

**Multidisciplinary Approach to Pain Management****Dr. Hess**Board Certified in Pain Management  
Board Certified in Anesthesiology

9/20/2019

*"Pain is multidimensional in terms of what causes it, what alters it and what effects it, and there is no one magic bullet for most chronic pain problems."*

- Catherine Bushnell, PhD, scientific director of the division of intramural research at the National Center for Complementary and Alternative Medicine (NCCAM)

**What is Pain?**

- Pain is always subjective.
- The patient's self-report of pain is the single most reliable indicator of pain.
- The clinician must accept the patient's self report of 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 of Pain (Merskey, 1979)

**Acute Pain**

- Acute pain presents most often with a clear cause, relatively brief in duration and subsides as healing takes place.
- Acute pain is often accompanied by observable, objective signs of pain; such as,
  - increased pulse rate
  - increased blood pressure
  - Non-verbal signs and symptoms such as facial expressions and tense muscles.

**Chronic Pain**

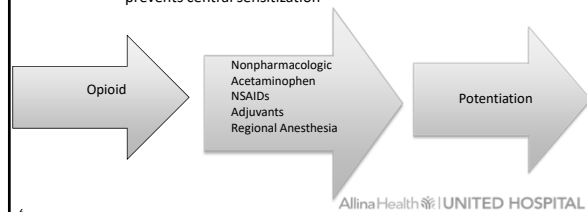
- Pain that is persistent and recurrent.
- When pain persists it serves no useful purpose and may dramatically decrease the quality of life and function.
- Chronic pain rarely has any observable or behavioral signs; although, persons may appear anxious or depressed.

**Pain Management Approach**

- Should be interdisciplinary and multimodal.
- Care is individualized and may depend on:
  - Pain source and intensity
  - Patient's age
  - Developmental, physical, emotional and cognitive status
  - Cultural beliefs
  - Treatment preferences
  - Concurrent medical conditions

## Why use the Multimodal Approach?

- It optimizes pain relief
- reduces side effect burden
- provides synergistic/additive effects
- lower doses of each medication needed
- opioid sparing pain control
- prevents central sensitization



6

AllinaHealth | UNITED HOSPITAL

## Multimodal Analgesia

- This term describes the use of multiple modalities that are used to provide pain relief with various parts of the pain pathway targeted.
  - Decreased dependence on single modality agents decreases the risk of side effects.
  - May include:
    - Pharmacological (opioids, NSAIDs, gabapentanoids)
    - Relaxation techniques (biofeedback, deep breathing)
    - Regional analgesia (nerve blocks, epidural catheters)

AllinaHealth | UNITED HOSPITAL

## Analgesic Therapy Concepts

- Multimodal**

  - Based on rational combinations of optimal doses of
    - different analgesics
    - different routes of delivery
  - Provides a way to achieve safer and more effective, opioid-sparing pain management

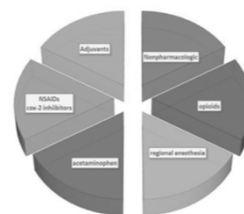
**Polypharmacy**

  - Use of multiple medications or more than are therapeutically necessary
  - Using multiple medications from the same class or similar MOA
  - Potentially inappropriate, excessive administration of medications

8

AllinaHealth | UNITED HOSPITAL

## Categories to Multimodal Approach



9

AllinaHealth | UNITED HOSPITAL

## Treatments May Include

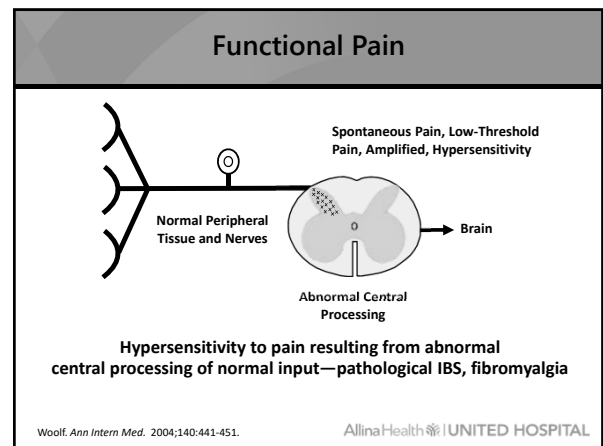
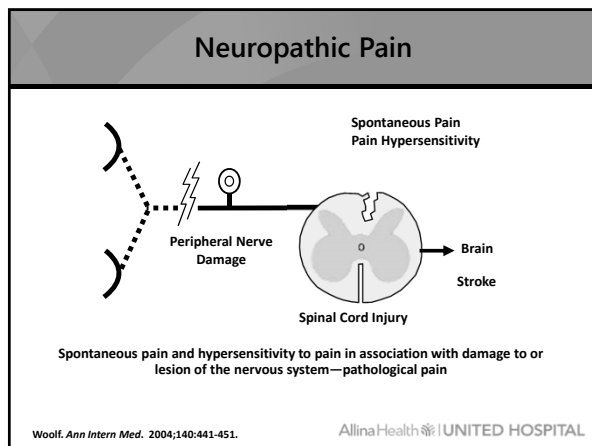
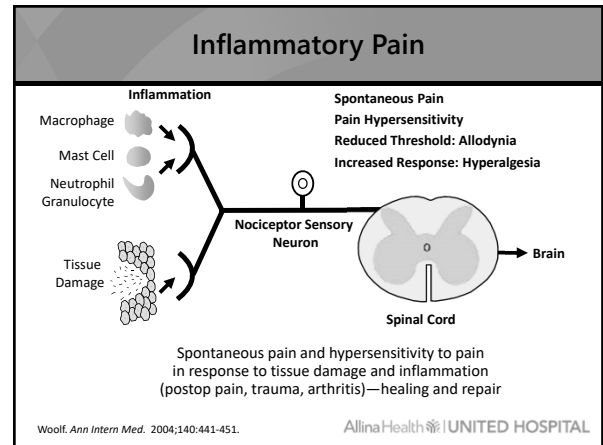
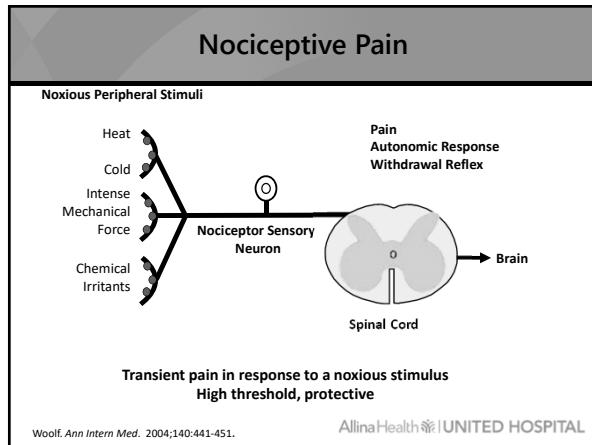
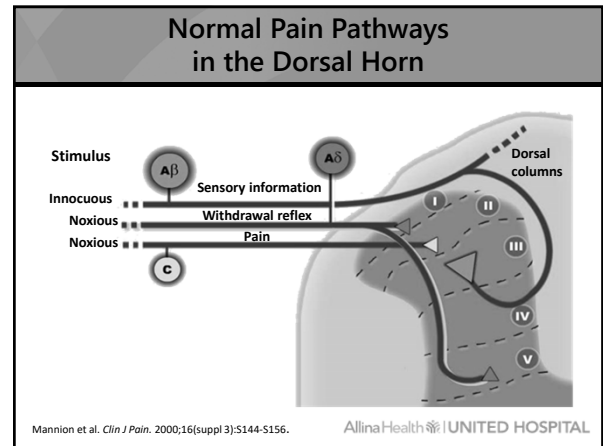
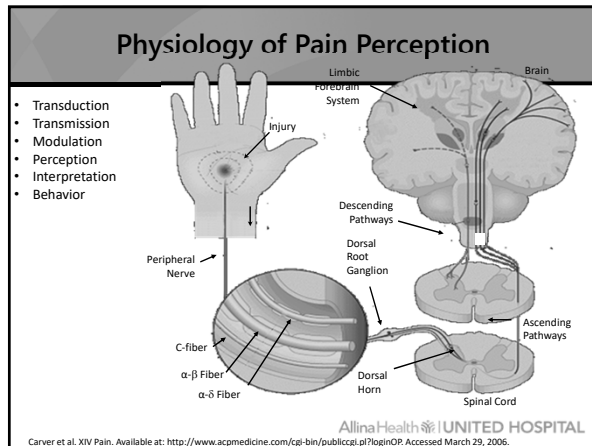
- | <b>Non-pharmacologic Methods</b> | <b>Pharmacologic Methods</b> |
|----------------------------------|------------------------------|
| • Heat/cold                      | • NSAIDS                     |
| • Relaxation                     | • Anti-seizure medications   |
| • Distraction                    | • Anti-depressants           |
| • Guided imagery                 | • Opioid analgesics          |
| • Acupressure/acupuncture        | • Local anesthetics          |
| • Repositioning                  | • Neurolytics                |

AllinaHealth | UNITED HOSPITAL

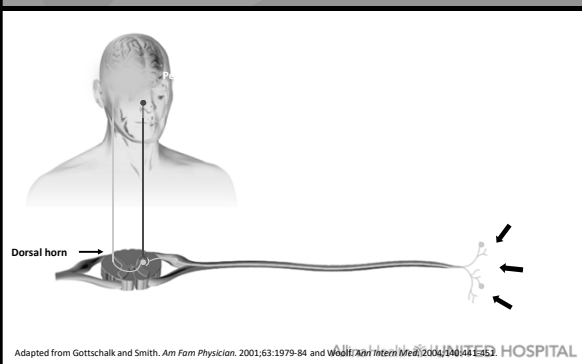
## Acute vs. Chronic Pain Management

- | <b>Acute Pain</b>  | <b>Chronic Pain</b>   |
|--|---|
| <ul style="list-style-type: none"> <li>• Most often treated with:               <ul style="list-style-type: none"> <li>– NSAIDS</li> <li>– Opioids</li> <li>– Local anesthetics</li> <li>– Splinting</li> <li>– Positioning changes</li> <li>– Ice</li> <li>– PT/OT and warm pool therapy</li> </ul> </li> </ul> | <ul style="list-style-type: none"> <li>• Most often treated with:               <ul style="list-style-type: none"> <li>– Anti-seizure medications</li> <li>– Anti-depressant medications</li> <li>– NSAIDS</li> <li>– Implantable devices</li> <li>– Psychological therapy</li> <li>– Acupuncture</li> </ul> </li> <li>• When all else fails and benefits outweigh the risks:               <ul style="list-style-type: none"> <li>– Opioids</li> </ul> </li> </ul> |

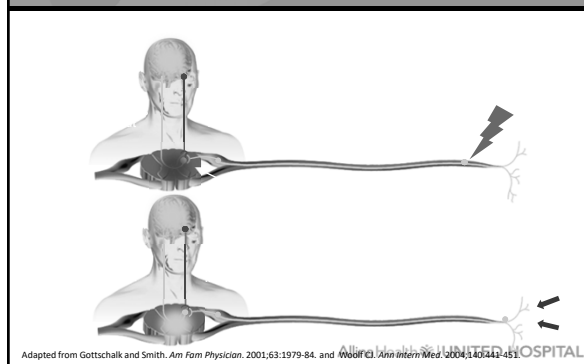
AllinaHealth | UNITED HOSPITAL



## Normal Nerve Impulses Leading to Pain



## Theory of Central Sensitization



## UNITED PAIN CENTER

How does United Pain Center employ a multidisciplinary approach to pain management?

20

AllinaHealth | UNITED HOSPITAL

## UNITED PAIN CENTER

United Pain Center is a hospital-based outpatient clinic that provides comprehensive services using a multidisciplinary approach for individuals experiencing chronic and acute pain. United Pain Center opened in 1993 to offer high quality, multi-disciplinary services to patients.

Members of the treatment team include Anesthesiologists; Physicians specializing in pain management, Nurse Practitioners, Physician Assistants, Psychologist, Biofeedback Therapist, Acupuncturist, Social Workers and Registered Nurses.

The staff team works together with patients to reduce their pain and improve the level at which they function.

21

AllinaHealth | UNITED HOSPITAL

## UNITED PAIN CENTER

### Services Available

United Pain Center has many different resources available to help patients manage their pain and improve their quality of life. These services include:

- Diagnostic and therapeutic injections, such as nerve blocks and epidural steroid injections
- Medication Management
- Biofeedback Therapy
- Psychological assessment and support
- Acupuncture
- Social Work support
- Inpatient pain consultations at United Hospital

22

AllinaHealth | UNITED HOSPITAL

## UNITED PAIN CENTER

### Common Types of Pain Issues Treated

- Myofascial Pain
- Neuropathic pain
- Post Herpetic Neuralgia
- Headache
- Complex Regional Pain Syndrome/Reflex Sympathetic Dystrophy
- Cancer pain
- Complex chronic pain problems
- Spine Care

AllinaHealth | UNITED HOSPITAL

## UNITED PAIN CENTER

### Anesthesiologists



Todd M. Hess, M.D.  
Medical Director



Angelito Sajor, M.D.



Sena Kihitir, M.D.  
Provider at  
Regina Pain Center



Erin Bettendorf, M.D.  
Provider at  
Regina Pain Center  
Board eligible

Board Certified in Anesthesiology  
Pain Certification, American Board of Anesthesiology


AllinaHealth  UNITED HOSPITAL

24


## UNITED PAIN CENTER

### Procedures

Epidural Steroid injections  
Medial Branch Block/Radiofrequency  
Occipital Nerve blocks  
Intercostal Nerve blocks  
Sacro-iliac joint injections  
C2 V1 injections  
Ankle blocks  
Lidocaine Infusions  
Botox  
Trigeminal blocks/Auriculo-temporal




Stellate Ganglion block  
Sympathetic blocks  
Spinal Cord Stimulator Trials  
Facet injections  
Trigger Point injections  
Euflexa, Synvisc, Supartz  
Peripheral blocks  
Piriformis injections  
Inpatient Ketamine Infusions

AllinaHealth  UNITED HOSPITAL


25

## UNITED PAIN CENTER


### Advanced Practice Providers




Una Edwardson,  
Nurse Practitioner,  
Outpatient




Chris Timm-Hughes,  
Nurse Practitioner,  
Inpatient & Outpatient




Meral Atay,  
Nurse Practitioner,  
Inpatient & Outpatient




Andrea Brody,  
Physician Assistant-  
Certified, Inpatient  
& Outpatient




Ashlie Bondarenko,  
Nurse Practitioner,  
Inpatient and Outpatient



Louisa Dappaah,  
Nurse Practitioner,  
Inpatient & Outpatient



Crystal Rudell,  
Nurse Practitioner,  
Inpatient & Outpatient, Regina  
Pain Center provider

AllinaHealth  UNITED HOSPITAL


26

## UNITED PAIN CENTER

### Evaluation and Management Services

Physicians and Advance Practice providers work together to offer patients chronic and acute pain evaluations, care plan recommendations, and follow up services to continue to improve pain and quality of life.

Treatment plans may include medications, warm pool therapy, complimentary therapies, injection therapy, mental health support, and Social Work services (we do not certify patient's for Medical Cannabis).

AllinaHealth  UNITED HOSPITAL

27

## UNITED PAIN CENTER

### Inpatient Pain Consultation Service

Six Advanced Practice Providers are available to complete inpatient pain assessments/follow up visits to reduce pain and improve outcomes and patient experience


Chris Timm-Hughes, Nurse Practitioner  
Meral Atay, Nurse Practitioner  
Crystal Rudell, Nurse Practitioner  
Andrea Brody, Physician Assistant- Certified  
Ashlie Bondarenko, Nurse Practitioner  
Louisa Dappaah, Nurse Practitioner

AllinaHealth  UNITED HOSPITAL


28

## UNITED PAIN CENTER

### SOCIAL WORK




Beth Fuller, Licensed Social Worker



Briana George, Licensed Social Worker

The Social Workers are available to assist providers and patients with resources during visits. This helps to ensure our patients have psychosocial and basic living needs met to improve quality of life and reduce stressors.

AllinaHealth  UNITED HOSPITAL

## UNITED PAIN CENTER

**PSYCHOLOGY**

**Efrat Eichenbaum, Ph.D., L.P.**  
Psychologist

A fellowship-trained rehabilitation psychologist, which means she specializes in working with individuals with chronic health conditions or disability (chronic pain, traumatic brain injury, smoking, insomnia, spinal cord injury, amputation).

Provides pre-surgical psychological screenings for Spinal Cord Stimulation candidates.

She uses empirically-supported practices (approaches that have been proven by research to be effective) because they provide the best chance for recovery. She most often use Cognitive Behavioral and Mindfulness-Based therapies.

AllinaHealth  UNITED HOSPITAL

## UNITED PAIN CENTER

**ACUPUNCTURE**

**Tama Almquist, L.Ac, MTOM, BAN, CRRN**

**Licensed Acupuncturist** and practitioner of Traditional Chinese Medicine.

Tama received a Masters of Traditional Oriental Medicine in 1989 from the Pacific College of Oriental Medicine, San Diego, CA. She is board-certified by the National Certification Commission of Acupuncture and Oriental Medicine (NCCAOM) and is licensed by the Minnesota Board of Medical Practice. In addition she holds a Bachelor of Arts in Registered Nursing from the University of St. Catherine along with certification Rehabilitation Nursing. She specializes in the treatment of chronic pain, stress management, and the promotion of holistic preventive health and is practitioner of Chinese Tui Na Massage.

AllinaHealth  UNITED HOSPITAL

## UNITED PAIN CENTER

**BIOFEEDBACK**

**Cindy Heppner, Biofeedback Therapist**

Cindy has been with United Pain Center for 20+ years and providing biofeedback services for 18 years specializing in chronic pain and anxiety.

**Biofeedback helps patients understand their physiological responses to pain and anxiety.**

*"With education and coaching we are able to teach patients techniques that help them manage, and control their pain and anxiety"*



**Jonathan Wagner, Biofeedback Therapist**

Jonathan has a Master's in Clinical Counseling from St. Mary's University of Minnesota; and his BA in Psychology from the University of Minnesota. Jonathan is BCIA Certified in EEG Biofeedback.

AllinaHealth  UNITED HOSPITAL