ECHO Nevada emphasizes patient privacy and asks participants to not share ANY Protected Health Information during ECHO clinics.

DISCLAIMER:
Video will be taken at this clinic and potentially used in Project ECHO promotional materials. By attending this clinic, you consent to have your photo taken and allow Project ECHO to use this photo and/or video. If you don’t want your photo taken, please let us know. Thank you!
Anxiety and Fears of Reinjury

ECHO
Michael Lewandowski, Ph.D.
“Movement is Life”
Aristotle
HOW DID YOUR PAIN START?

Was it an accident? Was someone to blame? Where you afraid, scared or fearful?

Blame, Trauma, Injury, Anxiety/Fear

Avoidance of activities and functional limitations

Lower tolerance and pain thresholds with high pain sensitivity reported
WHY examine Anxiety and FOR?

- **Leads to avoidance strategies** for living with pain
- Single greatest factors that perpetuates and maintain persistent pain
- Leads to deconditioning, muscle weakness, being out of shape and the “disuse syndrome”
- Elevated pain-related fear of movement and fear of re-injury and fear of pain INCREASES risk for chronic DISABILITY
- Longstanding avoidance leads to disuse of the musculature which in turn augments the deficits in the necessary motoric, social and vocational skills
Why is this Important?

- Because avoidance occurs in anticipation of pain, it reduces opportunities to correct erroneous beliefs about pain and activity.
- Anxiety FOR and AVOIDANCE behaviors are 7X more powerful than any clinical or historical data in predicting chronic pain one year after a low back injury.
Remember - Acute vs. Chronic/Persistent Pain

Acute pain = **avoidance** of daily activities that increase pain is a **spontaneous and adaptive** reaction of the individual and it usually allows the healing process to occur.

Chronic pain = avoidance behavior are maladaptive.
Fear and Avoidance behavior

“Fear of pain and what we do about it is more disabling than the pain itself.” (Waddell, 1993).

- Fear of reinjury by activity was a better predictor of self-reported disability than were biomedical signs and symptoms or pain severity. Vlaeyen, Kole-Snijders, Boeren, & van Eck (1995)
"Confrontation" and "Avoidance"

- Two extreme responses to fear
  - 1. CONFRONTATION leads to the reduction of fear over time.
    - I rarely see these people
    - When I do - poor activity pacers. Overdoers that lead to ups and downs
  - 2. AVOIDANCE leads to the maintenance or exacerbation of fear, possibly leading to a phobic state.
    - By reducing both social and physical activities, this leads to a number of physical and psychological consequences augmenting the disability.
What kinds of thoughts . . .

- “Pain always means I have injured my body”
- “I’m afraid that I might injure myself if I exercise”
- “Until my pain is gone I have not healed and if I have not healed I should not do anything.”

- Avoidance of movement or activity based on the belief it will cause injury or damage (kinesiophobia)
Appraisals of pain: Fear/Avoidance model

- Catastrophizing - an exaggerated negative orientation toward actual or anticipated pain experiences.
- “My back is breaking.”
- “I’ll be paralyzed.”

The Role of Fear of Movement/(Re)Injury in Pain Disability

Johan W. S. Vlaeyen, Ank M. J. Kole-Snijders, Annemarie M. Rotteveel, Renske Ruesink, and Peter H. T. G. Heuts

It is now well established that in chronic low back pain, there is no direct relationship between impairments, pain, and disability. From a cognitive-behavioral perspective, pain disability is not only influenced by the organic pathology, but also by cognitive-perceptual, psychophysiological, and motoric-environmental factors. This paper focuses on the role of specific beliefs that are associated with avoidance of activities. These beliefs are related to fear of movement and physical activity, which is (wrongfully) assumed to cause (re)injury. Two studies are presented, of which the first examines the factor structure of the Tampa Scale for Kinesiophobia (TSK), a recently developed questionnaire that is aimed at quantifying fear of movement/(re)injury. In the second study, the value of fear of movement/(re)injury in predicting disability levels is analyzed, when the biomedical status of the patient and current pain intensity levels are controlled for. In addition, the determinants of fear of movement/(re)injury are examined. The discussion focuses on the clinical relevance of the fear-avoidance model in relation to risk assessment, assessment of functional capacity, and secondary prevention.

KEY WORDS: chronic low back pain; fear-avoidance; fear of movement; fear of (re)injury; fear of pain; kinesiophobia; behavioral assessment.
Fear and Pain Disability

Fig. 2. Cognitive-behavioral model of fear of movement/(re)injury.
A Tribute to Alf Nachemson: The Spine Interview

Editor’s Note: With this issue, the BackLetter breaks a 20-year tradition and offers an interview as its cover story. The interview is an ode to the immense personal and scientific legacy of Swedish spine research pioneer Alf L. Nachemson, MD, PhD, who died at the age of 75 at his home in Gothenburg, Sweden, on December 4, 2006.

Arguably the most influential figure in the history of modern spine research, Nachemson rose to prominence with experiments conceived in the early 1950s and was dominant in the spine field for another half century.

His spine career began humbly with a part-time job delivering cadaver spines for experiments at the Karolinska Institute. It eventually involved research in more than 20 scientific fields; the publication of more than 500 studies, articles, and editorials; and collaborations and honors across medicine.

This interview was commissioned by Spine editor-in-chief James N. Weinstein, DO, MSc, to document Nachemson’s views on spine research and the evolution of his long research career.

“...demanded that we must do better for our patients with back pain.” (See Waddell, 1996.)

Here is one final encounter with that ambassador—and his provocative scientific message.

Question: You have worked in the spine field for half a century. You’ve performed research in dozens of areas and published more than 500 studies and articles. What is your most significant research accomplishment?

Nachemson: I think my most important accomplishment has been to expand the boundaries of spine research by attracting other disciplines and fields to the study of back pain. I have always been an enthusiastic... Continued on page 18

Refining Stenosis Options

Medicine does not have any miracle cures for spinal stenosis. Existing treatments cannot turn back the...
Treatment Ideas to address FOR

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<th>Table 1. GENERAL EXPECTED HEALING TIMES</th>
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<td>Herniated disc - conservative treatment</td>
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<td>Complex facial fractures</td>
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<td>Upper limb</td>
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<td>Simple, vertebral, body compression - all levels</td>
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<td>Spinal fractures/dislocations</td>
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<td>Pelvis - no reduction</td>
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<td>Pelvis - with reduction</td>
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<td>Femur and hip fractures</td>
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<td>Tibial fractures</td>
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<td>Other lower limb and foot fractures</td>
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Fig. 1. The natural history of chronic back pain. Percentage of sick leave in relation to pain duration since onset (based on Spitzer et al., 1987).
TOOLS to screen for Anxiety and FOR
ASSESSING FEAR-AVOIDANCE

- **Fear of pain:**
  - Pain and Impairment Relationship Scale (PAIRS)
  - Pain Anxiety Symptom Scale (PASS)
  - Medical Stability Quick Screen (MSQS)

- **Fear of movement/reinjury:**
  - Medical Stability Quick Screen (MSQS)
  - Tampa Scale for Kinesiophobia (TSK)

- **Fear activity signals harm:**
  - Fear Avoidance Beliefs Questionnaire (FABQ)

- **Risk for Delayed Recovery:**
  - Örebro Musculoskeletal Pain Screening Questionnaire (OMPSQ)
Medical Stability Quick Screen - MSQS
Target areas of Intervention

Sample of chronic pain patients $N = 2,632$
Cognitive Goals:
- Identify and correct cognitive distortions that produce:
  - Fear-avoidance
  - Catastrophic thinking
  - Passivity
  - Negative emotions
COGNITIVE-BEHAVIORAL APPROACH

Behavioral Interventions:

- Pain diary and activity schedule
- Pacing/task rotation
- Exercise to target rather than tolerance
- Relaxation training to increase awareness and control of physiology: muscle relaxation and breathing
Michael Lewandowski, Ph.D.

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