Oh What a Pain

Conundrums, Pitfalls and Pearls for Treating People Living with Chronic Pain

Images in this slideshow were drawn from the internet as well as generously shared by my talented patients

Connie Basch, MD September 2014

Topics for this Evening

- Pain Physiology – a brief overview
- Pain Pharmacology
- Nutrition in Pain
- Mindbody Interventions

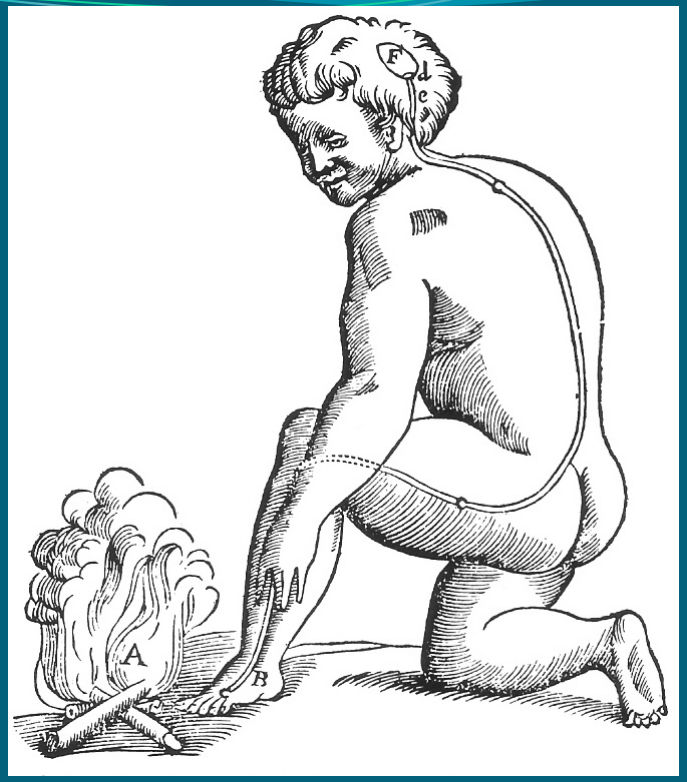
Rules of Tacks

- If you are sitting on a tack, it takes a lot of aspirin to make the pain go away.
- If you are sitting on 2 tacks, removing one does not lead to a 50% improvement in symptoms.

-Sid Baker, M.D.

Understanding Pain

Acute Pain



Adaptive:

Indicates tissue injury

Makes you get to safety

Chronic Pain

Tissue no longer at risk
Pain signaling persists

Maladaptive:

Ongoing message is harmful, not protective

Effects of Chronic Pain

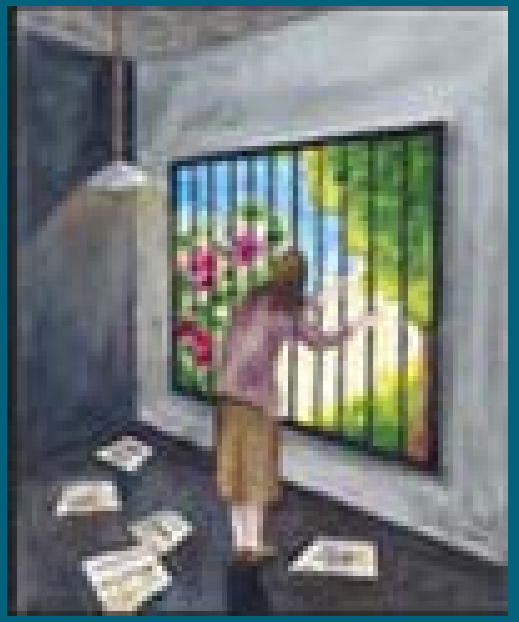
- Physical
- Psychological
- Spiritual

Effects of Chronic Pain

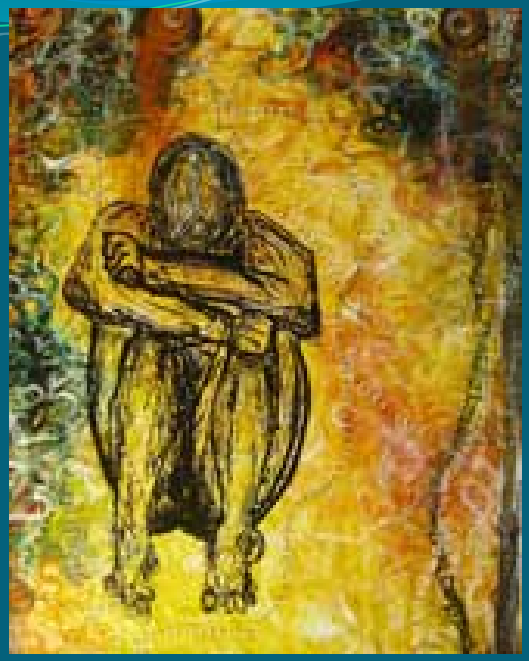
- Physical
  - Stress of chronic pain
  - Interrupted sleep
  - Poor wound healing
  - Decreased immunity
- Psychological
- Spiritual

Effects of Chronic Pain

- Physical
- Psychological
  - Emotional suffering
  - Depression
  - Isolation
  - Self-medication
- Spiritual



Effects of Chronic Pain



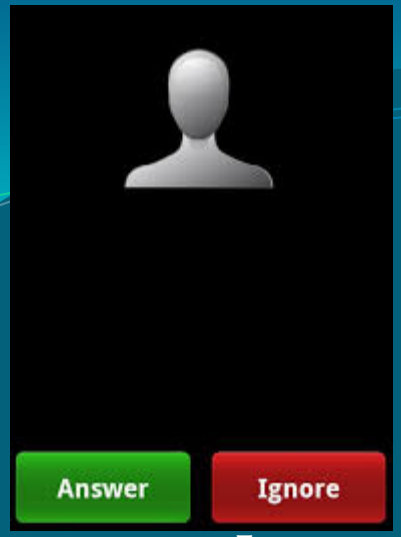
- Physical
- Psychological
- Spiritual
  - Reminder of mortality
  - At times perceived as a punishment or evidence of moral wrongdoing
  - Causes feelings of powerlessness
  - Hopelessness

Effects of Chronic Pain

- Under-treatment of CNP is common.
  - In one survey, 50% of CNP patients complained of inadequate pain relief and had considered suicide to escape the unrelenting agony of their pain.

So What Can We Do?

- Change Pain Perception



Imagine. . .

The brain has messages coming in and has caller ID.

- It can screen calls
- Some callers are filtered out altogether
- Some callers are amplified

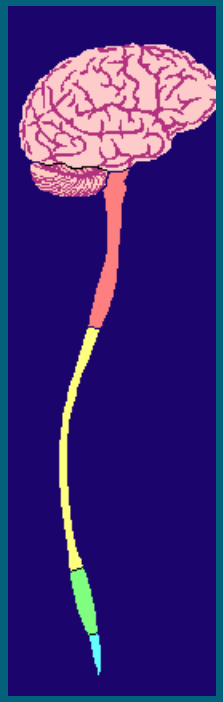
The messages reaching the brain depend not just on what is happening in the outside world, but also on how the messages are transmitted.

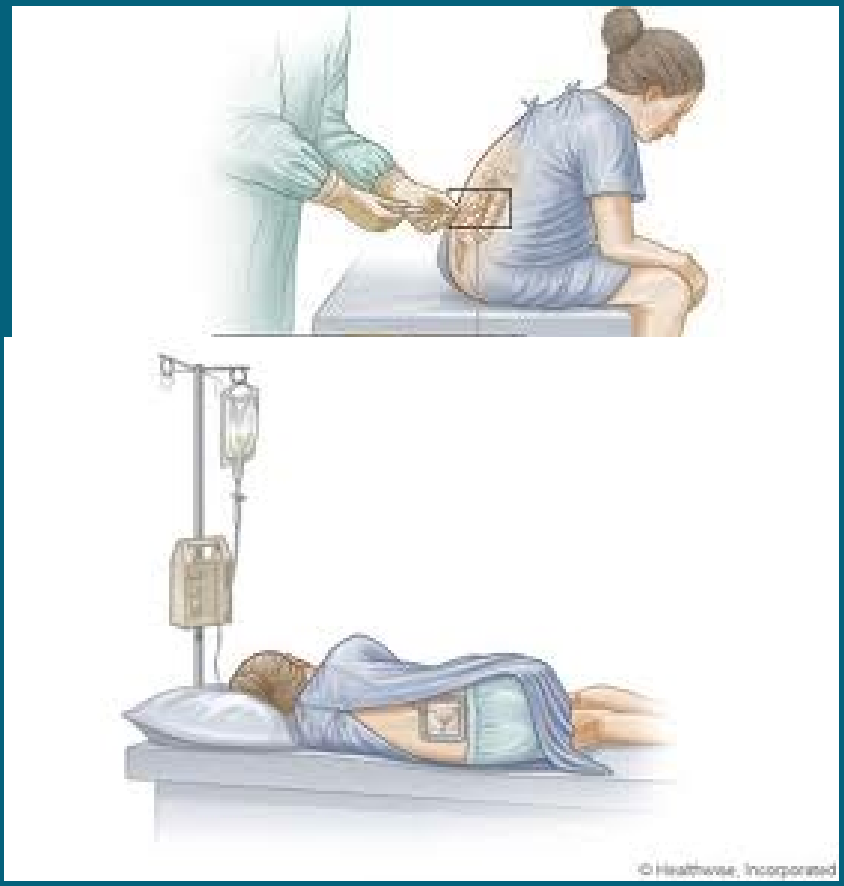
Pain Perception: the plot thickens Periphery

- Sensory Nerves
  - A-delta Fibers –well-localized and rapid message, respond to tissue pressure. Fatigue with repeated stimulation.
  - C Fibers –respond to noxious thermal, mechanical, or chemical stimuli. Slow message, poorly localized. Sensations are perceived as dull, aching, burning, and have input that does not fatigue or extinguish with repeated stimulation.
- Sensitization – chemical mediators from inflammation or injured tissue can sensitize small fibers, so that non-painful stimuli will be perceived as painful.

Pain Perception

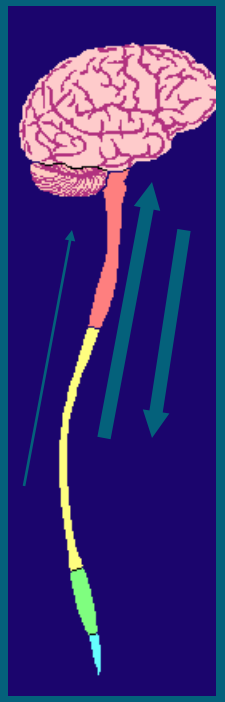
- Spinal Cord

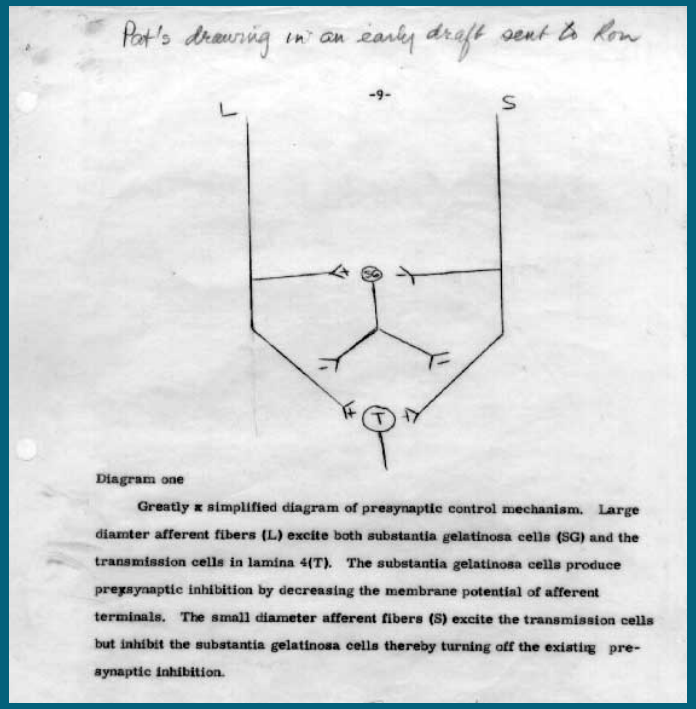




Pain Perception

- Spinal Cord
  - Modulation:
    - multiple signals coming in from periphery
    - Multiple messages coming down from the brain
      - Inhibition
        - Serotonin
        - Norepinephrine
        - Endorphin
      - Amplification





Pat's drawing in an early draft sent to Ron

-9-

L

S

SG

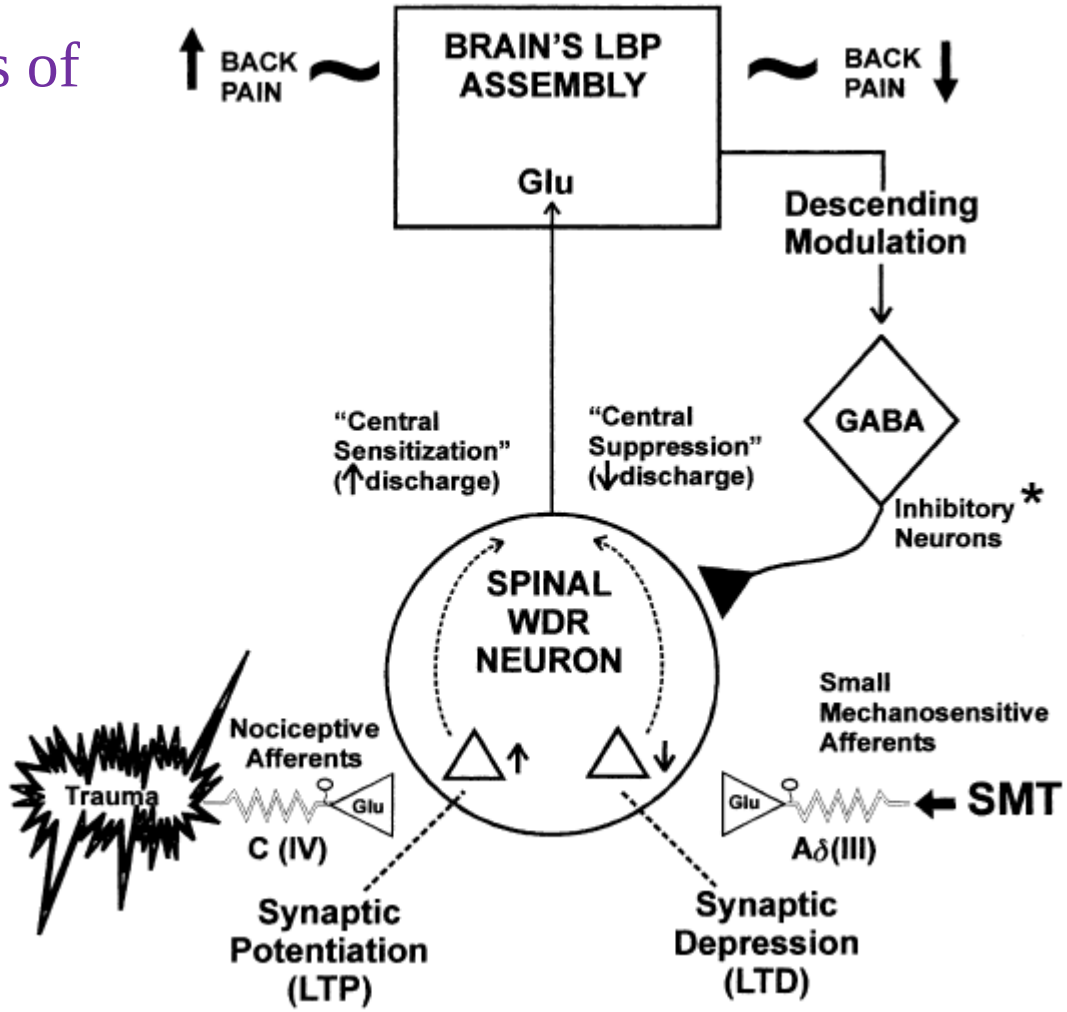
T

Diagram one

Greatly x simplified diagram of presynaptic control mechanism. Large diamter afferent fibers (L) excite both substantia gelatinosa cells (SG) and the transmission cells in lamina 4(T). The substantia gelatinosa cells produce prexsynaptic inhibition by decreasing the membrane potential of afferent terminals. The small diameter afferent fibers (S) excite the transmission cells but inhibit the substantia gelatinosa cells thereby turning off the existing pre-synaptic inhibition.

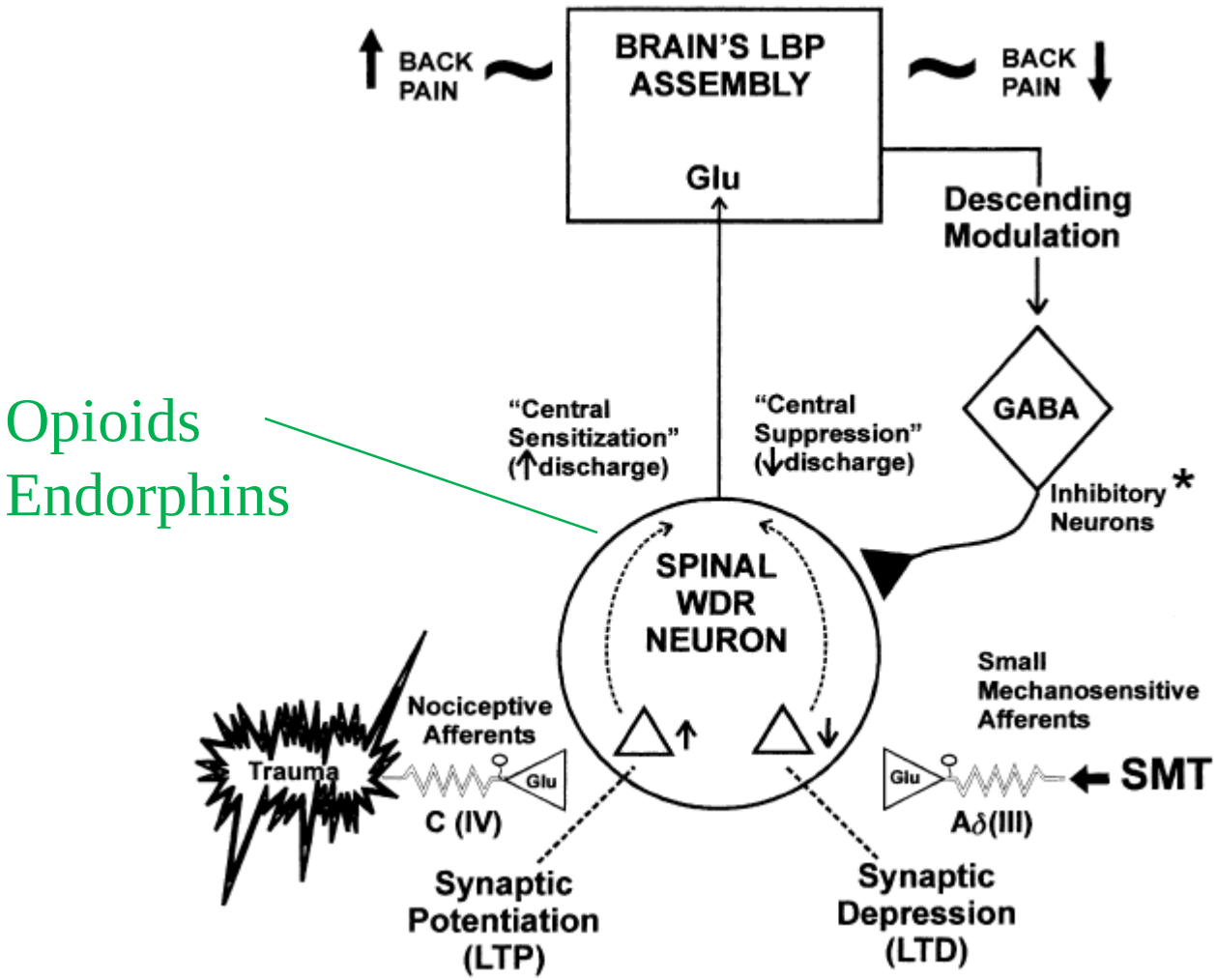
Pain Transmission Mechanism/Theory

Many Points of Intervention



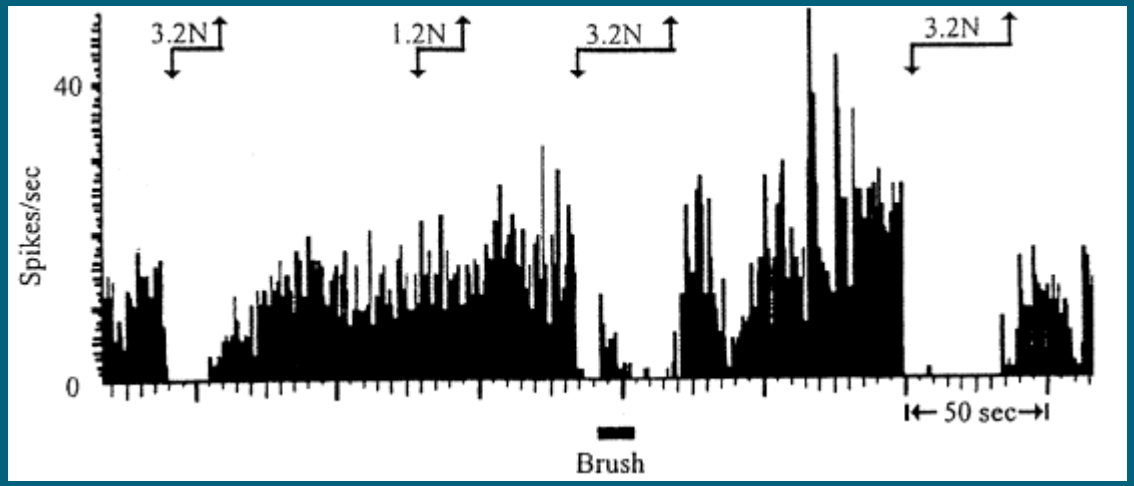
Don't worry – no test on this

Pain Transmission Mechanism/Theory



Gate Control Implications:

Mechanical Stimuli Can Decrease Pain Sensation

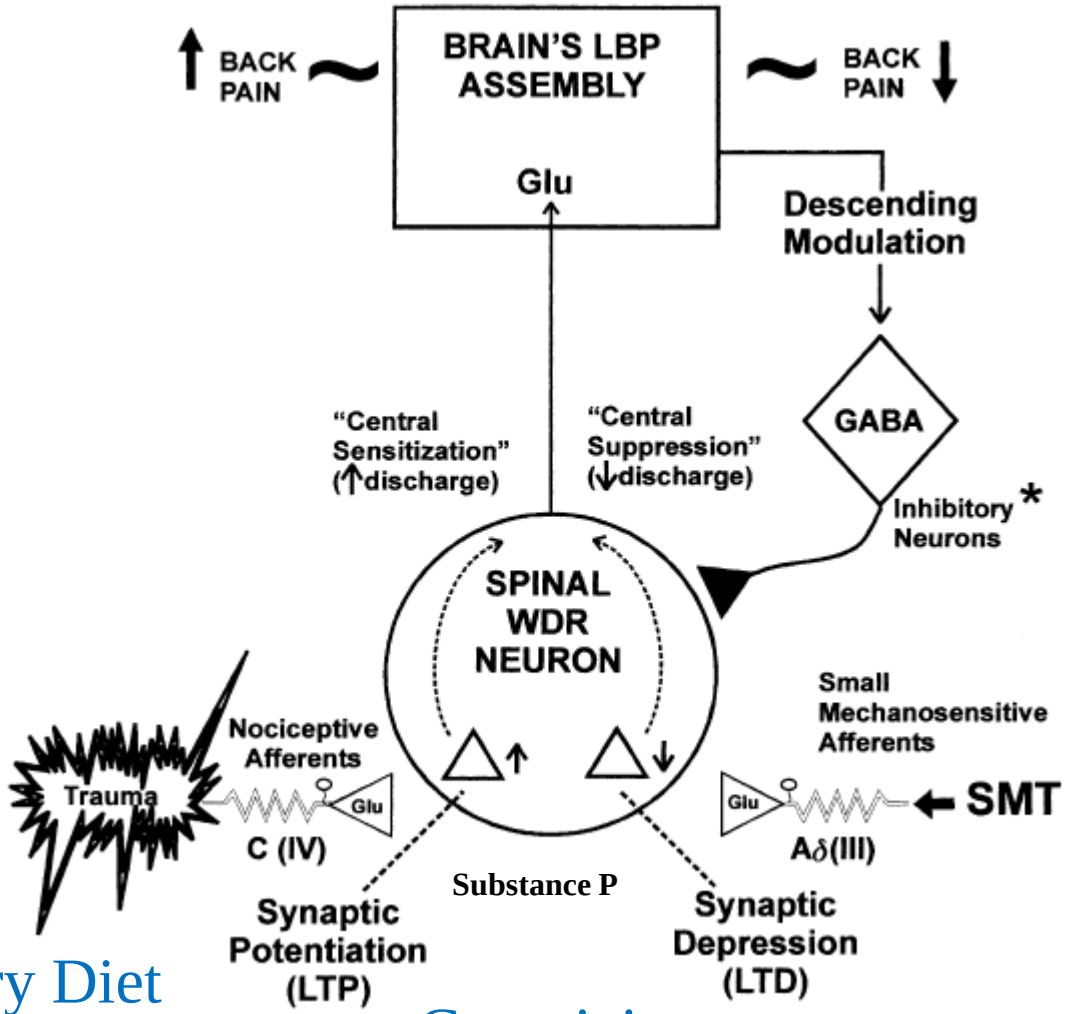


Chronically firing pain neurons can be “silenced” by intense mechanical stimuli.

Boal RW, Gillette RG. Central neuronal plasticity, low back pain and spinal manipulative therapy.

J Manipulative Physiol Ther. 2004 Jun;27(5):314-26

Pain Transmission Mechanism/Theory

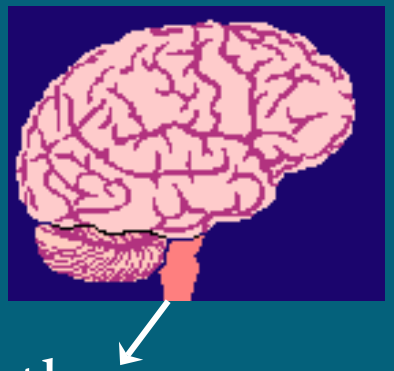


Infection
Inflammatory Diet

Capsaicin

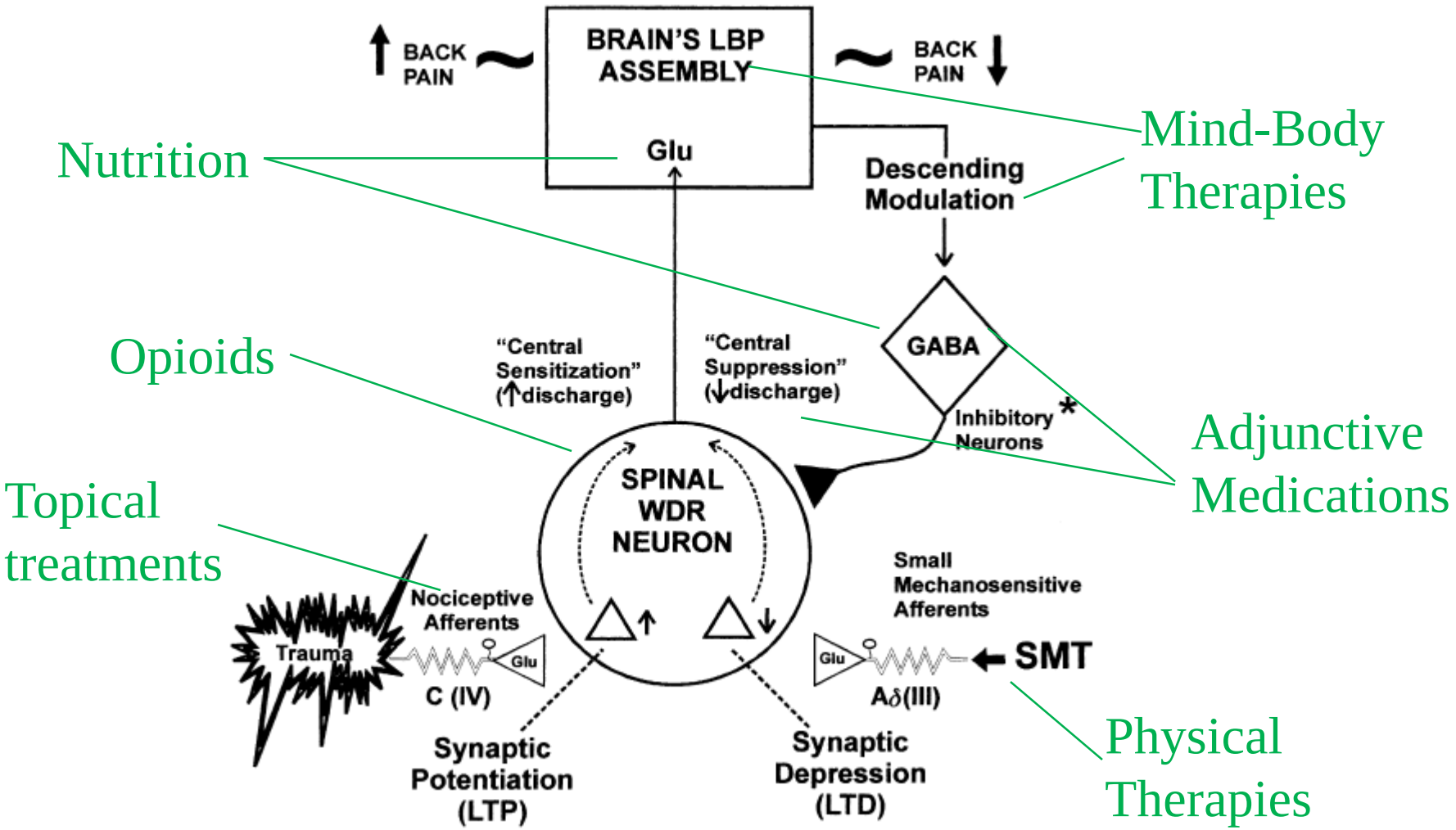
Massage
Chiropractic

Pain perception



- Brain
  - Can amplify or suppress the messages coming in
  - Gives meaning to the pain experience
    - Differences in pain levels of victims of automobile accidents vs. those responsible for the accident
    - Carolyn Myss insights, etc.
    - John Sarno and repressed anger

Gate Control Mechanism/Theory



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Symptom Management: Medical Treatment of Pain

WHO's pain ladder
- developed for cancer pain, now applied for nonmalignant chronic pain as well

Step 1: Non-Opioid Analgesics

- Aspirin
- Tylenol
- Other NSAIDs

Tylenol(acetaminophen) toxicity

- Chronic tylenol ingestion of 4000 mg per day (8 vicodin) can produce liver damage
- Lower doses can be toxic when fasting/not eating well or if taken with alcohol

- Extra strength tylenol has 500 mg
- Vicodin, norco, lortab have from 325 – 750 mg per tab
- Many cold and flu medicines have acetaminophen in them as well

Adverse effects of NSAIDs (Anti-inflammatory drugs):

- Stomach and GI tract
  - Ulcers and internal bleeding
  - Leaky Gut: Increased intestinal permeability
- Bones and Joints
  - Bone necrosis and cartilage destruction
  - Inhibition of cartilage synthesis
- Other organs
  - Liver damage
  - Kidney injury
- Death

NSAIDs and the Stomach

- 107,000 patients hospitalized per year for stomach complications
- **16,500 NSAID-related deaths occur each year among arthritis patients**

Am J Med. 1998 Jul 27; 105(1B): 31S-38S

The “safer” anti-inflammatories?

Merck to Withdraw Vioxx Because of Heart Risks

Sept. 30 (Bloomberg) -- Merck & Co. withdrew its Vioxx painkiller, which generated $2.5 billion in sales last year, because of a link to heart attacks and strokes. The company's shares slid as much as 28 percent, wiping out $28 billion in market value.

New three-year data from Merck suggested that patients taking Vioxx for more than 18 months faced twice the risk of a heart attack compared with those taking a placebo.

NSAIDs Block Joint Repair

In vivo studies with NSAIDs at physiologic concentrations have shown that several NSAIDs reduce glycosaminoglycan synthesis.

- Salicylate
- Acetylsalicylic acid
- Fenoprofen
- Isoxicam
- Tolmetin
- Ibuprofen

- "…femoral head collapse and **acceleration of osteoarthritis have been well documented in association with the NSAIDs…**" *Lancet*. 1985 Jul 6; 2(8445): 11-4

Another non-narcotic option: Devil's Claw

- Harpagophytum procumbens (Devil's claw) – 60 mg harpagoside per day
- Primarily analgesic, not much anti-inflammatory activity; in one study was as effective as vioxx for low back pain
- Try for 4-8 weeks

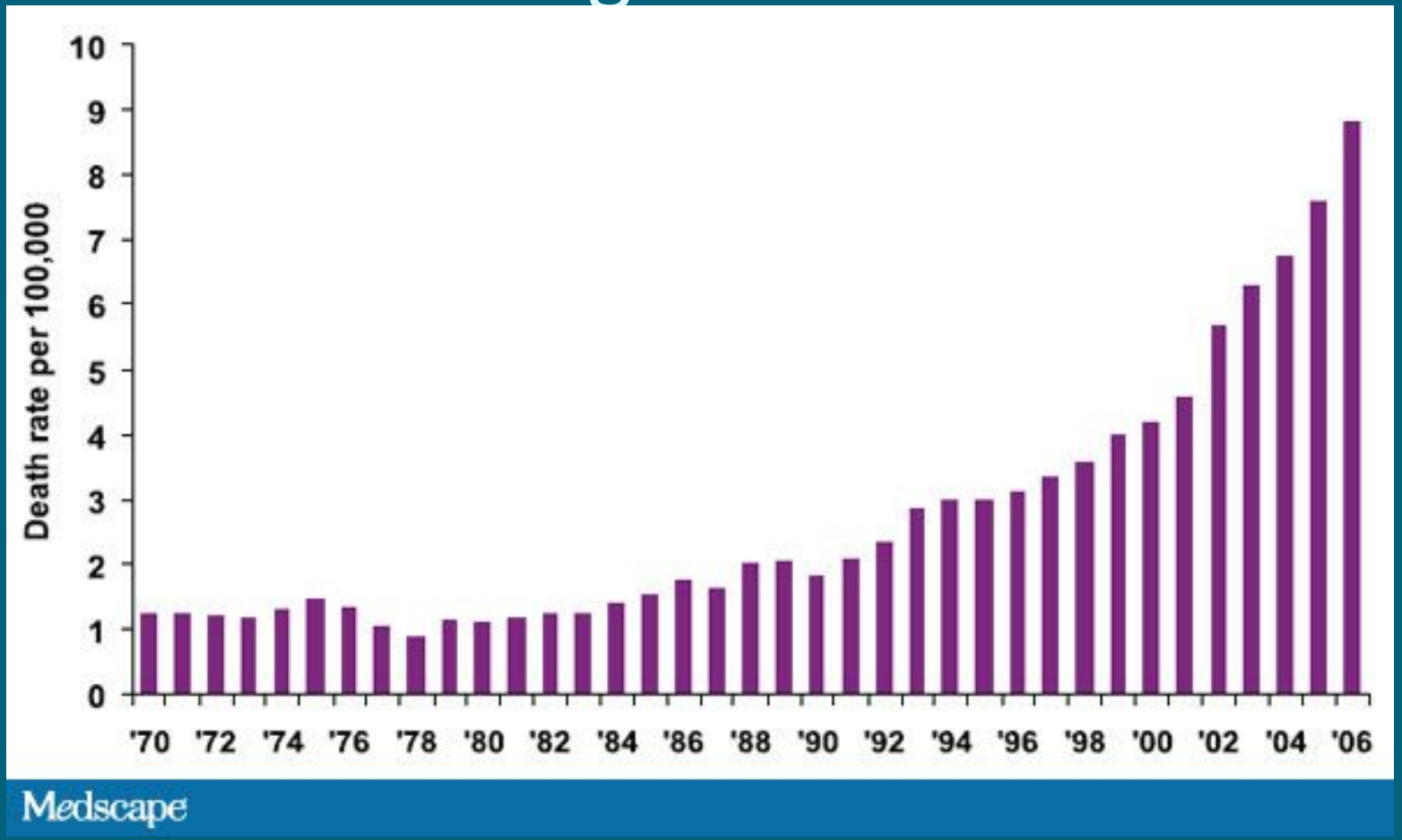
Tramadol = Ultram

- Milder version of an opioid
- Morphine and others bind to kappa and mu opioid receptors
- Tramadol binds to kappa but not mu
  - Less addictive potential
  - Works better in women than men
- Risk of seizures in excessive doses or in combination with some antidepressants

Opioids in Chronic Pain Management

- Benefits and Risks

Unintentional Drug Overdose Deaths



In 2007, there were over 28,000 unintentional drug overdose deaths in this country

Opioids in Chronic Nonmalignant Pain

- Side effects: constipation, sleep disruption, altered mental status, itching, nausea, respiratory depression
- Addiction vs. Dependence

- Bottom line:
  - Assessing whether medication improves quality of life and participation in life or diminishes them

Questions to Ask Before Starting:

- Have there been any other chemical (alcohol or drug) abuse problems in the person's life?
- Is there a family history of substance abuse?
- Is there a history of sexual abuse prior to adolescence?
- Is there psychological disease? (Depression, bipolar, OCD, ADHD, etc.)

Signs Someone is Being Harmed more than Helped by Pain Medication

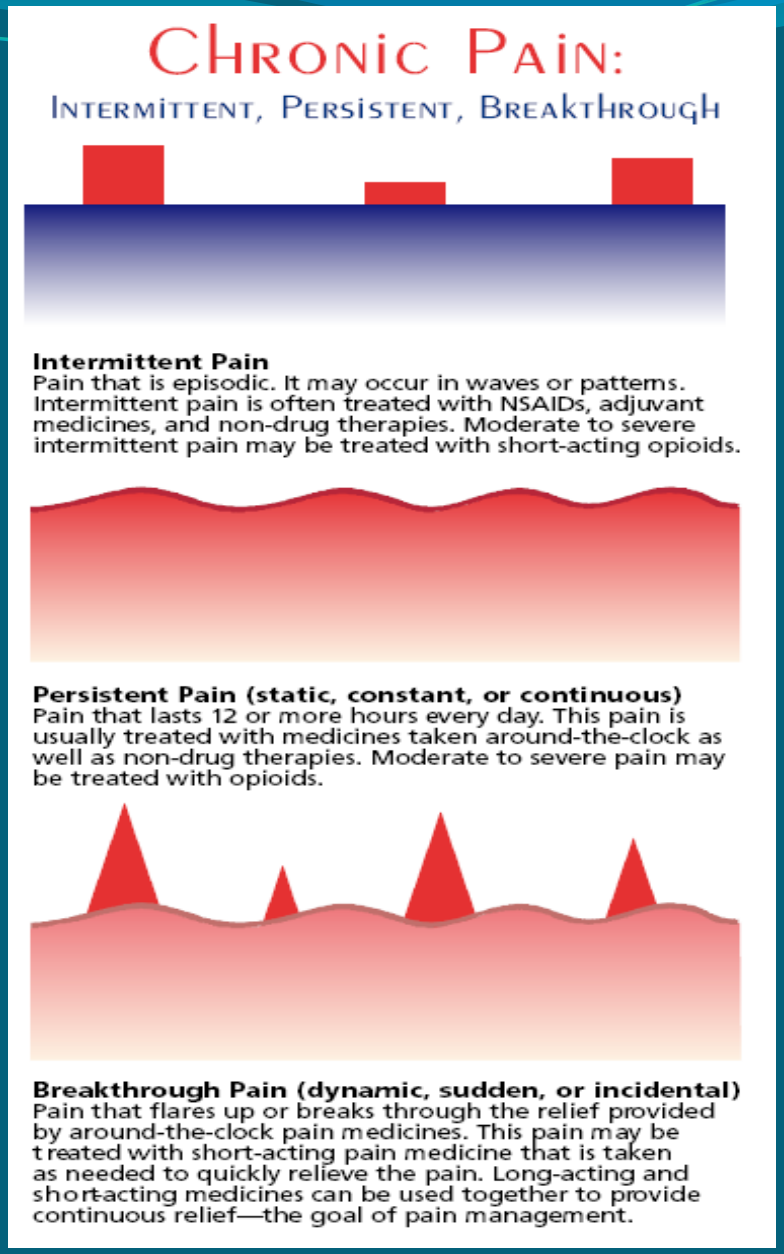
- Sleeping too much or having days and nights confused
- Decrease in appetite
- Inability to concentrate or short attention span
- Mood swings (especially irritability)
- Lack of involvement with others
- Difficulty functioning

Therapists may be in a unique position to observe this and give feedback to prescribers

Questions for Patient Self-reflection:

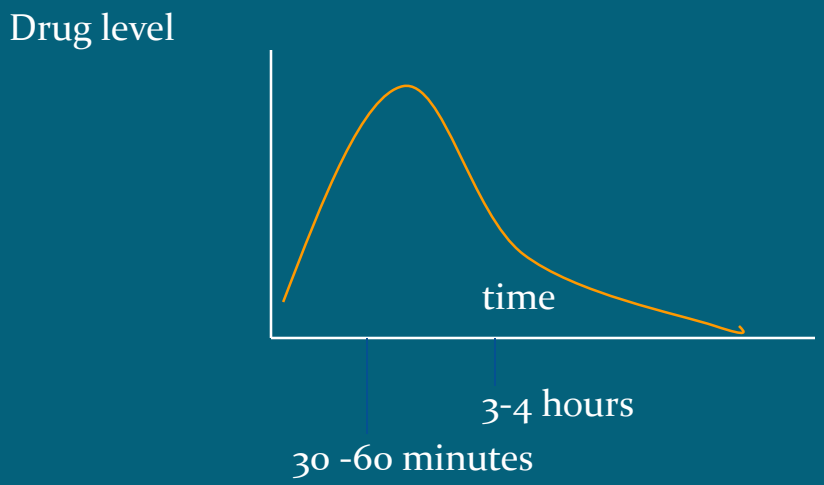
- *Is your day centered around taking medication?*
- *Do you spend most of the day resting, avoiding activity, or feeling depressed?*
- *Are you able to function (work, household chores, and play) with pain medication in a way that is clearly better than without?*

Proper use of opioid pain medications

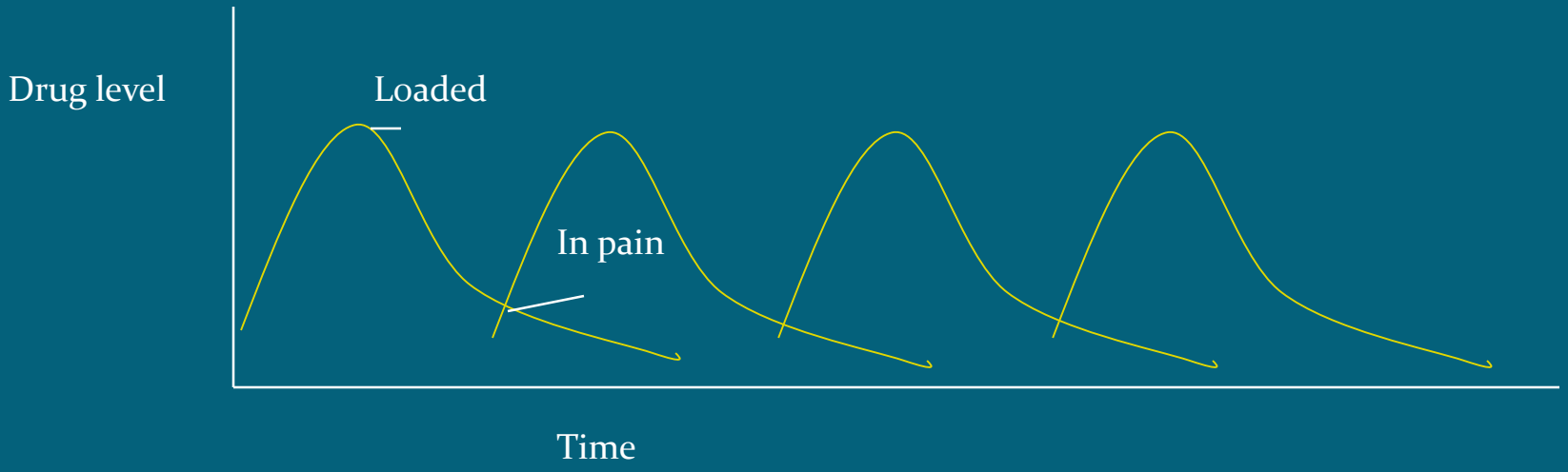


Timing

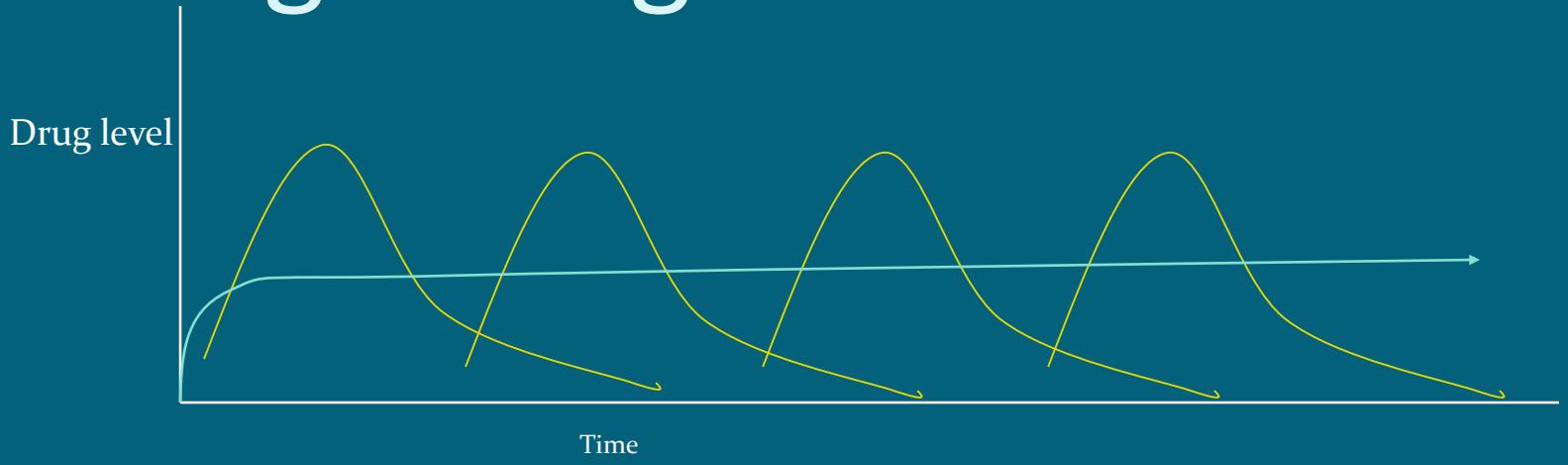
- Short-acting/Rescue medications: codeine, hydrocodone, oxycodone, morphine



Problems with Short-acting Medications



Long-acting narcotics:



- Fentanyl patches (Duragesic)
- Methadone
- MS Contin
- OxyContin
  - Need to be dosed on a schedule, <u>not</u> prn

Opioid-induced Hyperalgesia

- Animal studies show that repeated opioid administration. . . can lead to a progressive and lasting reduction of baseline nociceptive thresholds, resulting in an increase in pain sensitivity.
- The decreased baseline nociceptive thresholds lasted as long as 5 days after the cessation of four fentanyl bolus injections

Opioid-induced Hyperalgesia

- Six chronic low back pain patients
- Quantitative sensory testing (cold and heat) before and after starting oral morphine
- Preliminary results showed hyperalgesia and tolerance with cold but no hyperalgesia with heat or analgesic tolerance to heat pain.

- Chu L.F., Clark D.J., Angst M.S.: Opioid tolerance and hyperalgesia in chronic pain patients after one month of oral morphine therapy: a preliminary prospective study. *J Pain* 7. (1): 43-48.2006

Opioid-induced Hyperalgesia

- **A number of case reports document decreases in pain with stopping opioids**

- Wilson G.R., Reisfield G.M.: Morphine hyperalgesia: a case report. *Am J Hosp Palliat Care* 20. (6): 459-461.2003
  Mercadante S., Ferrera P., Villari P., et al: Hyperalgesia: an emerging iatrogenic syndrome. *J Pain Symptom Manage* 26. (2): 769-775.2003;
- Heger S., Maier C., Otter K., et al: Morphine induced allodynia in a child with brain tumour. *BMJ* 319. (7210): 627-629.1999;
- Sjogren P., Jensen N.H., Jensen T.S.: Disappearance of morphine-induced hyperalgesia after discontinuing or substituting morphine with opioid agonists. *Pain* 59. 313-316.1994;

- Mechanism may be NMDA receptor-mediated central sensitization

So why/when use them?

- Opioids are most helpful in Acute Pain

- In Chronic Pain, I recommend them as a bridge:
  - Premedicate to increase activity level
  - Medicate to get good, deep sleep

  - As sleep improves and activity improves, try to wean

Stopping or Tapering Opioids

- Withdrawal Symptoms
  - Anxiety/Restlessness
  - Sweating
  - Insomnia
  - Diarrhea
  - Nausea, vomiting
  - Yawning, rhinorrhea (runny nose)
  - Transient increase in pain

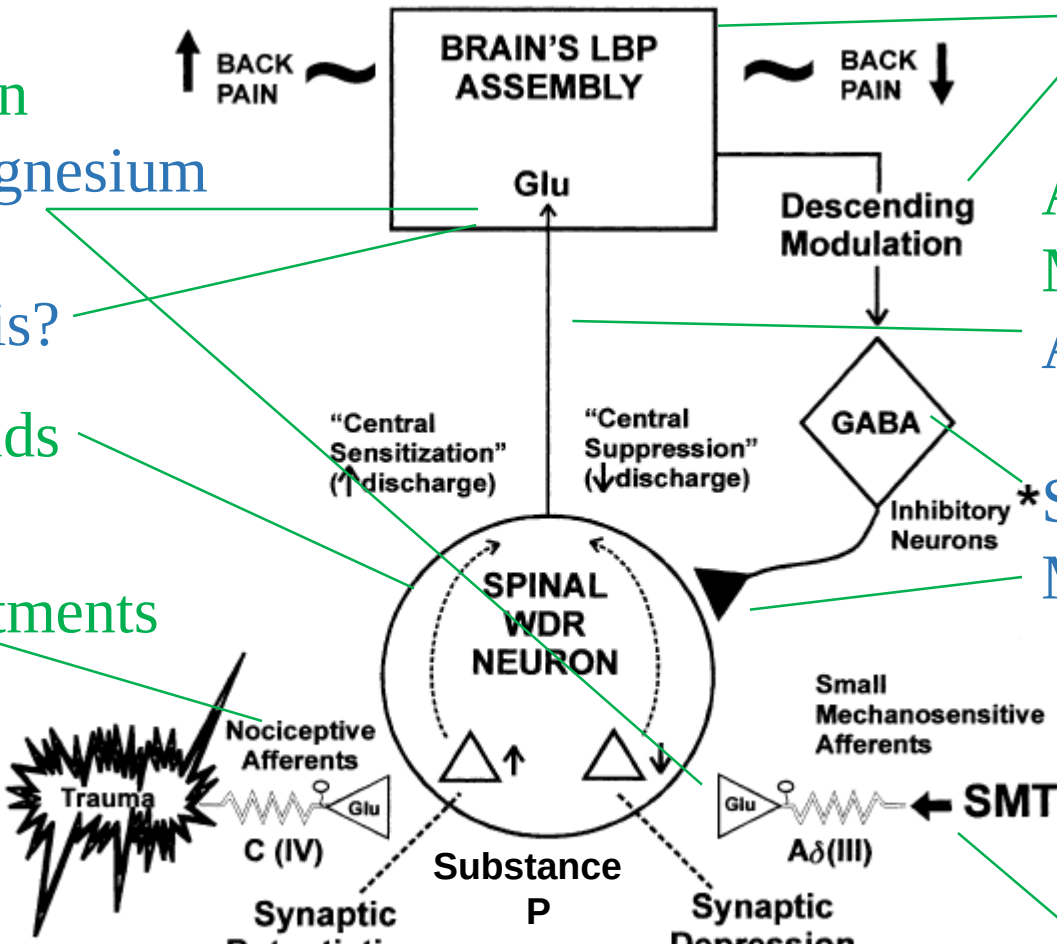
Treatment of Withdrawal

- Each of the symptoms of withdrawal can be treated, and herbal support is also available for opioid withdrawal
  - Suboxone
  - Passionflower
  - Clonidine
  - Lomotil
  - Hydroxyzine
  - Trazodone
  - Etc.

Adjunctive Medications

- Topical – lidocaine, capsaicin, anti-inflammatories, other
- Antidepressants
- Anticonvulsants
- Antiarrhythmic drugs
- Cannabis

Adjunctive Therapies



Nutrition

Magnesium

Cannabis?

Opioids

Topical treatments

Anti-inflammatory

Turmeric

Capsaicin

Lidocaine

Mind-Body Therapies

Adjunctive Medications

Antidepressants

*Seizure Medications

Physical Therapies

Antidepressants for Pain

- Work by affecting neurotransmitters
- Do not only work for treating pain by improving depression.
  - Work as well in non-depressed people as in people with depression
  - Effectiveness for pain does not correlate with effectiveness for depression
- Do not work for all types of pain.

Cannabis in Pain

- Cannabis is more effective than placebo in chronic pain, especially neuropathic and MS-related pain and spasticity
- As an adjunct to opioids, THC improved pain-related QOL
- May be opioid-sparing and may decrease tolerance and withdrawal from opioids
- Significant side effects, esp dizziness, can be seen
  - Euphoria NNH 8
- Works on CB1 receptors in periaqueductal gray but also G protein receptors and transient receptor potential channels (other cannabinoids, not just CBD, THC) – strain matters

Pharmacotherapy 2013;33(2):195–209 J Psychoactive Drugs, 44 (2), 125–133, 2012
Current Medical Research and Opinion, 2007; 23,(1) p17, (17-24)
Pain Medicine, 2009; 10,(8) p1353, (1353-1368)

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The Research Supports: Vegetarian or Vegan Diet

- A 3-week vegetarian diet in FMS patients
  - Decrease pain scores – in 19 of 30 participants
  - Decrease blood test markers of inflammation
- Similar studies in RA and related conditions

- BMC Complement Altern Med. 2001; 1: 7
- Plant Foods Hum Nutr. 1993 Jan;43(1):55-61
- Scandinavian Journal of Rheumatology Volume 29, Number 5 / October 27, 2000
- Bangladesh Med Res Counc Bull. 2000 Aug;26(2):41-7.
- Toxicology. 2000 Nov 30;155(1-3):45-53.

- What foods to eat :
  - fresh fruits, salads, raw vegetables, carrot juice, nuts, seeds, whole grain products, tubers, flax seed oil, extra virgin olive oil

- What foods to avoid:
  - alcohol, caffeine, foods containing refined sugar, corn syrup, refined and/or hydrogenated oil, refined flour, dairy, eggs, and all meat

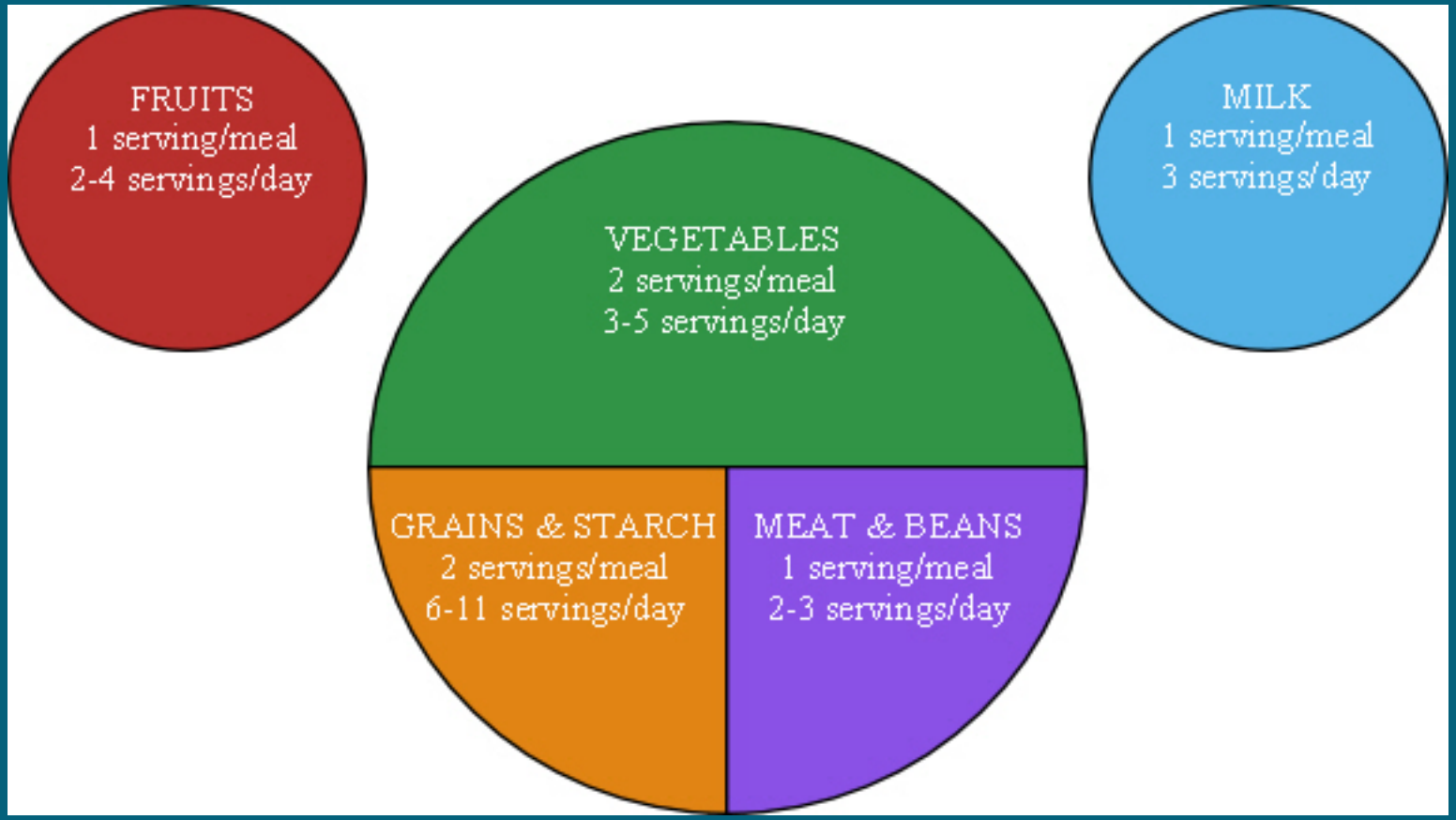
"Each serving contains 17 grams of Who Cares, 22 grams of Mind Your Own Business and 54 grams of Shut Up And Let Me Enjoy My Food!"

Making Changes in What We Eat

- Stages of Change: Big lifestyle changes like a change in the diet require preparation, emotional as well as logistical

- Generally easier to add “good” foods than to eliminate the “bad” ones we crave

The Healthy Plate



Rules of Tacks

- If you are sitting on a tack, it takes a lot of aspirin to make the pain go away.
- If you are sitting on 2 tacks, removing one does not lead to a 50% improvement in symptoms.

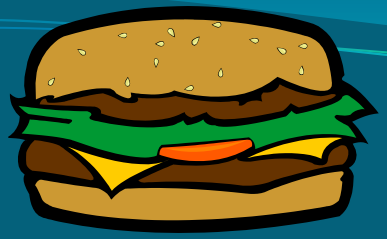
-Sid Baker, M.D.

Dietary Tacks

- Sugar
- Bad Fats
- Excitotoxins
- Food Allergies

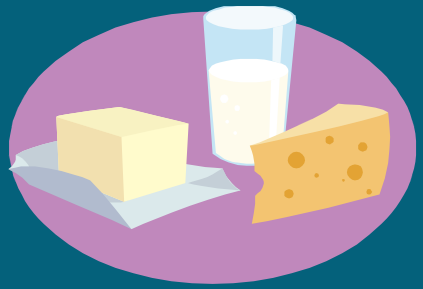
Sugar (and high GI foods)

- Feeds bad flora (yeast and other baddies)
- Insulin causes weight gain
  - causes storage of carbs rather than burning them as fuel
- Reactive hypoglycemia causes stress hormone release
- Fibrofog – memory problems, decreased concentration
  - Exacerbation of trigger points
  - Mood swings and irritability
  - Sleep disturbance
  - Fluid retention
  - Carbohydrate craving



Bad Fats

- Saturated fats (animal fat – butter, lard, meat, etc.)
  - Probably coconut oil as well
- Omega-6 vegetable oils (corn oil, safflower oil, etc.)
- Trans Fats - “hydrolyzed”



Contribute to inflammation

– raw materials for prostaglandins

MSG and Aspartame - Excitotoxins

- Stimulate the glutamate receptors
- Latter may generate formaldehyde

- **Relief of fibromyalgia symptoms following discontinuation of dietary excitotoxins JD Smith, CM Terpening, SO Schmidt, and JG Gums**

BACKGROUND: Fibromyalgia is a common rheumatologic disorder that is often difficult to treat effectively. CASE SUMMARY: Four patients diagnosed with fibromyalgia syndrome for two to 17 years are described. All had undergone multiple treatment modalities with limited success. All had complete, or nearly complete, resolution of their symptoms within months after eliminating monosodium glutamate (MSG) or MSG plus aspartame from their diet. Complementary Health Practice Review, Vol. 8, No. 3, 234-245 (2003)

What has Aspartame?

- Nutrasweet
- Diet Coke and other diet soda
- Crystal Light
- Sugar-free yogurt
- Sugar-free gum
- Etc. . .

MSG

- Chinese Food
- Many packaged foods –
  - labeled as “Natural Flavoring”
  - Sodium caseinate
  - Textured protein
  - Etc.

Food Allergies

- Cause Leaky Gut, which causes:
  - Increased inflammation in the system with C fiber sensitization
  - Immune activation which may contribute to autoimmune disease
  - Malabsorption of nutrients, which causes malnutrition

Food Sensitivities

- One third of the patients with rheumatoid arthritis, ankylosing spondylitis and psoriatic arthropathy reported aggravation of disease symptoms after intake of certain foods while 43% of the patients with juvenile rheumatoid arthritis and 42% of the patients with primary fibromyalgia stated the same. . . . Less pain and stiffness were reported by 46% of the patients and 36% reported reduced joint swelling when these were avoided

  Clin Rheumatol. 1991 Dec;10(4):401-7. Diet and disease symptoms in rheumatic diseases--results of a questionnaire based survey.Haugen M, Kjeldsen-Kragh J, Nordvag BY, Forre O.

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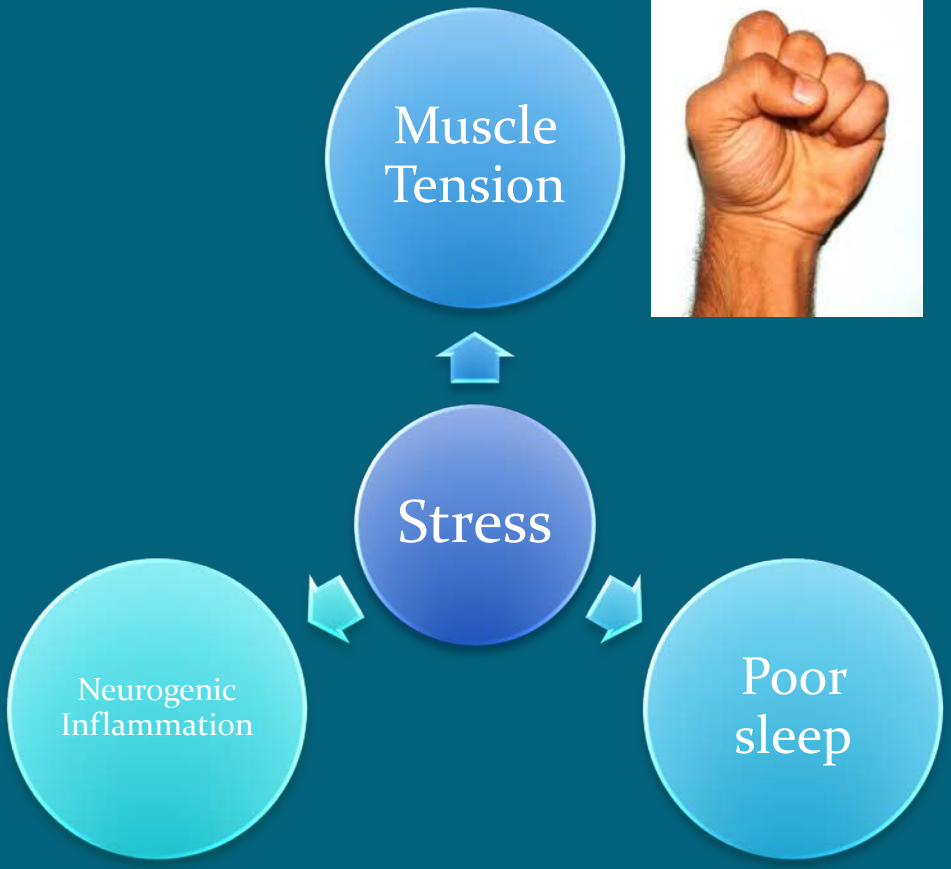
Mindbody Interventions

- Stress and Pain
- Relaxation Techniques
- Focus on the Positive
- Sarno, Schubiner –
  - Addressing pain generated by the mind

Emotions, & Stress Causing Pain



Vicious Cycle

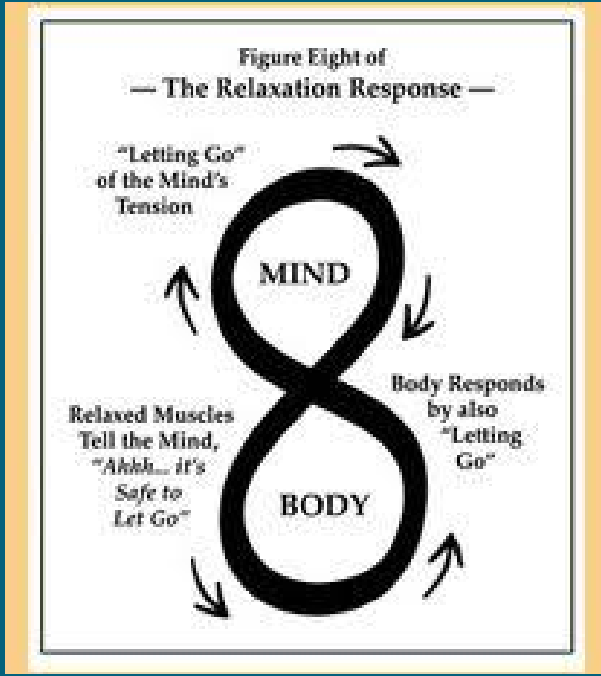
Vicious Cycles

Mindbody Interventions

- Stress and Pain
- Relaxation Techniques
- Focus on the Positive
- Sarno, Schubiner –
  - Addressing pain generated by the mind

The Relaxation Response

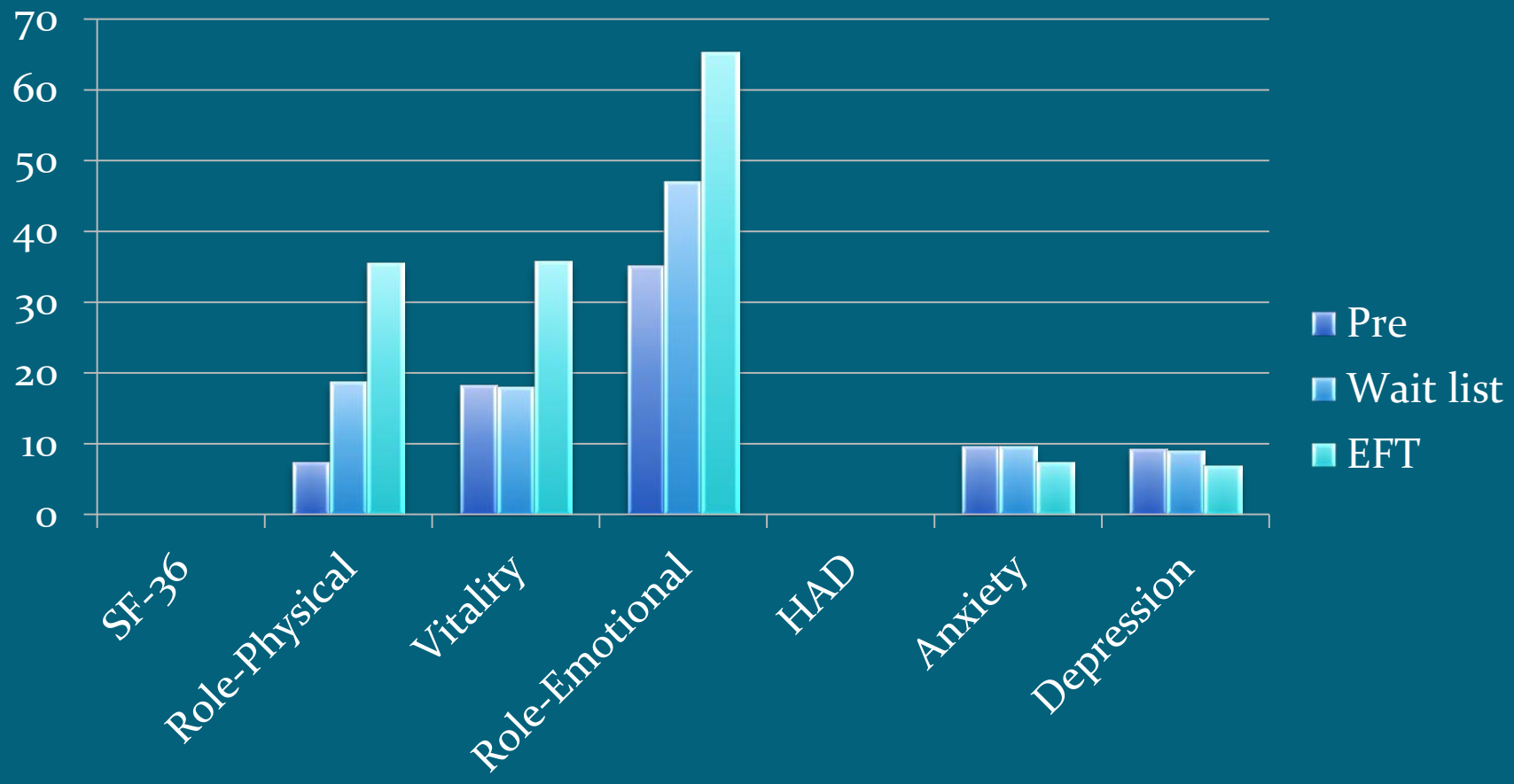
- Counterbalancing mechanism to the F/F/F Response
- Sympathetic versus Para sympathetic nervous System
  - ⬇Metabolism
  - ⬇ Heart rate
  - ⬇ Blood Pressure
  - ⬇ Breathing Rate
  - ⬇ Muscle Tension
- May be consciously elicited
- Generally needs to be practiced

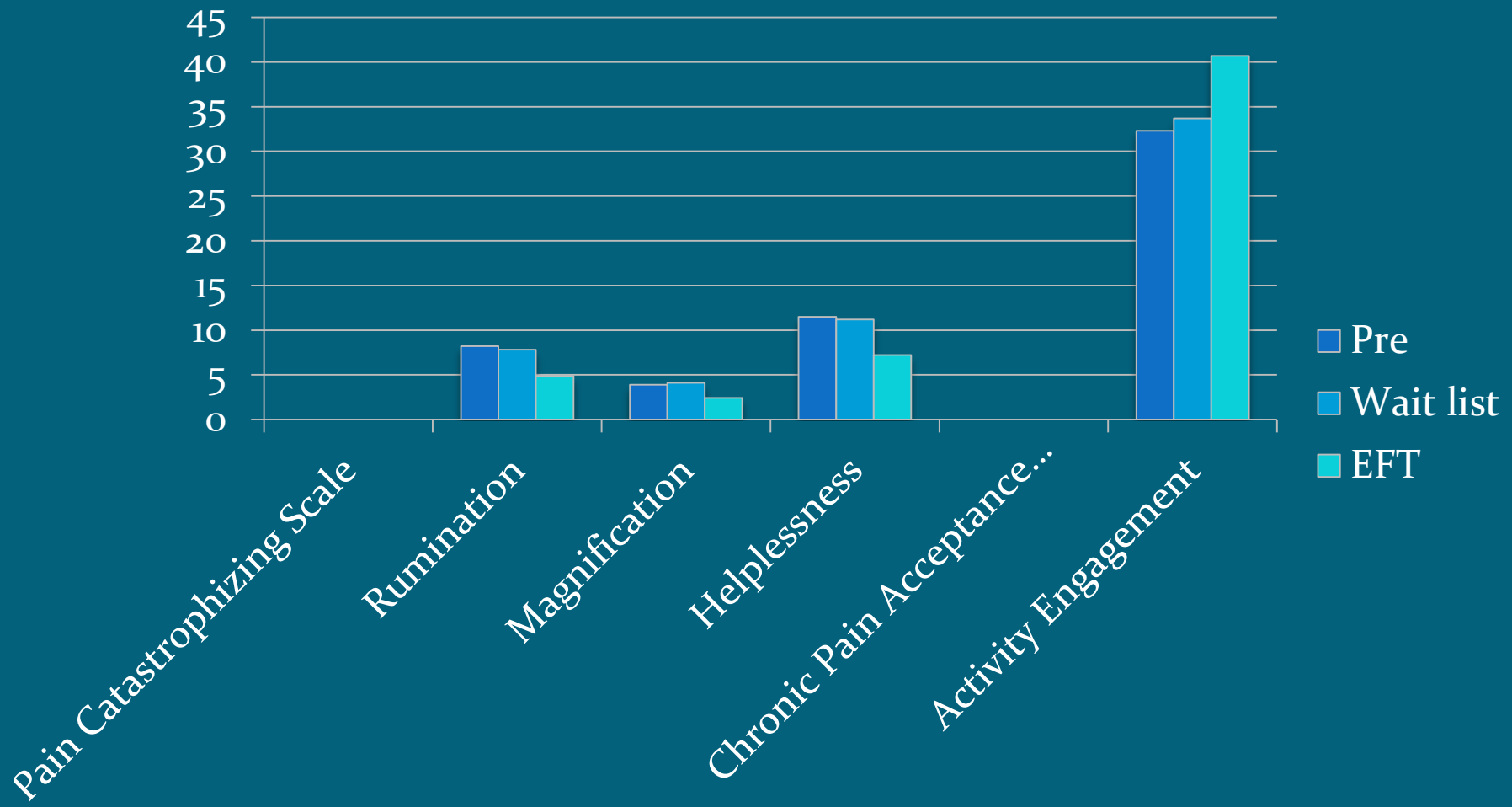


Pearls for Relaxation Techniques in people with pain

- Everyone is different
  - We offer a cafeteria style – lots of options, a "no thank-you" helping of each
- Breathing
- Guided Imagery and focused healing
- Mindfulness and the detached observer
- EFT
- Caveat: We have found PMR NOT to be well-accepted

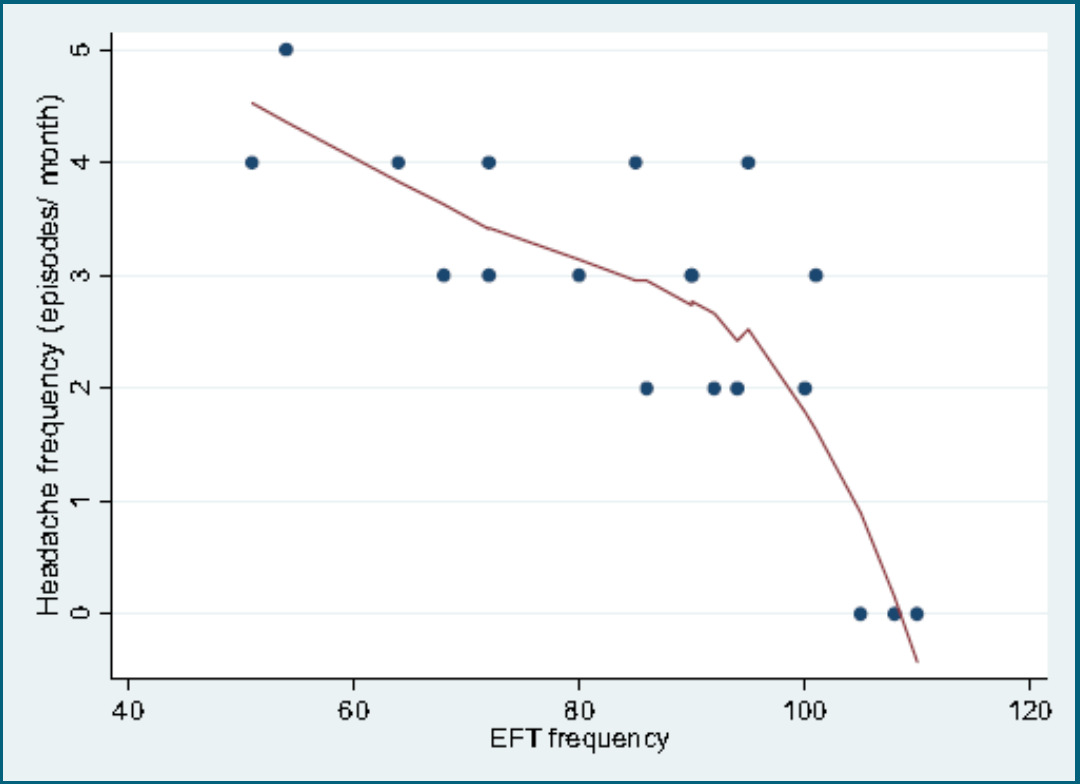
Fibromyalgia – 8 weeks




45
40
35
30
25
20
15
10
5
0
Pain Catastrophizing Scale
Rumination
Magnification
Helplessness
Chronic Pain Acceptance...
Activity Engagement
Pre
Wait list
EFT

All p<0.001

Tension Headache



Times performed in 2 months

- *Also improved sleep, decreased perceived stress*

Explore 2013; 9:91-99.

Mindbody Interventions

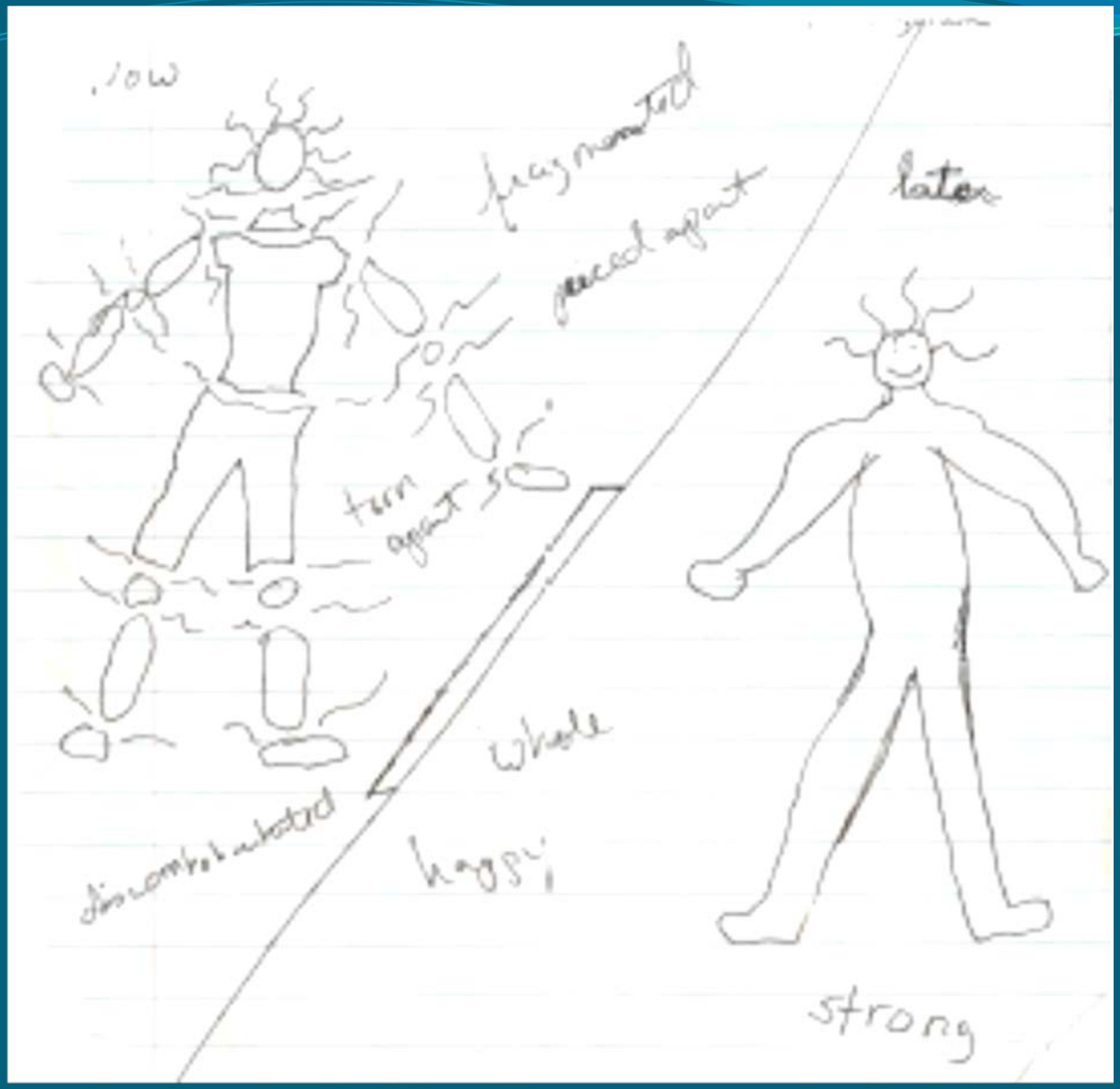
- Stress and Pain
- Relaxation Techniques
- Focus on the Positive
- Sarno, Schubiner –
  - Addressing pain generated by the mind

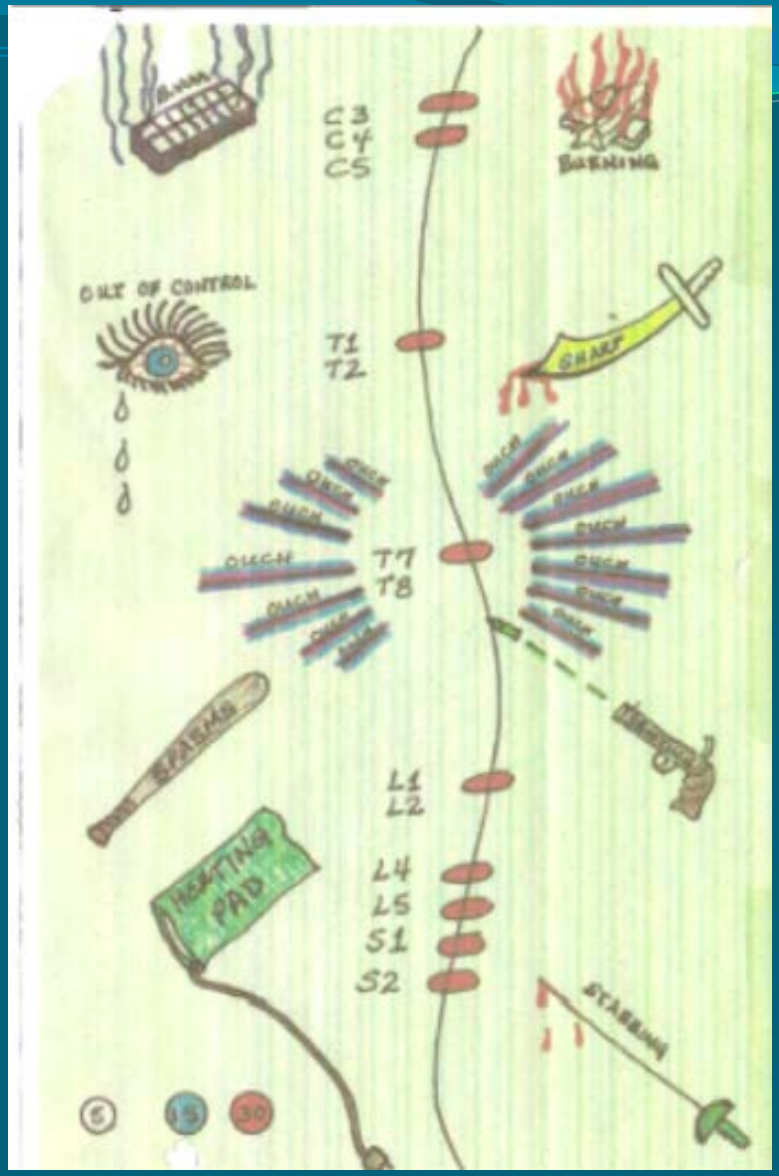
Changing Focus to the Positive

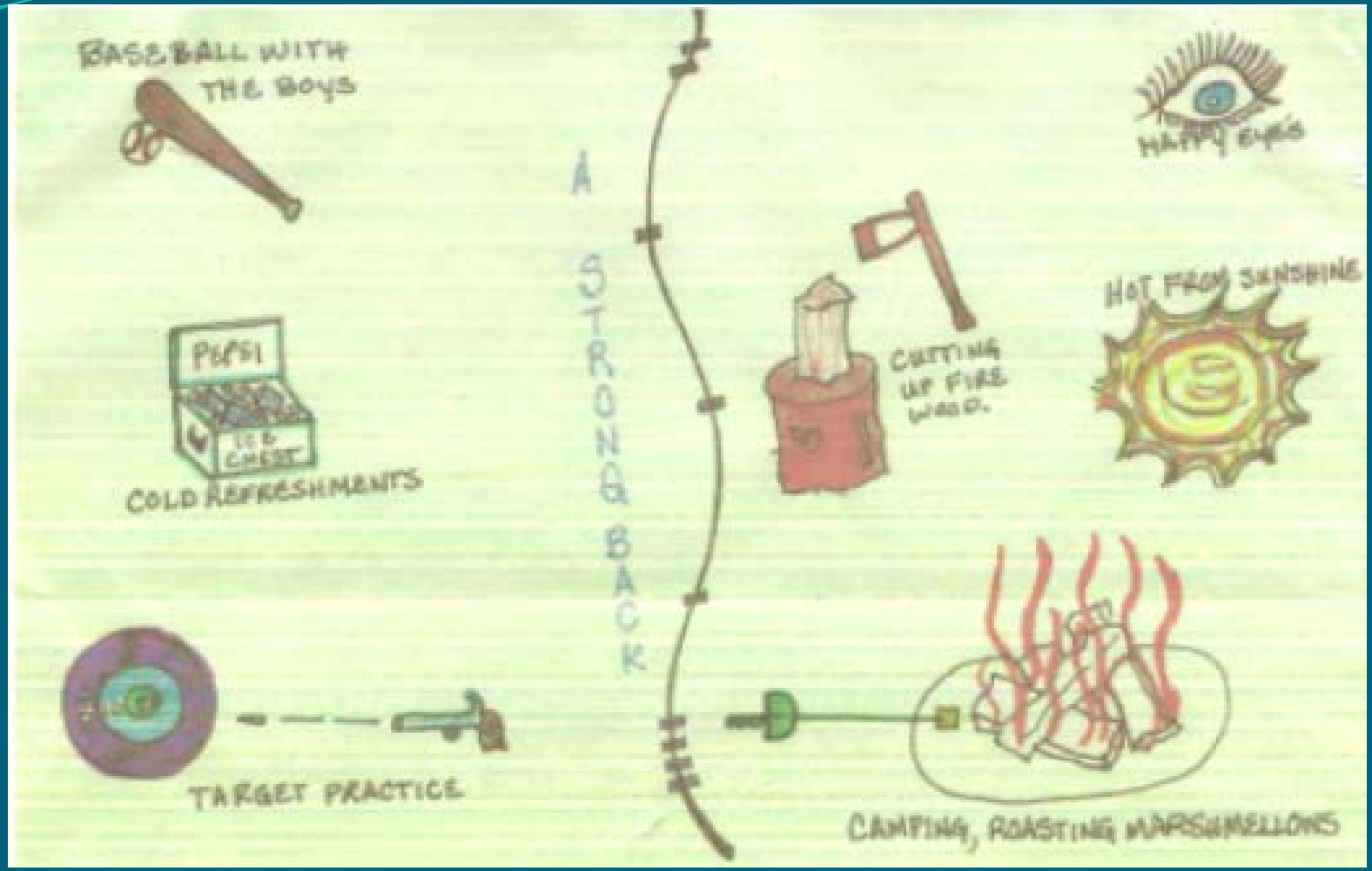
- Self-portrait exercise
- CBT – David Burns's Work
- Gratitude
- Forgiveness
  - Changing the Channel
  - Rewriting the victim story
- The power of groups

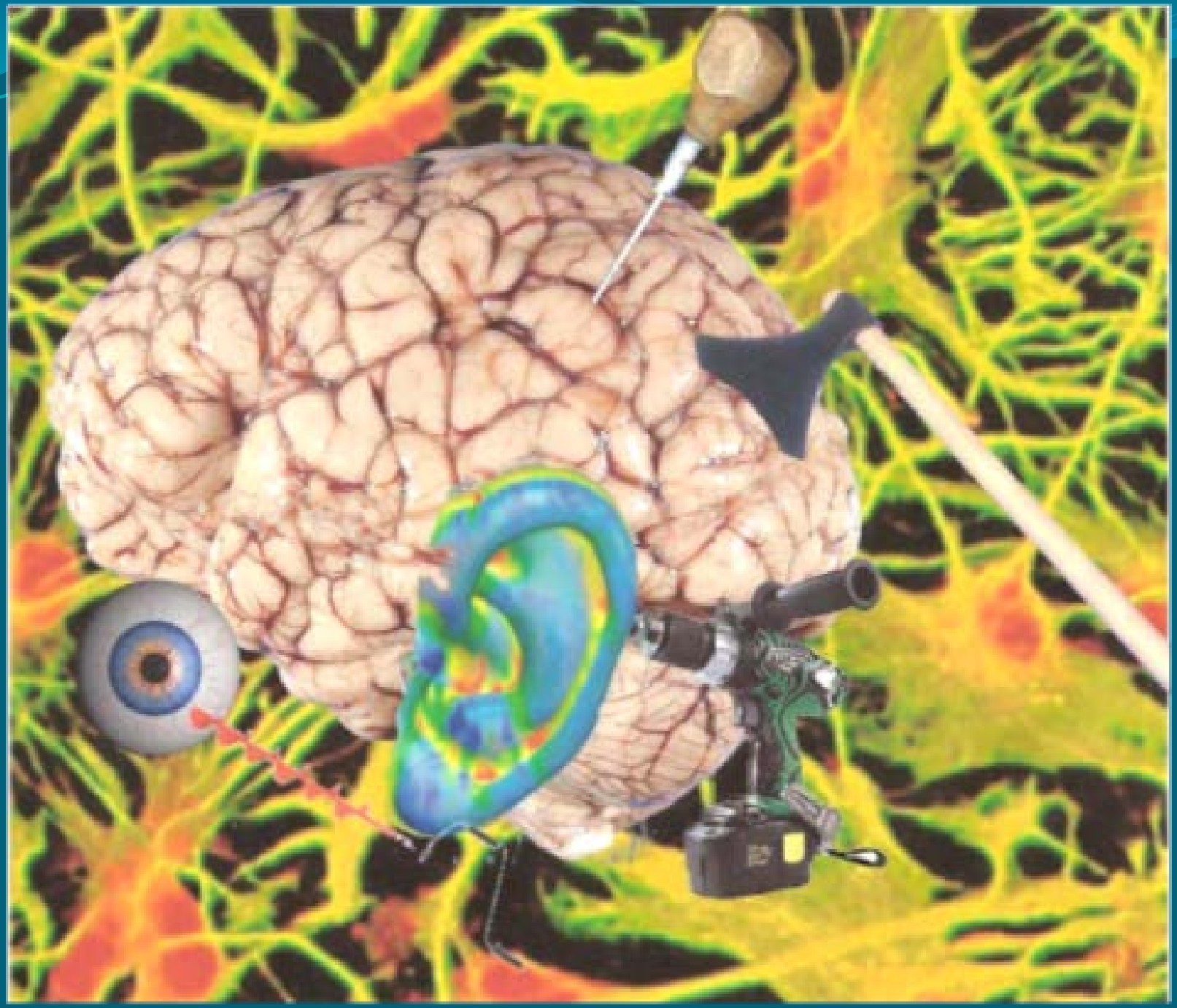
Self Portrait Exercise

- Draw a picture of you and your pain, using any medium, or describe this in words
- Then draw or describe yourself as you intend to be in the future, with healing


later
strong
whole
happy
turn apart
feet apart


C3
C4
C5
BURNING
OUT OF CONTROL
T1
T2
SHARP
OUCH
T7
T8
STABBING
L1
L2
L4
L5
S1
S2
HEATING PAD
STABBING
5
15
30


BASEBALL WITH THE BOYS
A STRONG BACK
HAPPY EYES
PEPSI
ICE CREAM
COLD REFRESHMENTS
CUTTING UP FIRE WOOD.
HOT FROM SUNSHINE
TARGET PRACTICE
CAMPING, ROASTING MARSHMELLOWS



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Cognitive Distortions in Pain

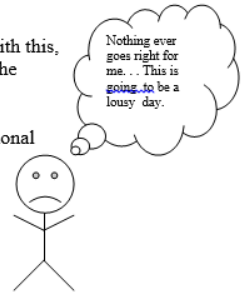
- Catastrophization in particular is associated with worse prognosis in pain patients

Sample Daily record of Automatic Thoughts (Self-Talk)

Date	Situation	Automatic Thoughts	Physical response	Emotional response	Cognitive Distortion	Changed thought
Example: 1/02/00	Pain flare-up	*Can't take this. I can't do anything.*	Inc. tension *Crying*	Helpless *Frustrated*	All or nothing *Magnification*	Pain increases are scary. I've been through this before. I have tools I can apply to get through this. This is what I'll do. . .

Step 1. Identify the Upsetting Event – be as specific as possible. "Life stinks" is hard to work on, but "I had a conflict with my wife this morning" or "I was at the gym and feeling discouraged" are more tangible.
Step 2. Record your negative emotional response or physical reaction.
Step 3. Go back to identify the automatic thoughts associated with the bad feelings. If you are having trouble with this, draw an unhappy stick figure with a bubble above its head. Make up some negative thoughts that are upsetting the stick figure and write them in the bubble.
Then write some changed thoughts.
Step 4. Go back and look at your automatic thoughts and reevaluate your belief in them, then look at your emotional response and rate its strength. Is there relief? If not, ask yourself:

1. Have I correctly identified the upsetting event?
2. Do I want to change my negative feelings about this situation (list advantages and disadvantages of changing your feelings)
3. Have I identified my Automatic Thoughts properly?
4. Are my changed thoughts convincing, valid statements that put the lie to my automatic thoughts?



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Gratitude

- An affirming of goodness or "good things" in one's life
- The recognition that that the sources of this goodness lie at least partially outside the self.

- Gratitude Journaling vs. Journals re: hassles, neutral events
  - exercised more regularly
  - reported fewer physical symptoms
  - felt better about their lives as a whole
  - were more optimistic about the upcoming week

Gratitude as a Psychotherapeutic Intervention J. Clin. Psychol: In Session 69:846– 855, 2013

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Forgiveness – of others and self

- Changing the Channel
- Rewriting the victim story

- Fred Luskin, Forgive for Good

- A forgiveness intervention for women with fibromyalgia who were abused in childhood: A pilot study. Spirituality in Clinical Practice, Vol 1(3), Sep 2014, 203-217.

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Why Do Pain Groups?

- Help patients get better
  - Provide services not otherwise covered
  - Break isolation
    - Facilitate development of support system (other than you!)
  - Decrease provider burnout
  - Make care for challenging patients cost-effective

Help Patients Get Better

- A multitude of studies show improved outcomes for chronic pain patients treated with cognitive behavioral therapy and with multidisciplinary interventions
  - The combined psychological treatment and physiotherapy condition displayed significantly greater improvement . . . These differences were maintained at 6 month follow-up. Pain. 1992 Mar;48(3):339-47.
  - Physical symptoms: CBT-treated pts improved more than control subjects in 71% of the studies and showed possibly greater improvement (i.e., a trend) in another 11% of the studies. Psychother Psychosom 2000;69:205–215

- Mindfulness-based stress reduction for failed back surgery syndrome
  - Statistically significant and clinically significant:
    - Increase in pain acceptance and quality of life
    - Decrease in functional limitation
    - Decrease in pain level
    - Decrease in frequency, potency of analgesics
    - Increase in sleep quality
      - J Am Osteopath Assoc. 2010 Nov;110(11):646-52

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shared joy
is a double
JOY
shared sorrow
is half a
sorrow
Swedish Proverb

"Being with other people who understand what it is to live with constant pain that has no end in sight and sharing our experiences in a safe environment has ended my feeling of isolation"

The Buddy System – homework includes checking in with buddy daily about relaxation exercises

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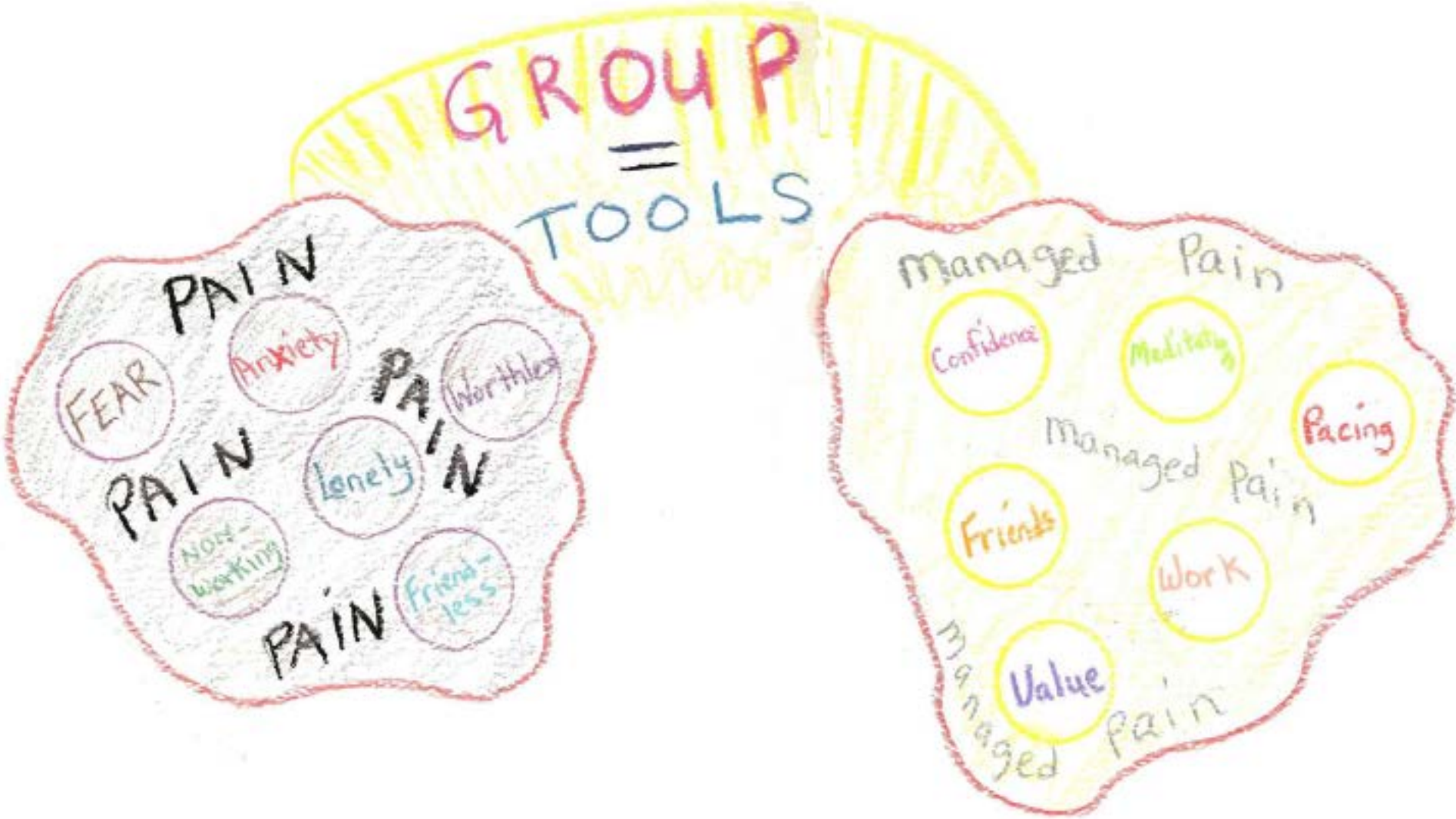
- After a behavioral medicine intervention:
  - 36% reduction in clinic visits in the first year postintervention
  - Projected to an estimated net savings of $12,000 for the first year of the study posttreatment and $23,000 for the second year

Caudill et al Pain 45(1991) 334-5


GROUP
=
TOOLS
PAIN
FEAR
Anxiety
PAIN
Worthless
PAIN
Lonely
PAIN
Non-working
Friend-less
PAIN
Managed Pain
Confidence
Meditation
Pacing
Managed Pain
Friends
Work
Value
Managed pain

Course Format

- Introductory Session: didactic (We will drone on and on)
- Future groups more interactive/experiential:
  - Relaxation Response Exercise
  - Check-in
  - Medical Presentation
  - CBT exercise
  - Med check
  - Closure/Relaxation Response

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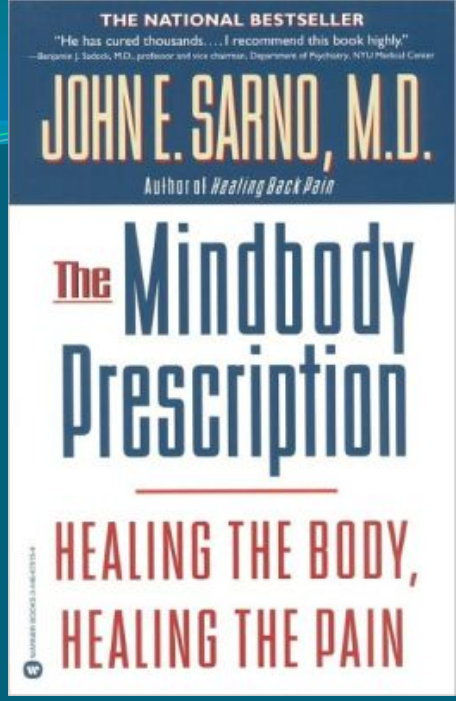

Sarno

- 1982 177 random patients surveyed
  - 76% stated that they were leading normal and effectively pain-free lives
- 1987 109 random patients with herniated disc on CT
  - 88% stated that they were free of pain one to three years after TMS treatment
- Schechter
  - Cohort of 51 *chronic* back pain patients, average pain duration 9 years
    - 54% reduction in the average pain intensity scores

Alternative Therapies in Health and Medicine **13** (5): 26–35

MRI and Back Pain

Magnetic Resonance Imaging of the Lumbar Spine in People without Back Pain

- MRI examinations on 98 **asymptomatic** people
  - Only 36% had a normal MRI
  - 52% - bulge at at least one level
  - 27% - protrusion
  - 1% - extrusion.
  - 38% - abnormality of more than one intervertebral disk.
  - "Given the high prevalence of these findings and of back pain, the discovery by MRI of bulges or protrusions in people with low back pain may frequently be coincidental"
  - *Maureen C. Jensen, et al.* NEJM **Volume 331:69-73, 1994**

Predictors of Low Back Pain in People with Asymptomatic Abnormal MRI's

Forty-six asymptomatic individuals who had a high rate of disc herniations (73%) were observed for an average of 5 years

Low back pain was predicted by ($P < 0.001$):

listlessness

job satisfaction

working in shifts

NOT by abnormal discs

- Boos et al. Spine. 25(12):1484-1492, June 15, 2000.

Why Would the Brain Cause Pain?

- Freud's theory: punishment for unacceptable feelings (usually sexual)
- Sarno's theory: Defense
  - Parts of your mind may think they need to protect you from dangerous or threatening feelings

TMS

Conscious

Repression

Unconscious - unaware

Rage

Sources of Rage

- Childhood/Historical Trauma
- Personality Traits – Self-imposed pressures
- Current Life Pressures

Who Gets Chronic Pain, and When?

- Historical Features
  - Trauma in early life
  - Trauma/victimization at time of onset
- Personality traits
  - Perfectionism
  - “Good-ism”
  - Driven people
- Current stresses
  - Not uncommonly, onset is related to a stressful event/relationship/job/etc.

The Prescription

1. Understand the true cause of the pain is this process, not the structural abnormalities
2. Reflect on this every day. Read a portion of one of Sarno's books, read my handout, etc. Spend 30-60 minutes on this daily.
3. Think psychological, not physical
4. Talk to your brain.

Write!

2. Remember the purpose of the pain is to distract you from feelings that are considered dangerous, like rage, hurt, sadness, sorrow, guilt, or fear.

   These are feelings we are not aware of.

- Make a list of all the important factors in your life that might be contributing to your pain. Write an essay about each one.

  Also, divorce, loss of a parent, etc.

Other Work on Journal Writing

- When individuals are asked to write or talk about personally upsetting experiences, significant improvements in physical health are found
- Those who do best:
  - Use a higher proportion of negative emotion words than positive emotion words
  - Increase use of insight,causal, and associated cognitive words over several days of writing

  - Behav Res Ther. 1993 Jul;31(6):539-48. Putting stress into words: health, linguistic, and therapeutic implications. Pennebaker JW.

Take-homes

- Look for tacks
- There is more to treat pain than pain pills
- People are different
- Be open to paradoxes
  - Pain medication can increase or decrease pain
  - Yogurt can heal one person's gut and cause another person migraines
  - A gratitude journal and an anger journal can each be helpful
  - Mindfulness and Imagery (being present or leaving the body) can each be helpful