Pain – It gets our attention

Overview of Pain

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1.5 Hrs East of Pittsburgh
7 Hrs West of New York City
Johnstown, PA  (Pop 21,641)

1889 Flood waters
Johnstown’s “Claim to Fame” Flood of 1889
Care Philosophy: Medical Care for the Polio Survivor

1) Individualized Goal Setting
   - Chronic Disease Self Management

2) Holistic Approach
   - Physical, Emotional, Spiritual

3) Self awareness & Self empowerment
Types of Pain

- Muscle / Tendon Pain
  - Dull / Aching, can be burning when chronic
  - Often inflammatory cause & assoc. w spasm

- Neuropathic Pain
  - Usually burning or electric
  - Often worst at night
  - May follow a nerve distribution
  - May be defuse (Periph. Neurop.) or focal (entrapment)
  - Often respond to non conventional medications including seizure meds / antidepressants
Pain Example: Sacroiliac Dysfunction

- Anatomy & Physiology important
- Posture an Biomechanics considerations
- Goals of Rehabilitation:
  - Avoid “micro re-injury”
  - Improve flexibility
  - Strengthen supporting muscles / Core
- Anti-inflammatory meds, muscle relaxants, Ice/heat, injections
- Sacroiliac belt, body pillow
Rehabilitation Approaches for Pain

- **Therapeutic Exercise**
  - Flexibility
  - Strengthening

- **Improve Biomechanics**
  - Normalize gait or posture
  - Bracing
  - Energy Conservation / Preventing Overuse

- **Modalities**
  - Heat / Ice / Ultrasound / TENS
Examples of Rehabilitation Approach:

**Body Pillow**
- Hip/Knee/Ankle in line
- Minimizes Spinal Rotation
- Minimizes Torque on SI joint
  - Stabilization in deep sleep when muscles all relaxed

**Articulating AFO**
- Eliminates Foot-drop
  - Stepage Gait causes SI stress
- Ankle Stabilization
  - Improved Balance
  - Less need for proximal Stab.
Medications for Pain (examples)

- Narcotics *(Oral or Topical)*
- Non narcotic Analgesics
- Anti inflammatory medication
  - Steroids
    - Oral or Injected
  - Non steroidal Anti inflammatory (NSAIDs)
    - Oral or Topical
- Muscle Relaxants
- Complimentary VS Alternative Medicine

* Caution with Chronic Use
Procedures for Pain

- **Surgery**
  - Joint Replacements
    - Major advances (eg: anterior hip replacement)
  - Rotator Cuff Repair / Acromioplasty
  - Arthroscopic Surgery

- **Injections**
  - Sacro-Iliac, Biceps Tendon, Epidural Injections

- **Spinal Cord Stimulators / Morphine Pump**
What is our body telling us?

- Hurt vs Harm
- Where is pain coming from?
  - Determining cause and physiology of pain is first step in treating OR preventing pain?
- As a general rule, the body heals itself
  - Often goal is to listen to our body intelligently and prevent repeated reinjury to allow healing
- Improvement or worsening with treatment or activity changes can be important observations
- Some people “listen”, some do not
How does our personality* change our pain experience and treatment?

- Do we “ignore” pain, cause repeated injury?
- Does stress and anxiety feed into pain? Does sleep effect pain?
  - Muscular pain/tightness, Neurogenic pain
- Were we raised a child to “suck it up”?
- Do we get frustrated at reduced activity and then “overdo”?
- Do we have a tendency to “sacrifice our body” for others?
- Do we use words like “Have to…”, “Need to…”, or “Should ..”?
- Do we tend to “minimize” or “amplify” pain as we report it to health care providers (thereby impairing appropriate treatment)?
  - Athletes and Post-Polio patients tend to minimize
  - Workers Comp. patients tend to amplify

*Personality type is not “good” or “bad”
• Insomnia
• Stress
• Lack of Peace
  • “Why me?”
• Anxiety

Myofascial Pain Cycle
Sleep & Pain

- Reduced ability to cope with pain
- Exacerbation of Neuropathic Pain
- Feeding into Muscular Spasm

**Note**: Stress will also lead to the above
  - Directly
  - Indirectly (by reducing quality of sleep)
What can I do to reduce my pain and increase my function?

“Victim” role NOT commonly seen in PPS

Awareness of behavior and changes in lifestyle can be major factors in recovery or minimizing progression
Self Talk has a major role in many health care goals – Especially in pain

VS. “I don’t know how to…”
“It’s difficult for me to…”
The “problem” in Post-Polio

“I need to …..”
“I have to…..”
“I should…”

VS

“I want to ..”

....It is essential to take responsibility for choices in order to establish a plan for pacing activity and minimizing effects of overuse.
What do I “want” vs “Want” ??
Conceptual approach to preventing “Overuse” Injury

Common Theme
Sports Training or Disability Rehabilitation
All of us have a “capacity” on a given day or for a given activity – beyond which we have…

...“over done it”...

and we cause HARM to our body
Factors that Modify Capacity to Function

- Inactivity
- Increasing Age
- Over activity

“Appropriate” Exercise & Activity
Gradual Decline in Capacity to Function

Caused by

“Under activity” OR “Over activity”
Where is Optimal Level of Activity to Improve Capacity over time ??
Gradual Increase in Capacity to Function

Only with...

Appropriate daily activity just below
BUT ...How do we know where “Our Capacity Limit Is??
We need to Occasionally “Step over the line”

• Planned / Anticipated increase in activity
• Not reactive - Never “Have to..” or “Need to ..)
Behavioral Issues

Factors that make us “Step over the Line”

To Far or To Often

• Pressure to “Overdue”
  ◦ From within
  ◦ From others

• The “Overachiever”

• “Should have”, “Would have”, “Could have”
Final thoughts & Conclusion

- If current model has not helped - consider a new paradigm
- Understand anatomy and physiology of pain generator
- Eliminating “Exacerbating Factors” often key to improvement
- Take responsibility and “own” over activity / under activity
- Appropriate Self Management of an Exercise program and Complimentary Approaches can play a significant role
- Attention to Spiritual aspects of pain and disability can provide significant perspective and reduce suffering
- Complimentary approaches add to current medical model – do not throw the baby out with the bath water
  - Communicate with Primary Care Physician
  - Manage Health Care and engage all available resources
Thank you
Additional Slides follow
**Sleep Issues**

- **Underlying Sleep Disorders**
  - Obstructive Sleep Apnea
  - Periodic Leg Movement Disorder
  - Hypoventilation

- **Sleep Positioning***
  - Body Pillow

- **Sleep Hygiene & Stress Management***
  - Disciplined schedule
  - Avoiding stimulation/distraction
  - Active Peaceful Relaxation
Stress Management

- Medical Management can be counter productive
- Complimentary Medicine (Yoga, Tai-Chi, Aromatherapy, Acupuncture, Massage, Aquatics –Wasu)
- Cognitive Behavioral Therapy: an example
  - **Frustration**
    - “Stress is caused by not meeting your expectations”  .... Only 3 *Choices* possible...
    1. Continue to be Frustrated
    2. Work Harder/Smarter to meet Expectations
    3. Or *Change* your Expectations
Role of Exercise

- Occupational & Physical Therapy
  - Separate discussion – Functional Goals
- Self Management – Reduces Stress / Increased sense of wellness
  - Stretching / Strengthening
  - Gentle Cardio exercise
- Self Massage
  - Theracane
  - Ball Massage
Most of us focus on “Body” and ignore “Mind” & “Spirit”

- **Body** –
  - Pain, Ortho/Neuro impairments
  - Loss of physical function.

- **Mind** – (Will discuss with Self Awareness)
  - What motivates me to do what I do?
  - How can I change what I do or adapt?
  - “Self talk”

- **Spirit** –
  - Why am I here?
  - Why is this happening to me?
Spirituality and Health Care

- Spiritual questions
  - Is there a God?
  - Does He care about me?
  - Does prayer matter / Does He listen?

- Simply asking these questions can put our Wellness in perspective, reduce stress, and facilitate healing.
Holistic Model of Wellness Applies to ALL of us
Practical Example of Interaction between Mind, Body, Spirit

Myofascial Pain Cycle
(A Component of most chronic Pain

Muscle Spasm

PAIN