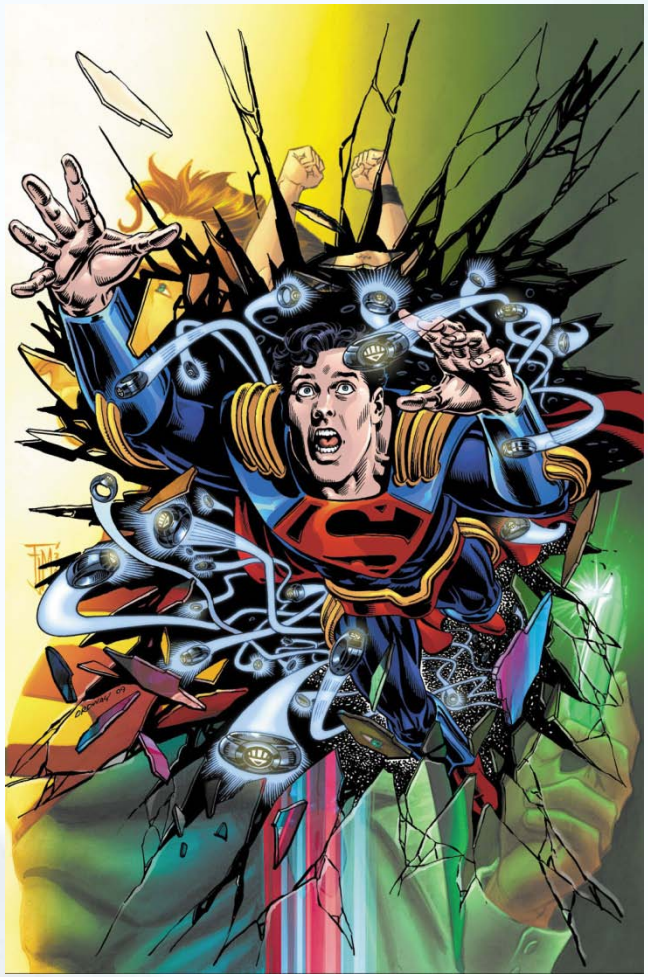
Risk of Developing Chronic Pain and Disability and

Collecting Comics



Those who do not feel pain seldom think it is felt.

Samuel Johnson

My Physician Qualifications

- Masters in Social Work
- MD (McMaster University)
- FRCP(C) Psychiatry (McMaster University)
- Two Years additional training (working under supervision) in the management of chronic noncancer pain

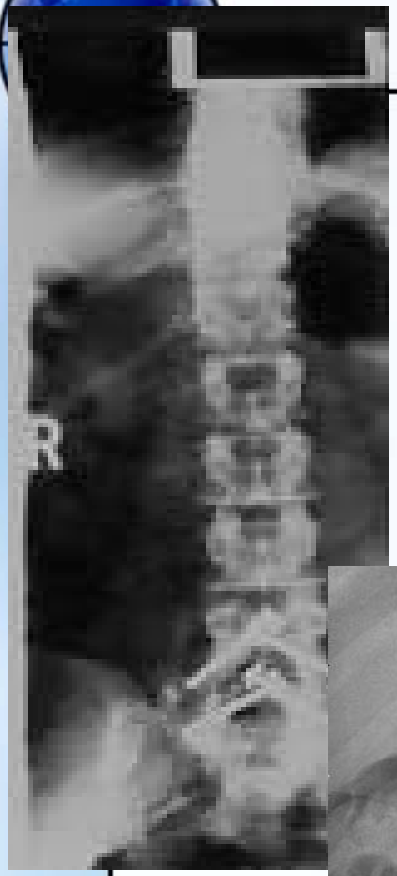
Before

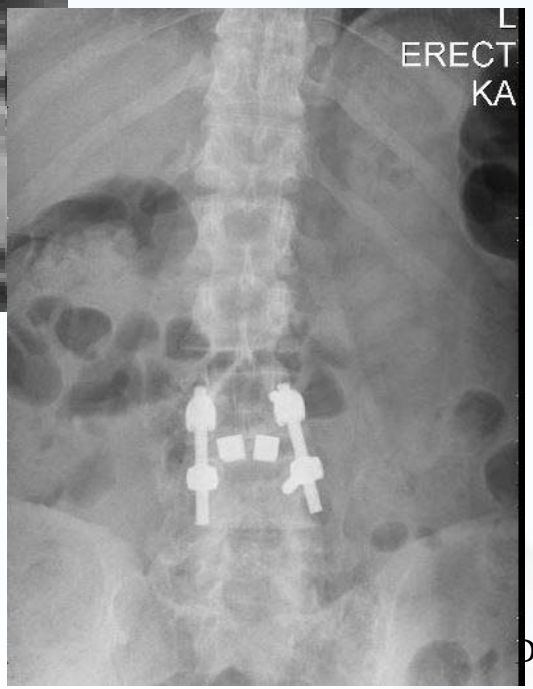
My Patient Qualifications

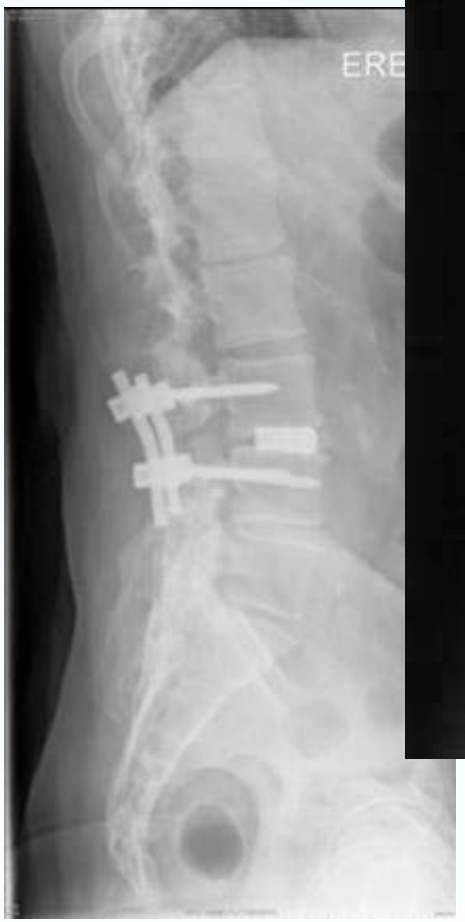
- **Guillain-Barré Syndrome**
- **Chronic Ideopathic Polyradiculoneuropathy**
- **Connective Tissue Disorder**

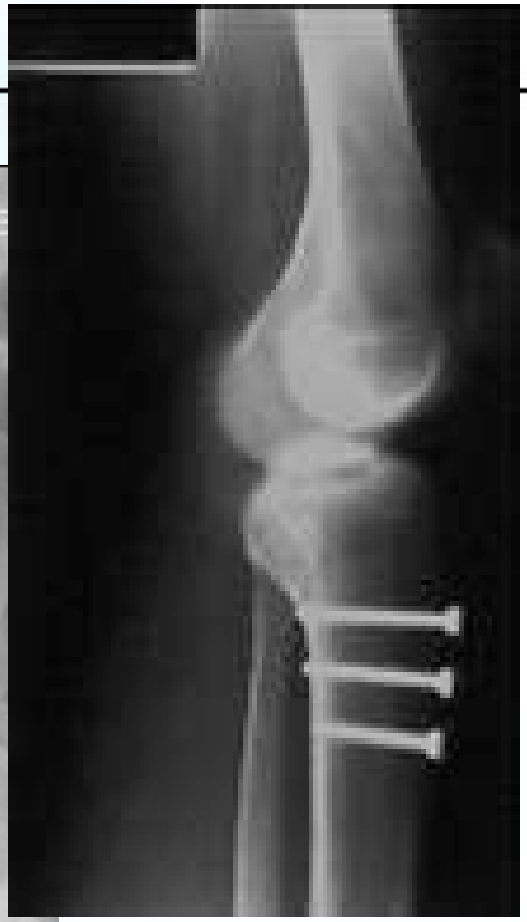
- **Ehler-Danlos Syndrome**
  - **16 Musculoskeletal surgeries**
  - **6 to the back including 2 fusions**
  - **6 to the knee**
  - **3 to the hands**

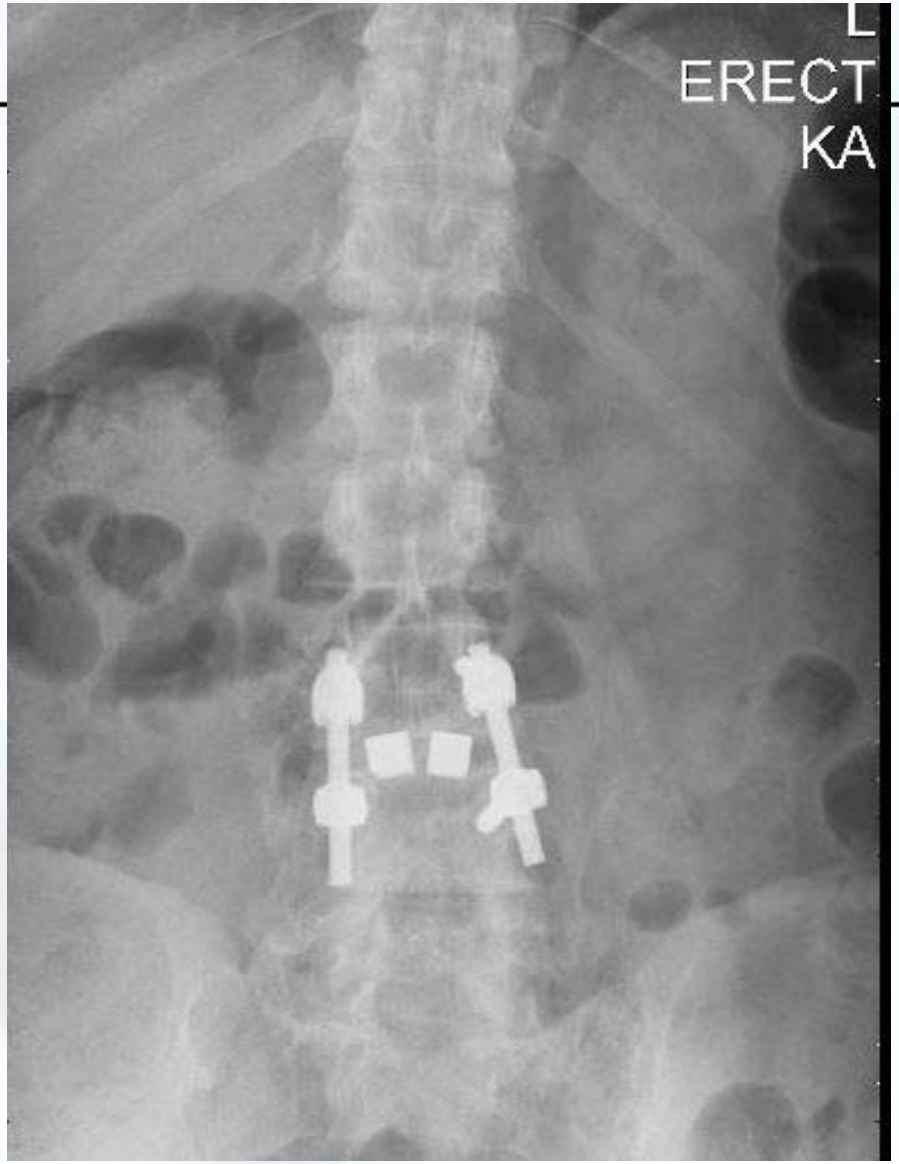
Qualifications







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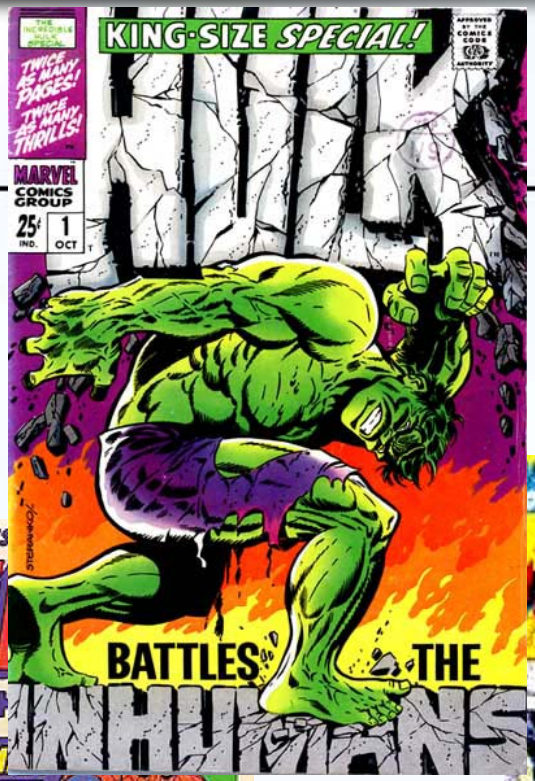
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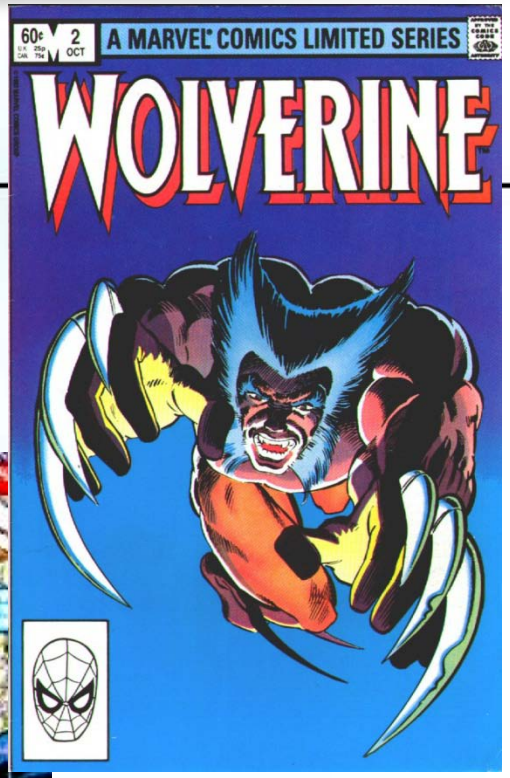
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HERE COMES
THE MAN WITH
REMEMBER WHEN WE INTRODUCED... SPIDER-M


NOW WE CONTINUE THE MIGHTY MARVEL TRADITION WITH... DAREDEVIL!!
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IN THIS ISSUE YOU WILL MEET...
THE MOST UNUSUAL HERO OF ALL... MATT MURDOCK
AND LOVING FOGGY NELSON
GORGEOUS KAREN PAGE
CAN YOU GUESS WHY DAREDEVIL IS DIFFERENT FROM ALL OTHER CRIME-FIGHTERS...?


SPIDER-MAN
TORMENT

Magic

Prodigy / *Jessie, Daniel & Jonathan Ennis*

Dundas brothers bring magic to life

Three Dundas brothers are conjuring up lots of fun and entertainment for children and adults with The Big Eaze Magic Ensemble.

Jesse, Daniel and Jonathan Ennis are magicians who perform hundreds of tricks for good causes and fundraisers.

They also do paid gigs for children's parties, office gatherings, conferences and trade shows.

The three became interested in magic as young boys when their father brought home a magic kit. Daniel, 13, recalls getting serious about magic when he was eight.

"The first trick I learned that I was really proud of was making a traffic light change colours by using balls. Sometimes it is difficult to make the presentation fit well with the effect. Little kids like this trick."

Jonathan, 11, has been interested in magic ever since he first saw tricks being performed at friends' birthday parties.

"It really interested me. I like performing and acting and I like to dazzle people who don't know how it is being done."

Jesse, 15, liked learning to do tricks when he was nine but says he perform. "Little kids like the visual tricks and humorous stuff and we use a lot more costumes and visual jokes for them while adult groups like the card tricks."

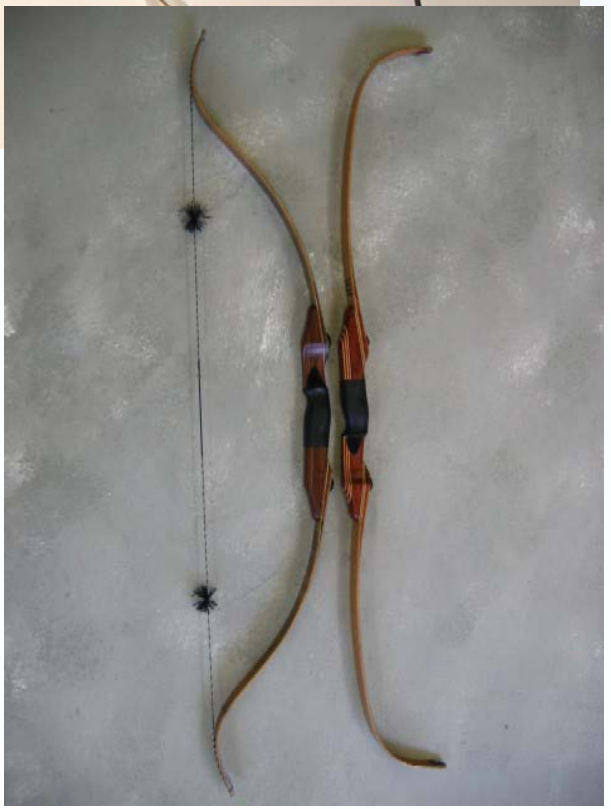
Daniel says they have done some kids' birthday parties and have performed shows for patients in hospitals.

'The first trick I learned that I was really proud of was making a traffic light change colours by using balls. Sometimes it is difficult to make the presentation fit well with the effect. Little kids like this trick.'

DANIEL ENNIS

"They really liked it. They couldn't believe that we could do something impossible like make things disappear. I find it fun to do the impossible.

"I like doing it for people and seeing how they react. I like making people happy."



East End Multidisciplinary Pain Management Program

It’s All in How You Think, How you Feel and What You Do

Agenda

- Brief Review of ‘What is Pain’
- Identifying Patients at Risk
- Tools for Assessment
- Acupressure
- Relaxation Techniques

The Fantastic Four

Current Value in Mint Condition=

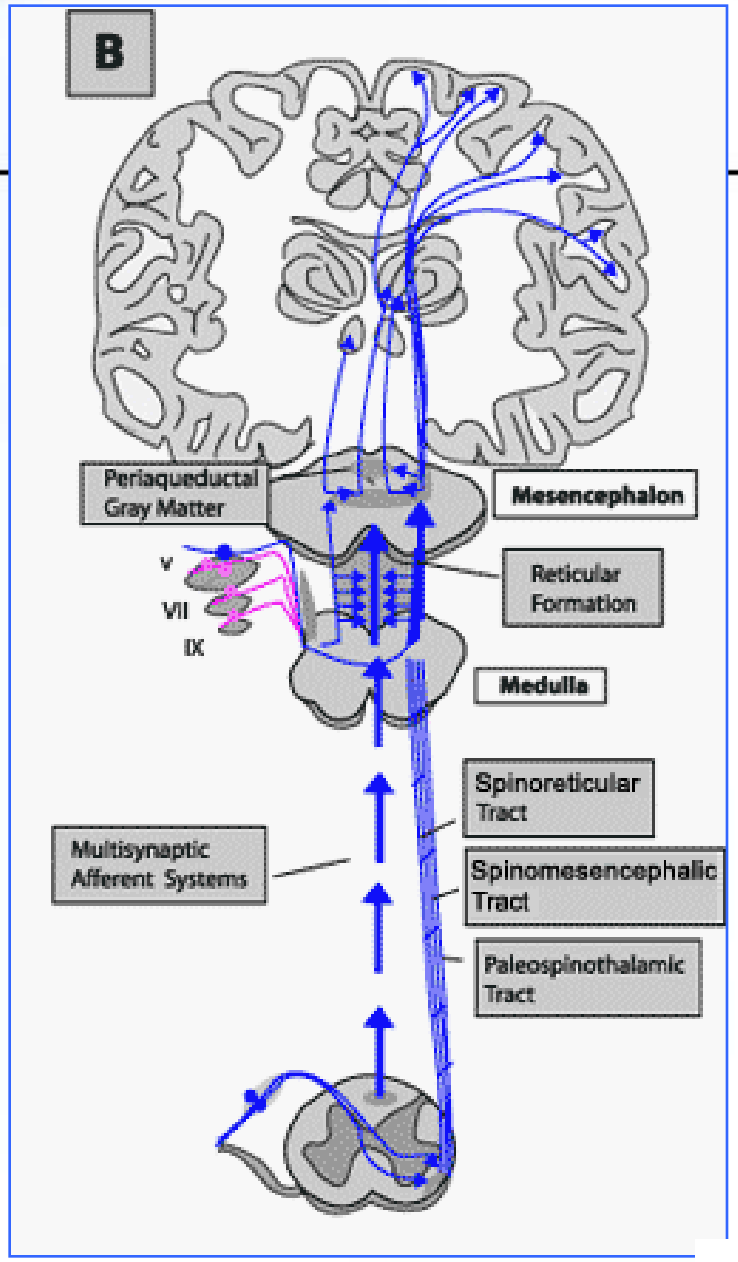
$80,000 U.S.

IASP Definition of Pain

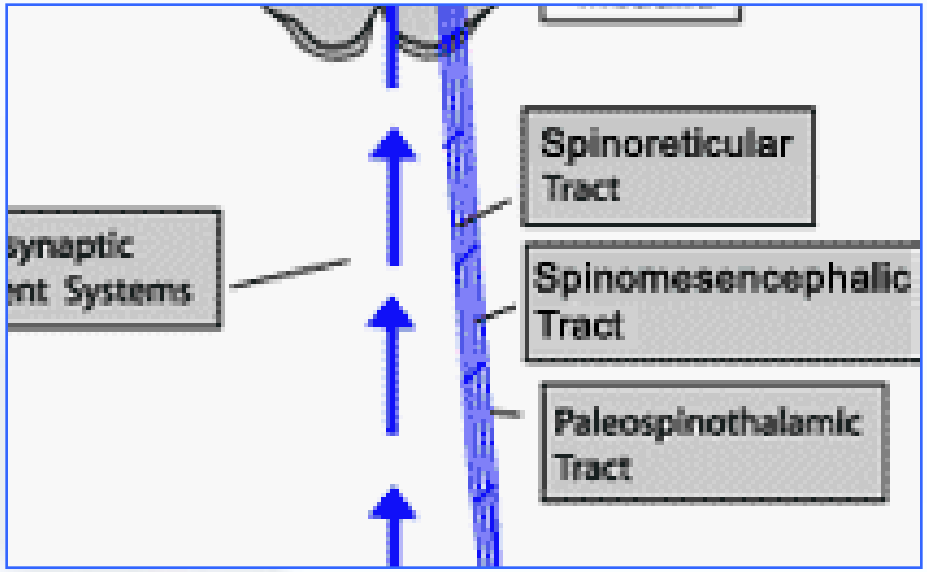
An unpleasant sensory and emotional experience associated with actual or potential tissue damage, or described in terms of such damage.

Anatomy of Pain

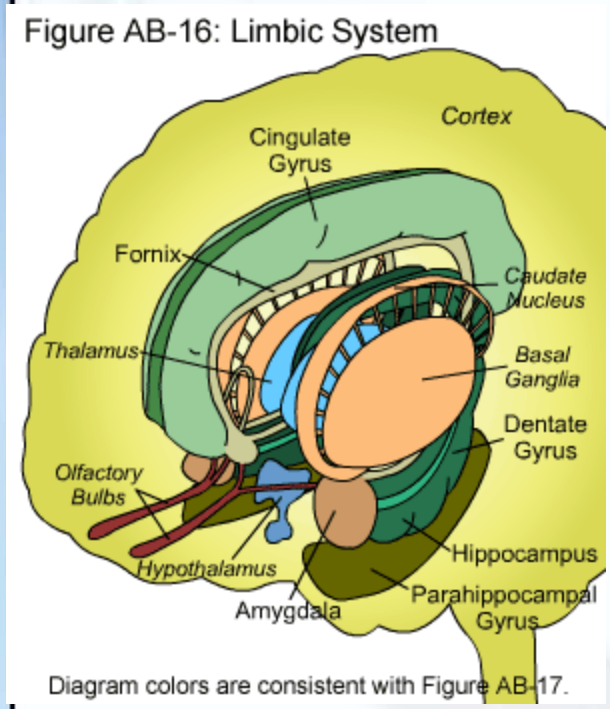
The Spinothalamic Tract

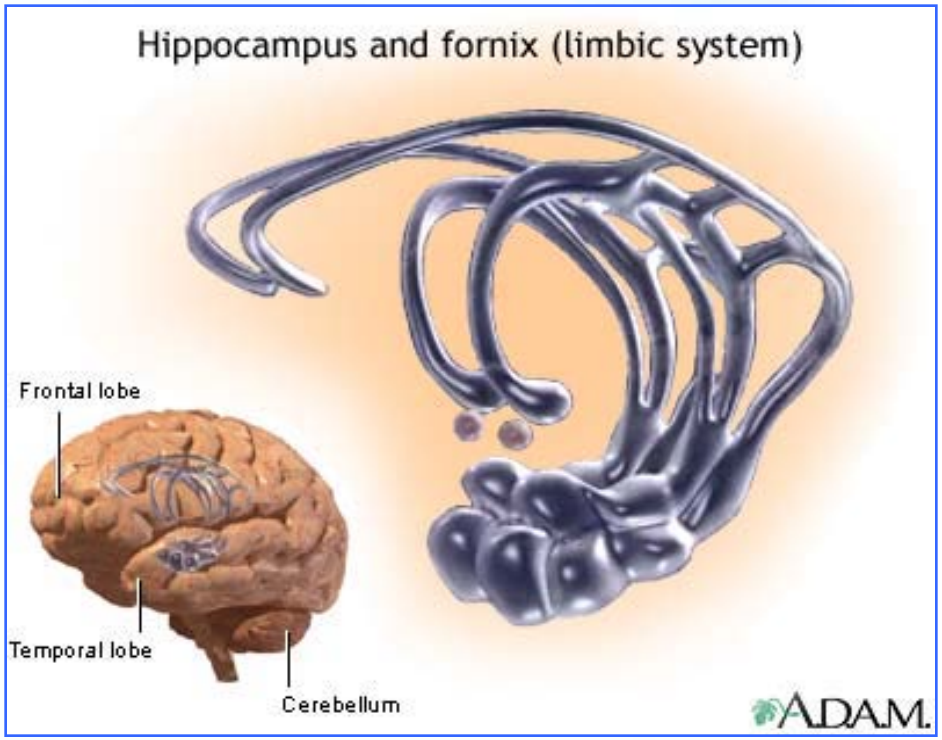


Pain Mood Connection



Pain Mood Connection (Limbic Structures)

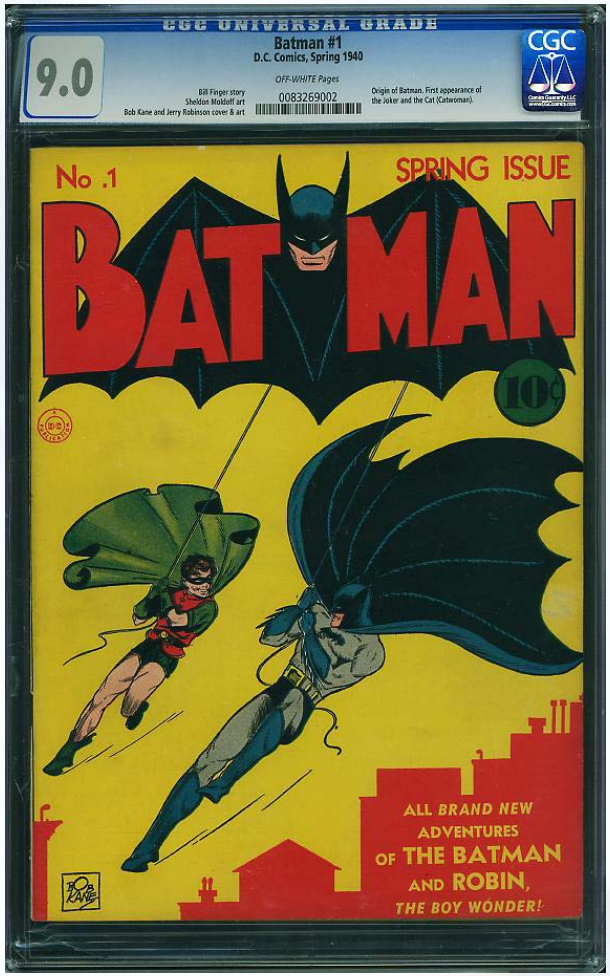




Components of Pain

- **Sensory Discriminative component**
  - **Intensity, location, ?quality**
    - **The sensory component of pain**
- **Affective motivational**
  - **Limbic involvement**
    - **The affective component of pain**
- **Cognitive-evaluative**
  - **What thoughts are associated with experience of pain**
    - **The appraisal of pain-determining its meaning**

Batman Number 1



$315,000 (U.S.)

Pain Management

- Typically treatment falls into 2 groups
  - Those treatments that focus on the sensory discriminative aspect of pain
    - **Surgery**
    - **Intervention**
    - **Pharmacotherapy**
  - Those that focus on the affective-motivational and the cognitive-motivational aspects of pain
    - **Pharmacotherapy**
    - **Psychotherapy**
    - **Multidisciplinary pain programs**

What about the “At Risk Patient?”

- It is uncommon for our treatments to result in perfect outcomes
- Many patients do not respond to ‘usual care’.
  - These patients are eventually labelled as chronic
  - Usually happens after many years of being non-responsive to treatment.

Case Part I

Mark T. is a steelworker who had a work related injury three months ago. He presents with low back pain of two weeks' duration. There is no pain radiating into his lower extremities, nor any long track signs. Bowel and bladder function are maintained. Mark hurt his back while prying apart two heavy plates of steel. He felt a sudden grabbing sensation.

The At Risk Patient

- Is there any advantage in IDing the at risk patient early?
  - YES
    - Specific treatments are available for at risk patients resulting in
      - Reduced morbidity
      - Reduced cost
- It is important to ID the at risk patient as early as possible before time is wasted on treatments that are not likely to lead to change.

Risk Factors

- Non-malleable Risk Factors
- Social/Systemic Risk Factors
- Physical Factors
- Yellow Flags

Non-Malleable Risk Factors

- Increasing age leveling out in the 60s
- A history of abuse in childhood

Social/Systemic Risk Factors

- Presence of Compensation/Insurance
- Poor support system-Family/social net
- Socioeconomic status-increased risk in lower socioeconomic populations
- Lower level of education
- Family History of Pain
- Work Related issues
  - Blue Collar
  - Machine work
  - Boring
  - Critical supervisors

Physical Factors

- Early high pain/disability rating
  - Important part of the early assessment
- Multiple Waddell Findings
  - Risk factor for poor outcome only
  - Does not identify patients who are malingering

Waddell Signs

- Waddell, et al. (1980) described five categories of signs:
- Tenderness tests: superficial and diffuse tenderness and/or nonanatomic tenderness
- Simulation tests: these are based on movements which produce pain, without actually causing that movement, such as axial loading and pain on simulated rotation
- Distraction tests: positive tests are rechecked when the patient's attention is distracted, such as a straight leg raise test
- Regional disturbances: regional weakness or sensory changes which deviate from accepted neuroanatomy
- Overreaction: subjective signs regarding the patient's demeanor and reaction to testing
- In the original paper, when three or more categories were positive, the finding was considered clinically significant. Now, we know these signs indicate poor clinical outcome only. They do not mean a patient is malingering.

Psychiatric Issues (Yellow Flags)

- Co-morbid psychiatric disorder
  - Depression/PTSD
- High pain/disability ratings early in the course of care
- Alcohol and Substance Abuse
- Somatization
- Fear/Avoidance/Catastrophic Thinking

Amazing Fantasy

$227,000 (First appearance of spider-man

Case Study Part II

- Physical examination of Mark reveals reduced range of movement of the lumbar spine in all planes. Very light palpation of the lumbar spine results in severe reported pain. His response is dramatic. He has multiple **Waddell Signs**. He is referred for physiotherapy. Mark is 48 years old. He grew up in a home marred by alcohol abuse on the part of both of his parents. This would often lead to physical abuse. He left school and home by 17 years of age and trained on the job. He worked on a C and C machine. Before the injury, Mark rarely missed work because he could not afford to. However, he found his job repetitive and dull. Mark's supervisor was constantly critical of his work. Mark smoked a pack of cigarettes a day.

- Mark scored 7 on the **Alcohol Use Disorders Identification Test (AUDIT)** and he reported smoking marijuana three times a week on the **Drug Use Questionnaire**.

Analysis of Part II

- What risk factors are identified
  - High pain rating
  - Hx of abuse
  - Work factors
    - Blue-collar
    - Repetitive
    - Critical supervisor
    - Works on a machine
  - Physical examination findings including Waddell Signs

Assess for Substance Use

- The **AUDIT** assesses for problems related to alcohol use at the time of the assessment.
  - A score of 8 indicates potential problems related to alcohol use and a score of 15 indicates alcohol abuse in a male.

- The **Drug Use Questionnaire** assesses for substance use over a patient's lifetime. This scale provides historical data but is not scored.

Case Study Part III

- At three months follow-up Mark reports no improvement with treatment. His level of function has deteriorated. His score on the **Pain Disability Index** is 59. He is doing very little at home, spending most of his day sitting in a reclining chair. His family has told him that he should try to do as much as he can, but there's been no improvement and he's starting to wonder if he'll be crippled.

- Imaging shows wide spread degenerative disc disease (DDD) of the lumbar spine. A surgical consultation concluded that Mark is not a surgical candidate. Mark is reporting problems with sleep and he has lost 6.8 kg since the injury.

- Mark's score on **the Zung Depression Scale** is 54 and on the **Zung Anxiety Scale** he scored 21. You initiate treatment with an antidepressant and refer Mark to an anesthetist for injection therapy.

Analysis of Part III

- The **Pain Disability Index** is a simple method of measuring function across a variety of spheres in a person's life. A score of 59 is above scores typically seen in patients with chronic noncancer pain, indicating a low level of function.

The **Zung Depression Scale** screens for depression. A score of 54 is indicative of mild depression.

25-49 Normal Range
50-59 Mildly Depressed
60-69 Moderately Depressed
70 and above Severely Depressed

The **Zung Anxiety Scale** is a scale used to assess for generalized anxiety. A score of 21 is below the cut-off of 36. A score above 36 would indicate that the presence of generalized anxiety.

PDI

- **The Pain Disability Index (PDI)**
- The index was developed at St. Louis University Medical Center.
- (1) family and home responsibilities: activities related to home and family
- (2) recreation: hobbies sports and other leisure time activities
- (3) social activity: participation with friends and acquaintances other than family members
- (4) occupation: activities partly or directly related to working including housework or volunteering
- (5) sexual behavior: frequency and quality of sex life
- (6) self care: personal maintenance and independent daily living (bathing dressing etc.)

Risk Factors

- Mood disorder
- Poor function

Captain America in WWII

$128,000.00 (U.S.)

The first appearance of Captain America in 1941

Case IV

- At follow-up two months later, Mark's mood has improved, but his function remains poor. Injection therapy was not helpful and Mark thinks it might have made him worse. Now, there are days when he does not bother getting up until noon. His wife is becoming very frustrated. Mark avoids doing any chores at home. He asks you for a prescription for a cane.

- Mark scores 143 on **the Orebro Musculoskeletal Questionnaire** and 44 on the **Tampa Scale of Kinesiophobia**. Mark scored 36 on the work-subscale of the **Fear Avoidance Scale** and 17 on the physical subscale of this test. These results indicate:
  - clinically significant fear and avoidance.
  - High risk for chronic disability and for not returning to work

Analysis of Part IV

- The **Orebro Musculoskeletal Questionnaire** measures the risk of a patient becoming chronically disabled and the likelihood that they will return to work. Scores above 109 indicate risk of disability, but scores above 130 indicate a very high likelihood of disability and not returning to work.

  The **Tampa Scale of Kinesiophobia** measures fear of movement. The mean for males (50 %ile is 40). A score of 44 indicates significant fear of movement.

  The **Fear Avoidance Scale** measures fear and avoidance as they relate to pain and activity. Work subscale scores above 34 and physical subscale scores above 14 are clinically significant. This indicates fear and avoidance related to day to day life and to work.

Case Related Risk Factors

- This patient presents with the following risk factors
  - Non-Malleable
    - Family history
  - Social/System
    - Multiple Work Related Issues
    - Possibly education/financial issues
  - Physical Factors
    - Waddell Signs
    - Multiple Tender Points
  - Yellow Flags
    - Mood disorder
    - Somatization
    - Fear and avoidance
    - Kinesiophobia

- Mark is at high risk for chronic pain/disability. This has been identified within 6 months of first presentation

Golden Age Comic (The Torch)

$208,000 (U.S.)

The first appearance of the Human Torch in the 1940s

What to Do

- There is a significant amount of evidence to support the identification of patients at risk for developing ‘chronic pain’, chronic disability
  - Stops treatments that are not helpful
  - Patients can be referred for appropriate care

Appropriate Care

- What is appropriate care?
  - Multidisciplinary pain program that meets IASP standards
    - Not a unimodal program
    - Not a group of practitioners working in the same building
    - Must be psychologically oriented in conjunction with activation.
      - The two components must be integrated.
      - More physical treatment will not help this population.
      - Psychotherapy will not lead to significant change in this patient population.

Case Part V

- Mark has multiple risk factors for developing chronic pain. Conservative care has not led to a positive result. You refer Mark for an assessment at a multidisciplinary pain management program.

Where to Find These Scales?

- www.pain-tools.co.cc
- Password=PainTools54
- Need Help?
  - Call 905-627-7300

The Hulk #1

$117,000 (U.S.)

More Take Home Skills

- Acupressure
- Relaxation Skill Training

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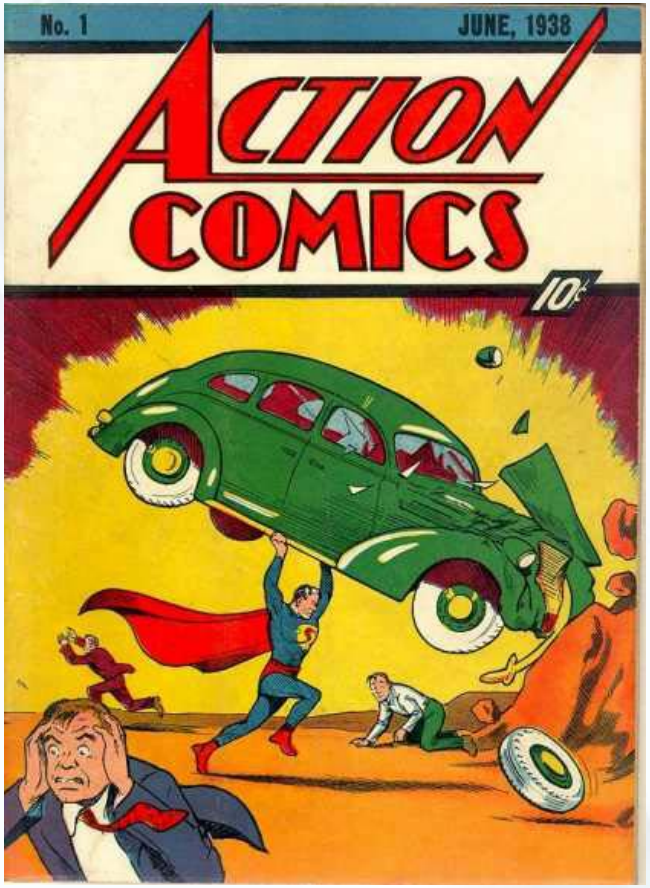
Superman Number 1



Action Comics 1 with the first appearance of Superman and the first comic book as we know it =

$450,000 U.S.

Finis