:
A 2 year old presents to his pediatrician's office for his well child visit and to update his vaccinations. The child who had been playing in the room begins to cry and pull away when he sees the vaccine needle.

What can be done to help calm these children?

Pediatric Case Scenarios 2 and 3: Discussion

The following nonpharmacologic interventions can be helpful when dealing with anxious children who also may be in pain:

1. **Interactive distraction-** showing a lighted toy, singing a song, blowing bubbles.
2. **Comfort positioning-** allowing the child to be held by the caregiver.
3. **Using developmentally-sensitive language**— "*You are brave*" (offers praise and encouragement) instead of " *I am sorry*" (exacerbates distress) or "*Don't cry*."

Pediatric Case Scenarios continued

Scenario 2: The ED staff uses these techniques to calm the child and the mother allowing them to perform a full trauma assessment. They find additional injuries and concern for abuse/neglect.

Scenario 2: The medical assistant utilizes comfort positioning, distraction, developmentally-sensitive language, and an ice pack to the vaccine area reducing both the child's and parent's anxiety.

Pediatric Case Scenario 2… continued

Upon completing the ED triage assessment, the nurse states to the ED physician (in front of the patient and family)- "*Those cuts are pretty deep, going to need a lot of stitches. Don't worry, you won't feel anything after we numb you up…*".

Is this language developmentally-sensitive?

What unintended consequences may occur?

Other than local injections, what other treatment options could be used in this case?

Pediatric Case Scenario 2: Additional Discussion

- As mentioned previously, use of developmentally-sensitive language can help **reduce** and **prevent anxiety**. Words or phrases that are comforting to parents or an older child, may produce fear and anxiety in a younger child.
- The healthcare team's language may produce the opposite effect and worsen the child and/or parent's anxiety.

- For procedures, intranasal and/or topical medications could be used in this child along with distraction or guided imagery to repair the laceration without subjecting him to the pain and anxiety of IV placement and procedural sedation.

Krauss BS, Krauss BA, Green SM. Managing procedural anxiety in children. N Engl J Med. 2016;374(16):e19. doi: 10.1056/NEJMvcm1411127

Adult Case Scenario 4

- In this scenario a patient with a chronic pain condition reports that over the past several months her typical pharmacologic regimen has not been controlling her pain as it has previously.

- After performing a thorough history and physical her primary care physician identifies several new life stressors, including loss of a loved one, impaired sleep, and financial difficulty.

- After a discussion regarding reasonable goals and expectation, the physician and patient decide to try cognitive behavioral approaches including relaxation techniques, such as meditation and message. Acupuncture and trigger point injections were also discussed as possible options as well.

- The patient agrees to try relaxation techniques at home and to follow-up in a few weeks.

6. Summary

Summary

Implementation of Nonpharmacologic measures may:

- Reduce stress and anxiety
- Increase feelings of control and choice
- Improve activity level and functional capacity
- Reduce the dosage of analgesic medications thereby decreasing side effects, especially when using opioids

Combining pharmacologic and nonpharmacologic management may yield more effective pain control for the patient, with minimal cost to the organization.

Summary

- Combining pharmacologic and nonpharmacologic management may yield a more effective multimodal pain control plan for the patient, healthcare team and caregiver.

- Remember that a patient in pain is like a car with 4 flat tires and medication inflates only one of tires. Consider nonpharmacologic approaches to help inflate the other tires!

- https://www.theacpa.org/acpa-car-with-four-flat-tires/

7. Additional Resources

Additional Resources

- American Chronic Pain Association
- National Center for Complementary and Integrative Health
- Distraction therapy: Hospital room designs help ease tension
- Managing Procedural Anxiety in Children
- American Chronic Pain Association: Relaxation Video **(free download)**
- University of Houston Guided Imagery and Visualization Library

PAMI learning module content will sometimes overlap due to similar topics. The PAMI website offers access to learning module handouts, PAMI Pain Management and Dosing Guide, resources, toolkits, best practices and recent pain news.

We welcome your feedback on all PAMI materials and are interested in how you use them to improve patient safety, pain education and clinical care. Please email emresearch@jax.ufl.edu.

For more information please visit http://pami.emergency.med.jax.ufl.edu/

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