

# Healing Groups for People Living with Chronic Pain



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



# A Proven Approach

- Pain. 1992 Mar;48(3):339-47. Comparison of cognitive-behavioral group treatment and an alternative non-psychological treatment for **chronic low back pain**. Nicholas MK, Wilson PH, Goyen J. The combined psychological treatment and physiotherapy condition displayed significantly greater improvement than the attention-control and physiotherapy condition at post-treatment on measures of other-rated functional impairment, use of active coping strategies, self-efficacy beliefs, and medication use. These differences were maintained at 6 month follow-up.
- **Cognitive-Behavioral Therapy for Somatization and Symptom Syndromes: A Critical Review of Controlled Clinical Trials**  
K Kroenke, R Swindle, *Psychotherapy and Psychosomatics* 2000;69:205-215 (DOI: 10.1159/000012395)
- Pain. 1995 Nov;63(2):189-98. Relaxation and imagery and cognitive-behavioral training reduce pain during **cancer** treatment: a controlled clinical trial. Syrjala KL, Donaldson GW, Davis MW, Kippes ME, Carr JE.
- Arthritis Care Res. 1993 Dec;6(4):213-22. Cognitive-behavioral treatment of **rheumatoid arthritis** pain: maintaining treatment gains. Keefe FJ, Van Horn Y.
- Altern Ther Health Med. 1998 Mar;4(2):67-70. A pilot study of cognitive behavioral therapy in **fibromyalgia**. Singh BB, Berman BM, Hadhazy VA, Creamer P.
- J Pediatr. 2002 Jul;141(1):135-40. Physical therapy and cognitive-behavioral treatment for **complex regional pain syndromes**. Lee BH, Scharff L, Sethna NF, McCarthy CF, Scott-Sutherland J, Shea AM, Sullivan P, Meier P, Zurakowski D, Masek BJ, Berde CB.  
and many others. . . .



# Session 1 Outline

- Staff Introductions
- Review course format, group expectations
- Understanding Pain – The Physiology of Pain
- Integrative Pain Management
  - Diagnosis
  - Treatment of underlying causes
  - Medical treatment of pain
  - Mind/body/spirit medicine for pain management
  - Introduce Diaphragmatic breathing



# Staff Introductions





# 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



# Course Format

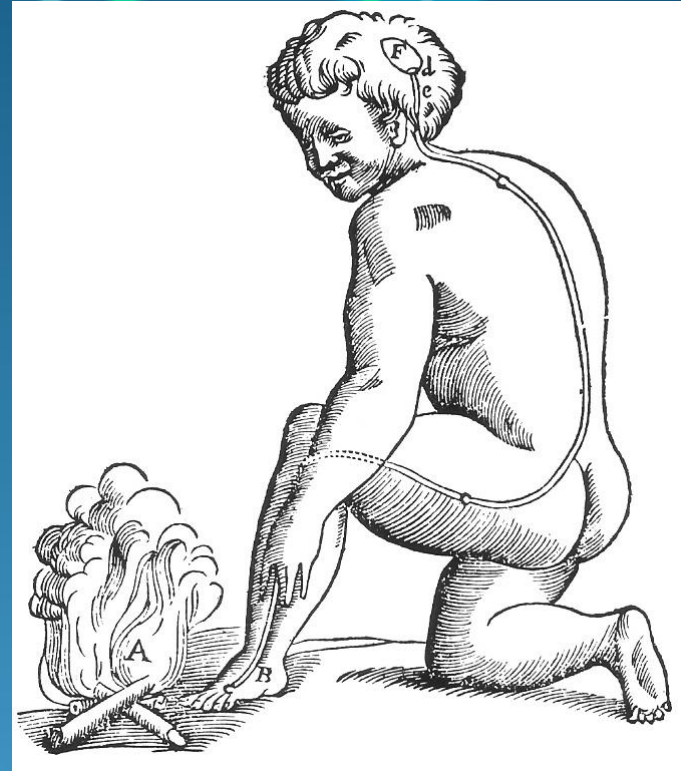
- Homework – pain diaries, other
- “Cafeteria Plan” –
  - Please try a “no-thank-you-helping” of everything
- Comfort issues
  - Feel free to stand or move when you need to
- Confidentiality issues
  - We will not discuss particulars of your medication use or your medical problems with the group unless you indicate willingness to do so, but we encourage participants to do this



# Understanding Pain



# Acute Pain



Adaptive:

Indicates tissue injury  
Makes you get to safety





# Chronic Pain

Maladaptive:

Signal no longer related to  
acute trauma/injury

Ongoing message is harmful,  
not protective



Thirty-four million Americans suffer from chronic pain



# 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.





# Imagine. . .

- The brain has messages coming in and has caller ID.
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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

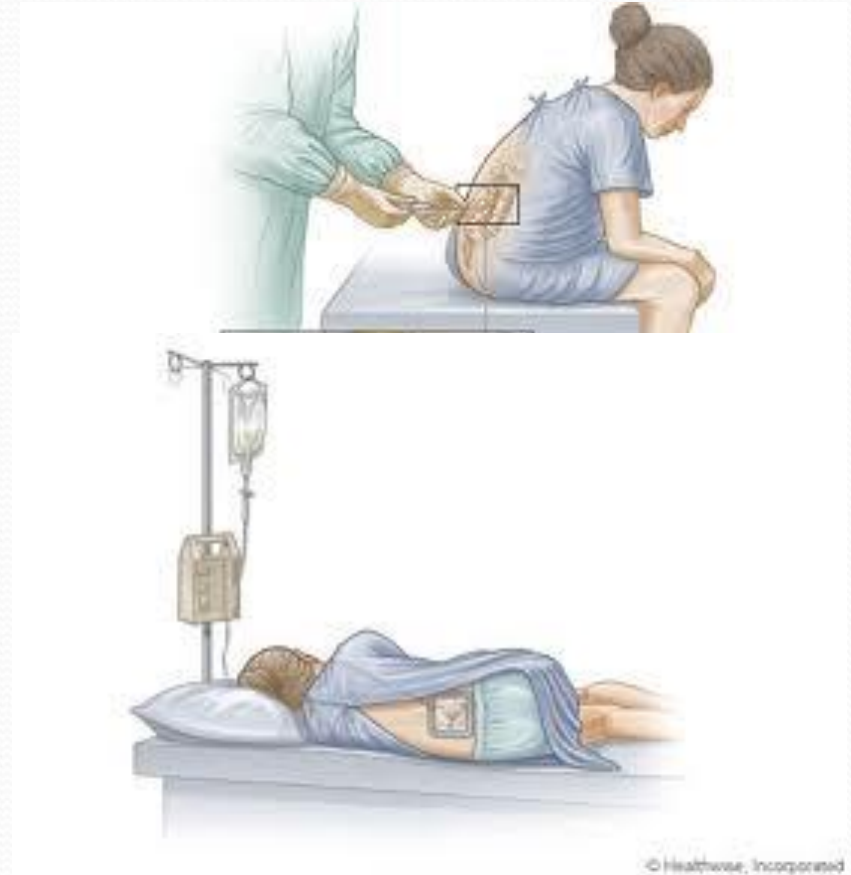
- Sensory Nerves
  - A-delta Fibers –well-localized and rapid message, respond to tissue pressure. Fatigue with repeated stimulation.
  - C Fibers –respond to noxious thermal, mechanical, or chemical stimuli. Slow message, poorly localized. Sensations are perceived as dull, aching, burning, and have 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.





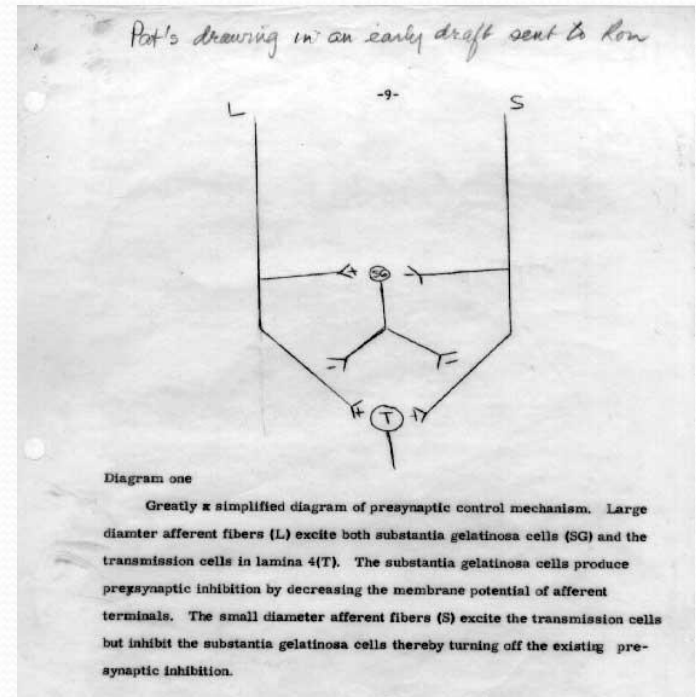
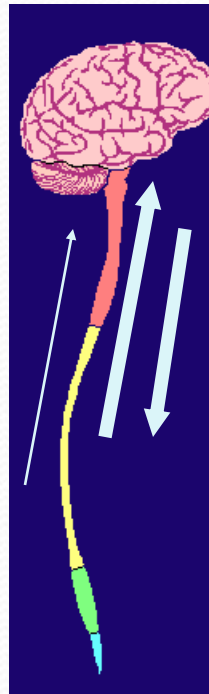
# Pain Perception

- Spinal Cord



# Pain Perception

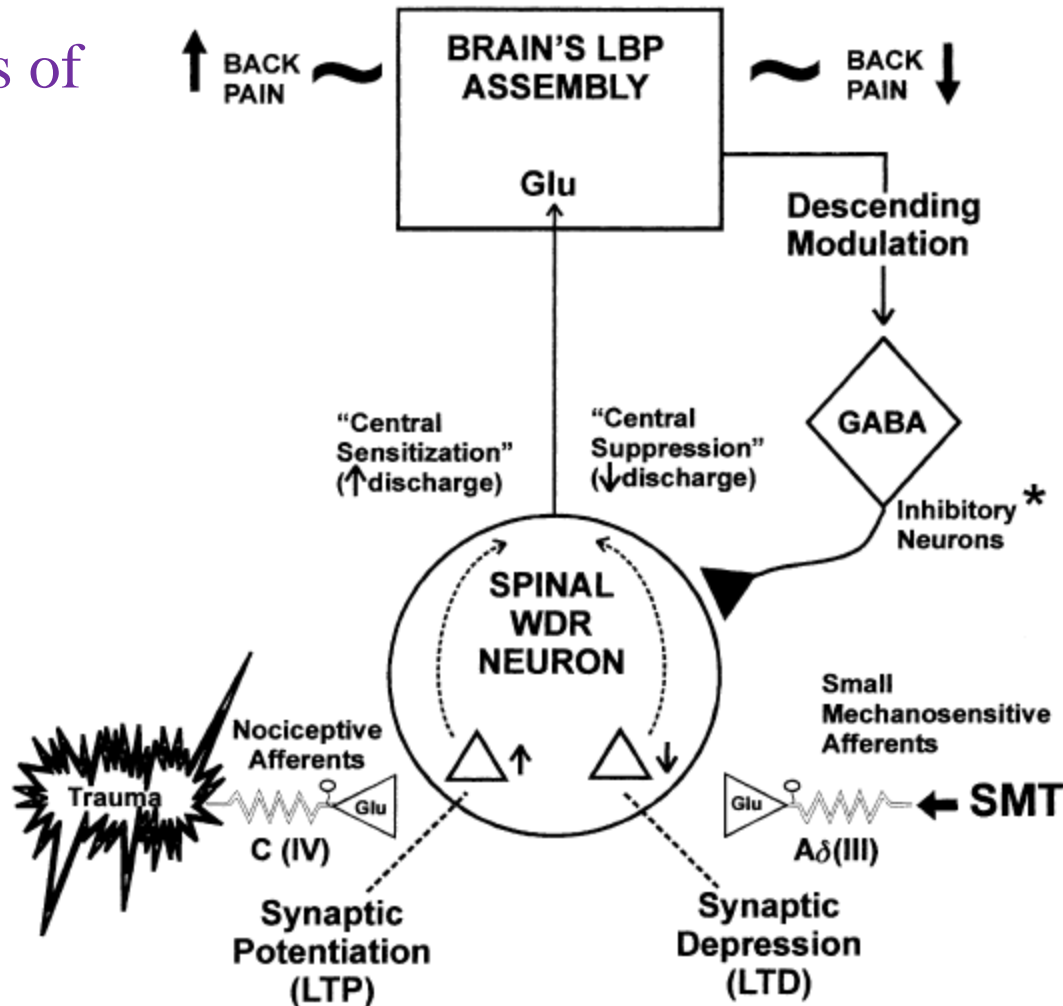
- Spinal Cord
  - Modulation:
    - multiple signals coming in from periphery
    - Multiple messages coming down from the brain
      - Inhibition
        - Serotonin
        - Norepinephrine
        - Endorphin
      - Amplification





# Pain Transmission Mechanism/Theory

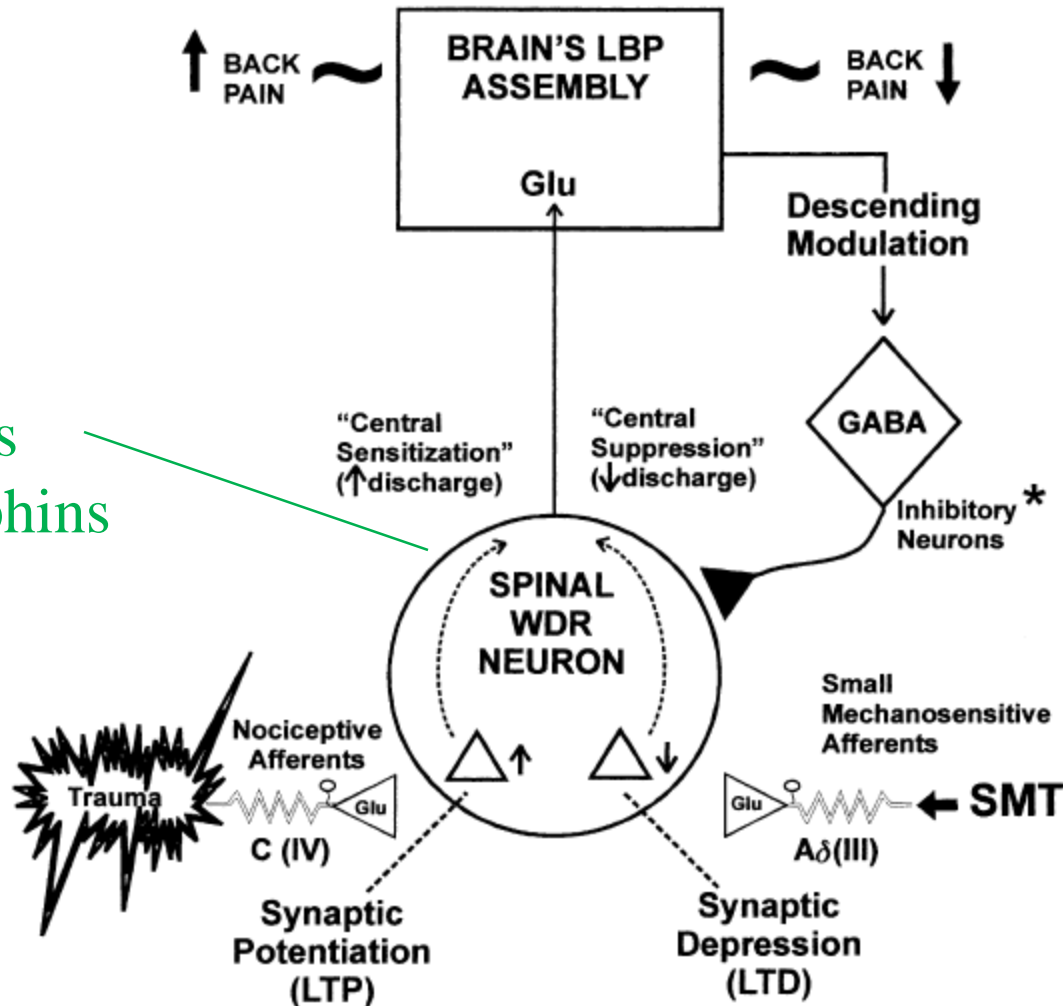
Many Points of Intervention



Don't worry -  
no test on this

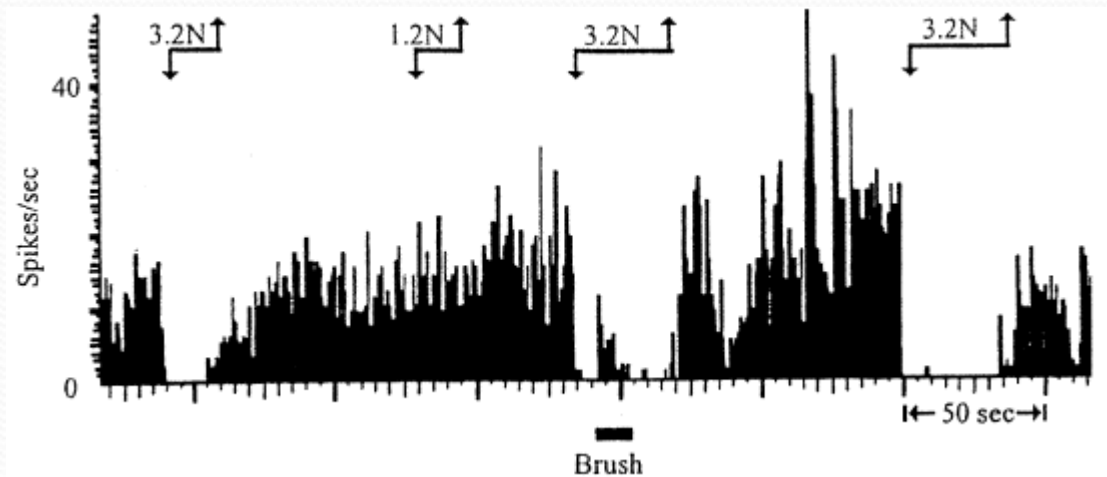
# Gate Control Mechanism/Theory

Opioids  
Endorphins



# Gate Control Implications:

## Mechanical Stimuli Can Decrease Pain Sensation



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

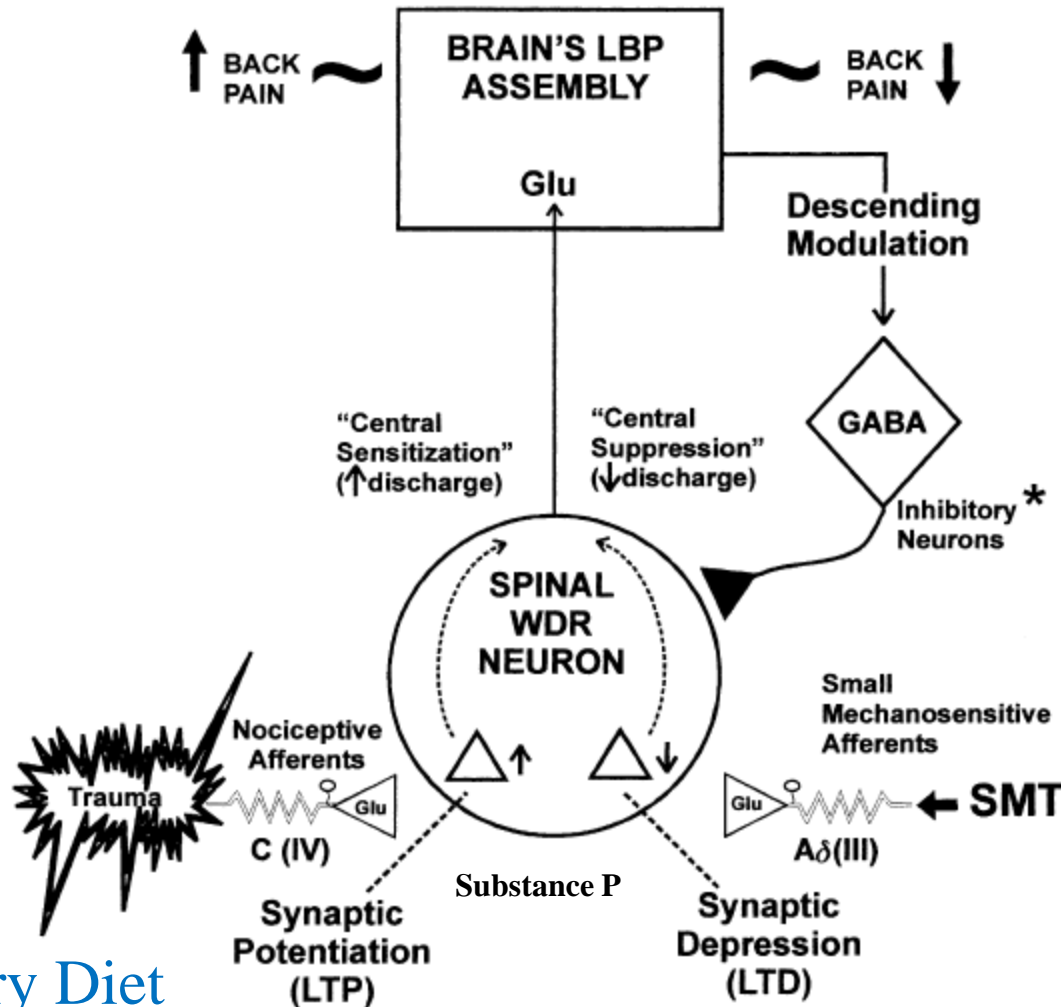
Boal RW, Gillette RG. Central neuronal plasticity, low back pain and spinal manipulative therapy.

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





# Pain Transmission Mechanism/Theory



Infection  
Inflammatory Diet

Capsaicin

Massage  
Chiropractic





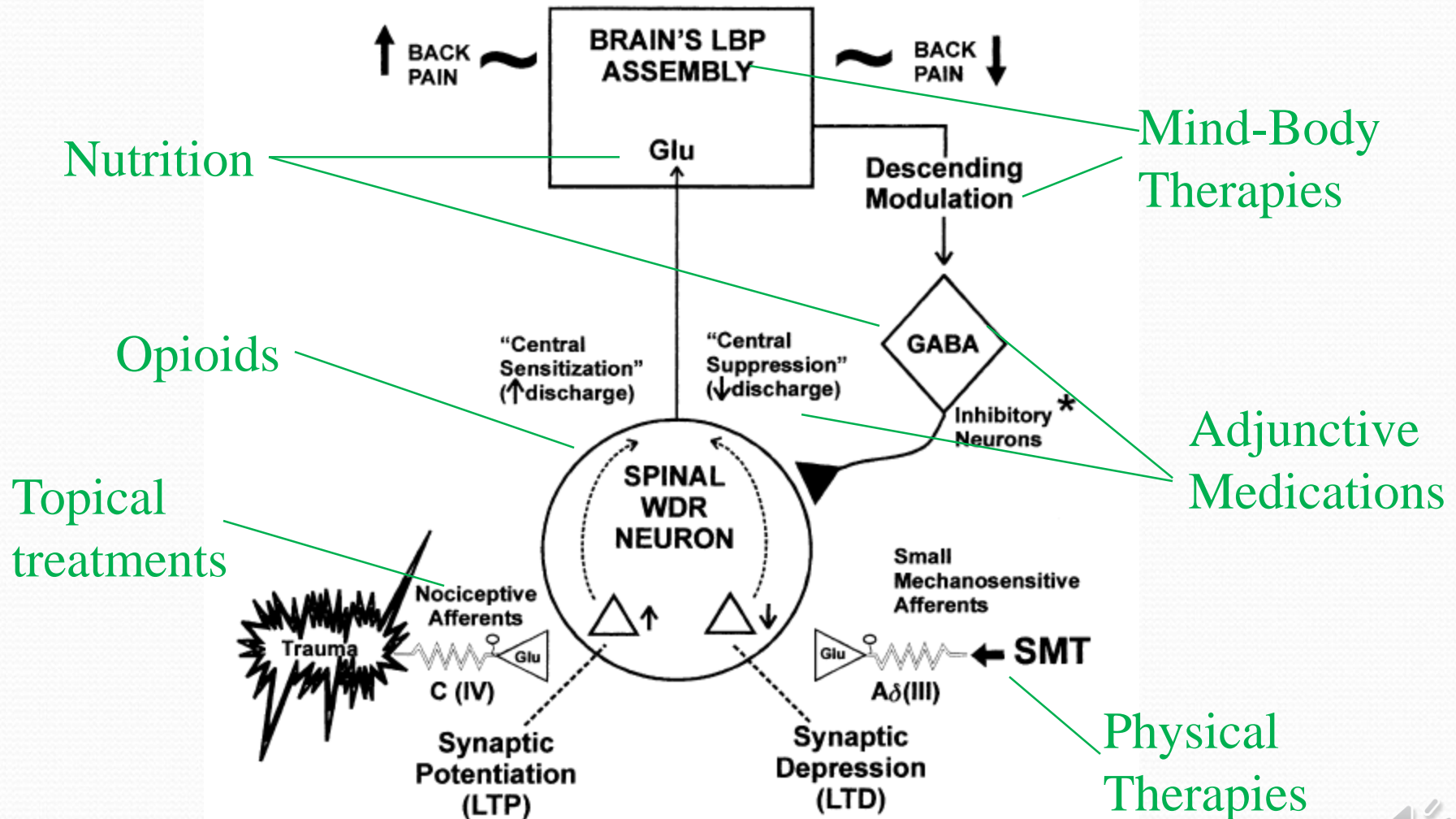
# Pain perception



- 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



# Integrative Pain Management

Pain may be mandatory,  
but suffering is optional





# The 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.



# Corollaries to the Rule of Tacks

- Accurate diagnosis is important
  - Do not rush to control symptoms and ignore the message about an underlying health problem
- Remove tacks where possible, i.e. treat underlying causes
  - Surgical treatment
  - Physical therapies
  - Specific medical treatment for neuropathy, systemic inflammation related to gut disturbances, etc.
  - Sleep, hormonal influences on tissue healing
  - Counseling - History of trauma





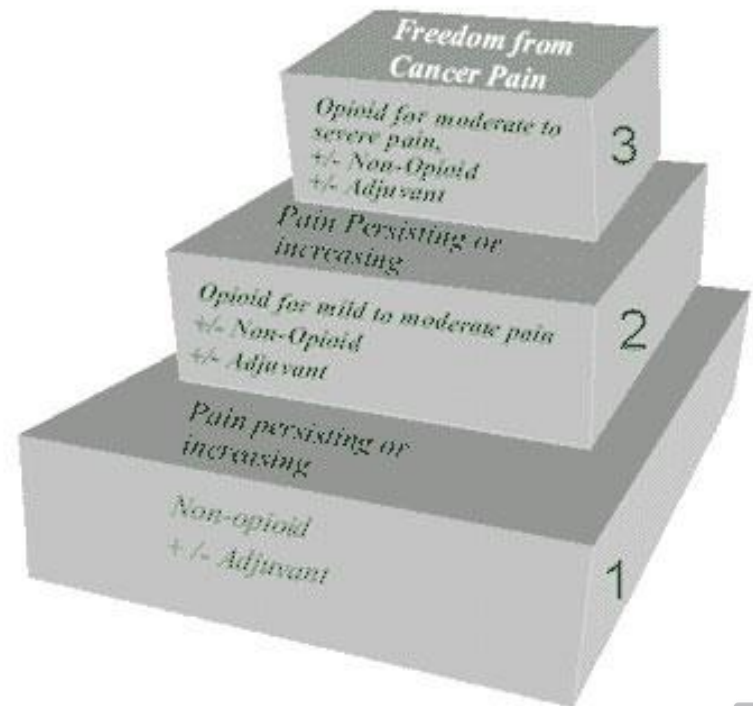
# Symptom Management: Medical Treatment of Pain

## WHO's pain ladder

- developed for cancer pain, now applied for nonmalignant chronic pain as well

More on this next time

## WHO's Pain Relief Ladder





# Separating Pain and Suffering



# Meaning of Pain

Activities Decreased or Stopped	Physical Symptoms	Feelings and Thoughts
	This is a group activity – advance to next slide	
	To see an example	



# Meaning of Pain

Activities Decreased or Stopped	Physical Symptoms	Feelings and Thoughts
Plan activities	PAIN	Vulnerable
Keep a job	nausea	Weak
Drive a distance, or often	anxiety	Abnormal/"broken"
Socialize	fatigue	Labeled, worthless
Play sports, exercise	Cognitive problems/memory	Fake/phony/not authentic
Sleep	deconditioning	Am I crazy
Friendships		How do people see me
Family connection		I am not who I used to be
Laundry, dishes, lawn		
Shower		





# Pain Diary Instructions

- Physical sensation

Aching

Sharp

Burning

Penetrating

Throbbing

Tender

Shooting

Nagging

Dull

Numb

Stabbing

Gnawing

VS.

- Emotional Response

Frustration

Anger

Anxiety

Sadness

Helplessness

Fear

Hopelessness



# Numerical Ratings

<u>Rating</u>	<u>Physical Sensation/activities</u>	<u>Emotional Response</u>
0	No painful physical sensation	No negative emotional response
1-4	Mild intensity of physical pain, Minimal effect on activities	Minimal/low level of negative emotions
5-6	Moderately intense physical Sensation, increased body tension, Moderate restriction of activities	Moderate negative emotions
7-8	Significant pain sensation, difficulty Moving, decreased activities	Significant negative emotions
10	Severe pain sensation associated inability to move	Severe depression, anxiety, with or despair.



# Making Use of the Mind-Body Connection in Chronic Pain Management

After the break. . . .





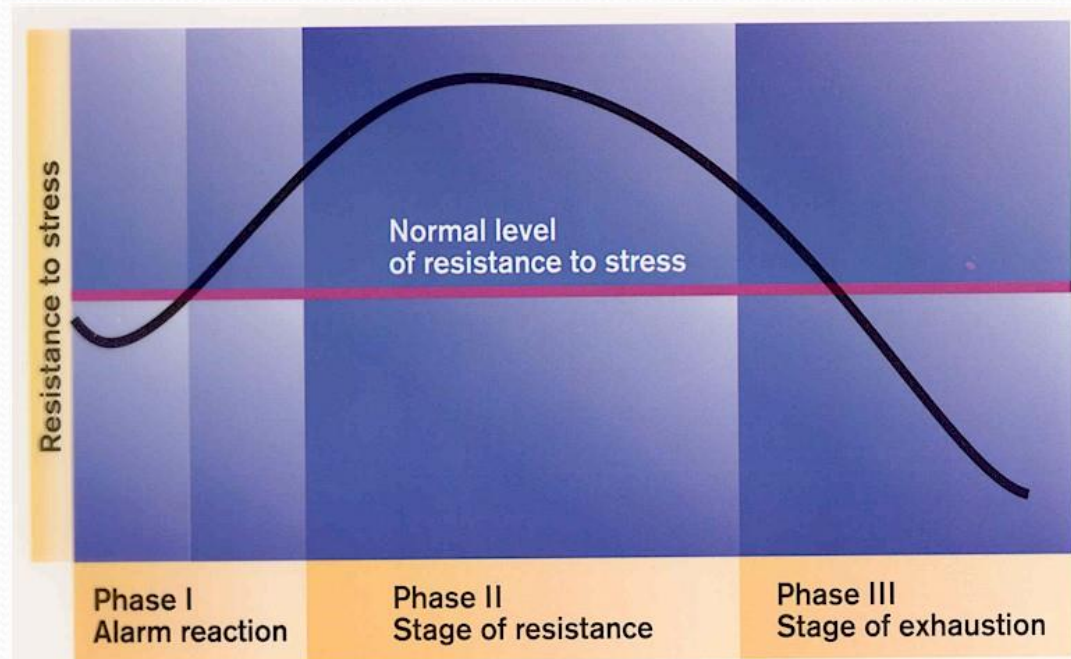
# Stress

A Definition



# General Adaptation Syndrome (GAS)

- The Response to Stress, in 3 Phases:
  - Alarm Reaction
  - Stage of Resistance
  - Stage of Exhaustion



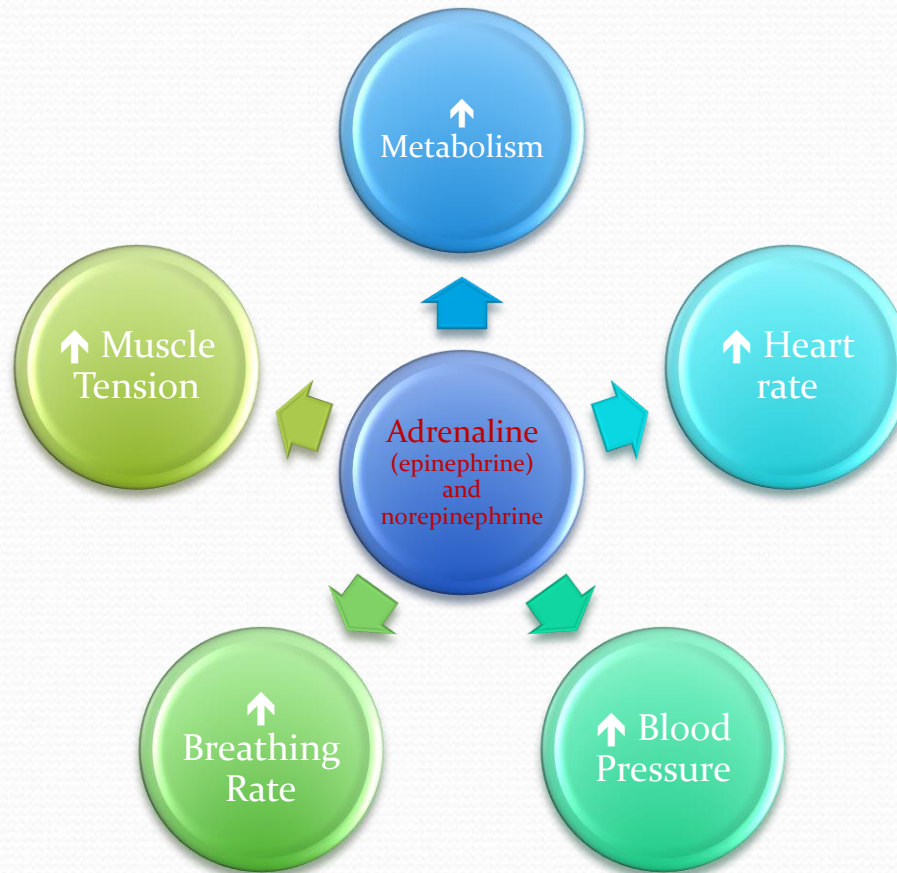
# Alarm Reaction: Fight, Flight, or Freeze

- Evolutionary Role: escape from predator or acute physical danger



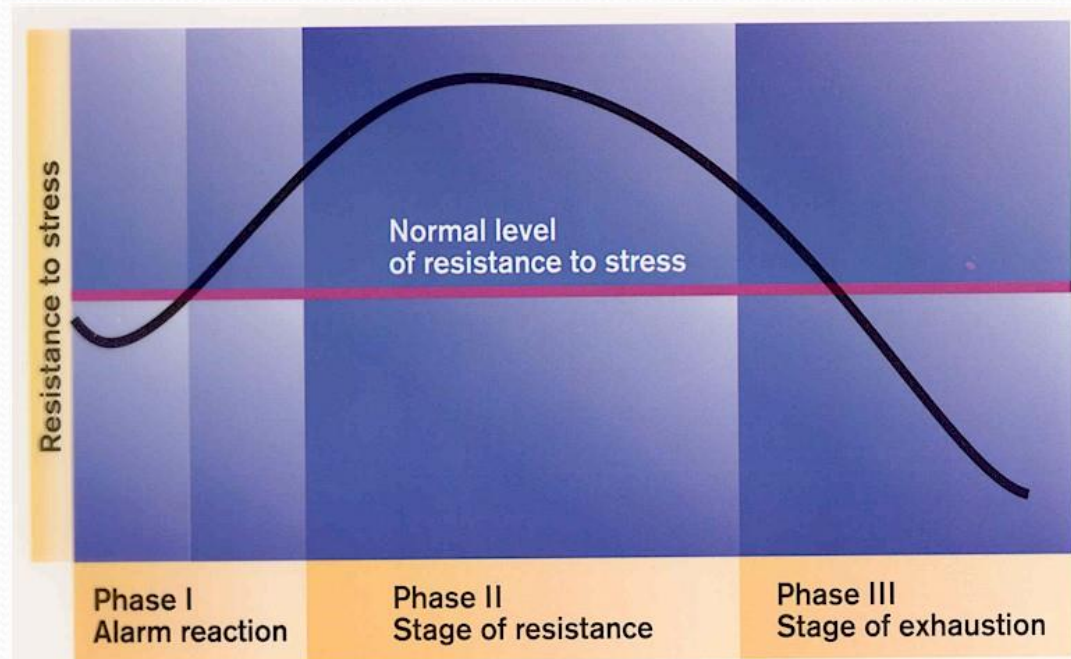


# Alarm Reaction



# General Adaptation Syndrome (GAS)

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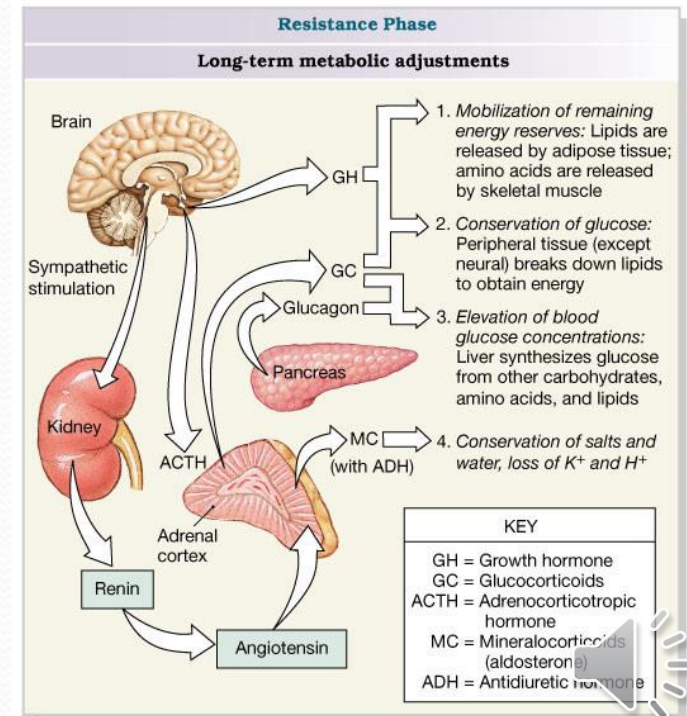




# Stage of Resistance

– to survive famine?

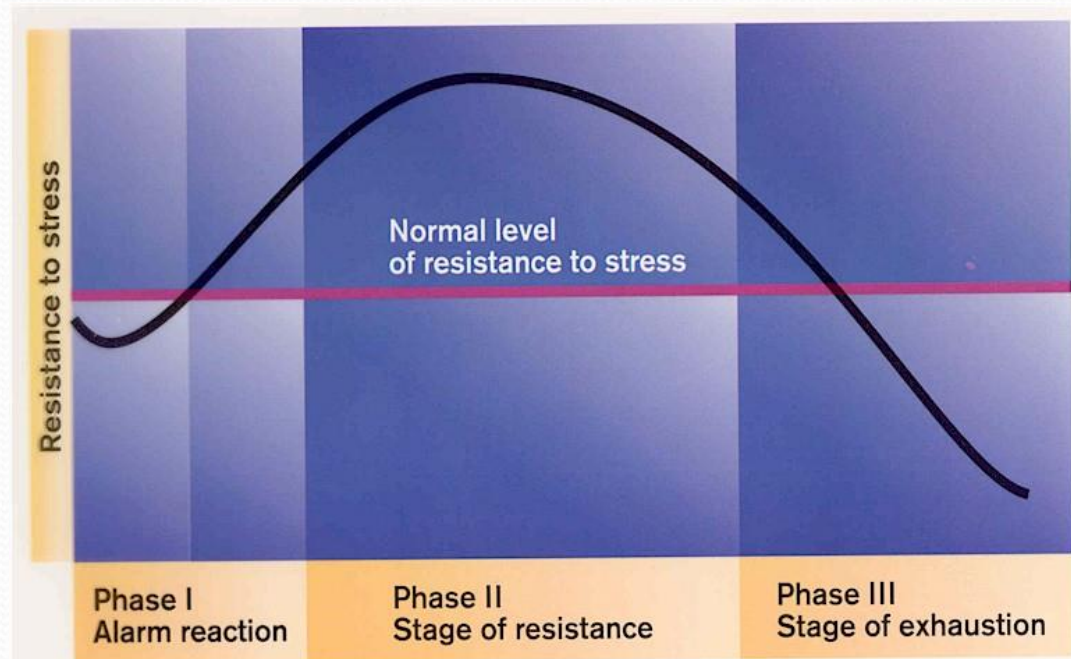
- **HPA (hypothalamo-pituitary-adrenal) axis:**  
Cortisol increases when stress becomes chronic
  - Store energy centrally, where it is accessible
  - Increase cardiovascular tone
  - Inhibit anabolic processes such as
    - Growth
    - Repair
    - Reproduction
    - Immunity





# General Adaptation Syndrome (GAS)

- The Response to Stress, in 3 Phases:
  - Alarm Reaction
  - Stage of Resistance
  - Stage of Exhaustion



# Adrenal Exhaustion

- Coping responses cannot sustain their response if stressor is sufficiently severe and prolonged
- “Diseases of adaptation” may arise
  - Hypertension
  - Ulcers
  - Heart disease
- Symptoms that disappeared during the stage of resistance may reappear
- Death possible





# Physical and Psychological Side Effects of Stress

The body cannot distinguish physical danger from psychological threat



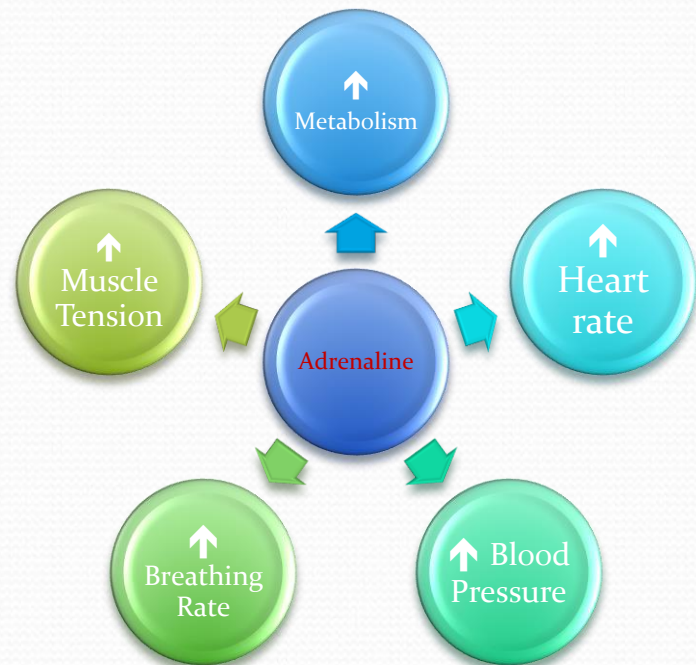
For most modern stressors, the value of increased heart rate, increased muscle tone, etc. is less, and those changes are not utilized for physical exertion, leaving the organism aroused without a release



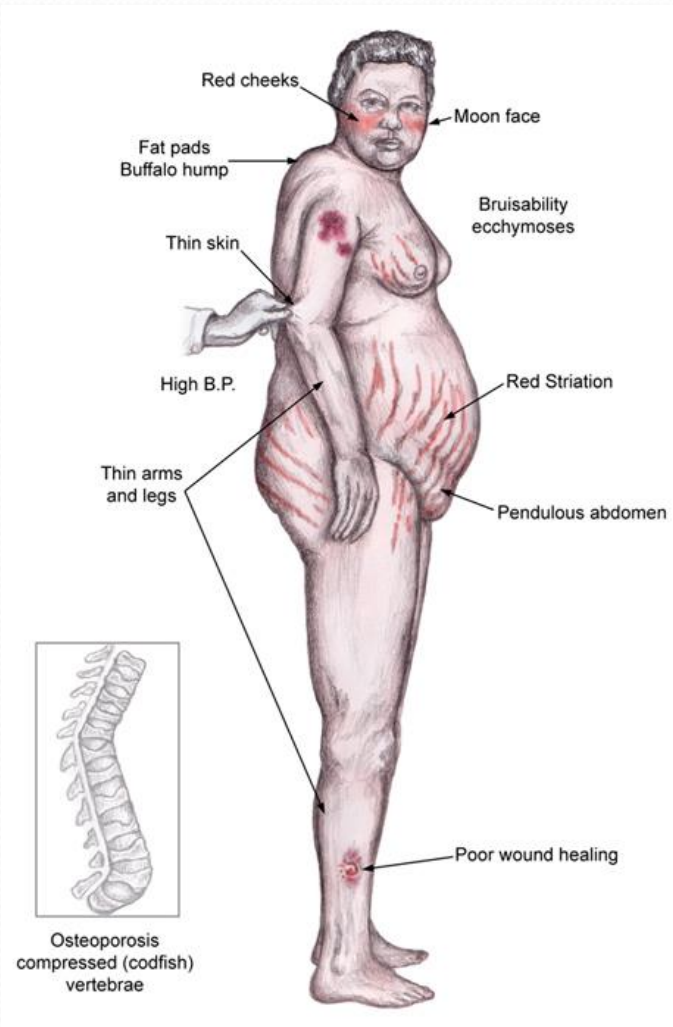


# Acute Stress Hormones: Maladaptive Symptoms

- Cold hands and feet
- Palpitations, heart rate speeds up
- Diarrhea or constipation
- Trembling
- Dry mouth
- Decreased sleep
- Pupils dilate



# Chronic Stress: Maladaptive Changes



- Worsened blood sugar control/increased insulin resistance
- Visceral fat deposition (apple-shaped weight gain)
- Increased inflammation
- Decreased immunity





# Relationship of Illness to Chronic Stress

- Susceptibility to the common cold correlates with psychological stress

**Psychological stress and susceptibility to the common cold** *S Cohen, DA Tyrrell, and AP Smith* *NEJM* Volume 325:606-612 August 29, 1991. Number 9

Several potential stress-illness mediators, including smoking, alcohol consumption, exercise, diet, quality of sleep, white-cell counts, and total immunoglobulin levels, did not explain the association between stress and illness. Controls for personality variables (self-esteem, personal control, and introversion-extraversion) failed to alter findings.



- Timing of heart attacks

Many studies have shown an excess of cardiovascular events on Mondays. A relative trough has been seen on Saturdays and Sundays compared with the expected number of cases. Highest incidence is within the first three hours of waking on Monday morning.

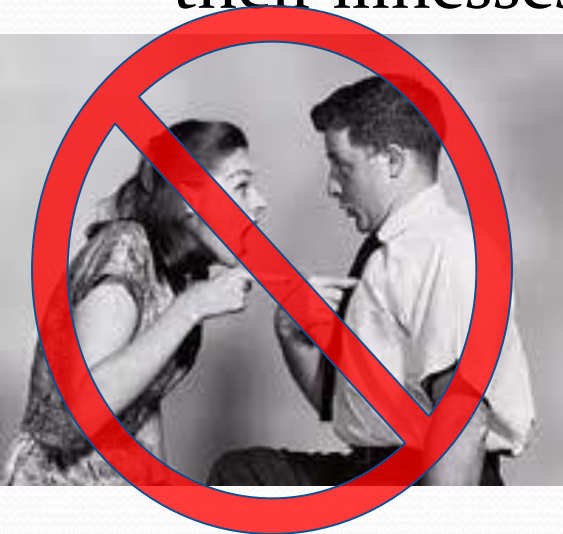
**New Insights into the Mechanisms of Temporal Variation in the Incidence of Acute Coronary Syndromes** Strike PC, Steptoe A, *Clin. Cardiol.* 26, 495-499 (2003)





# Blaming or Taking Responsibility

- Understanding the importance of stress in our medical conditions gives us the power to use stress management to decrease illness and change our experience of it
- This concept should not be used to blame people for their illnesses

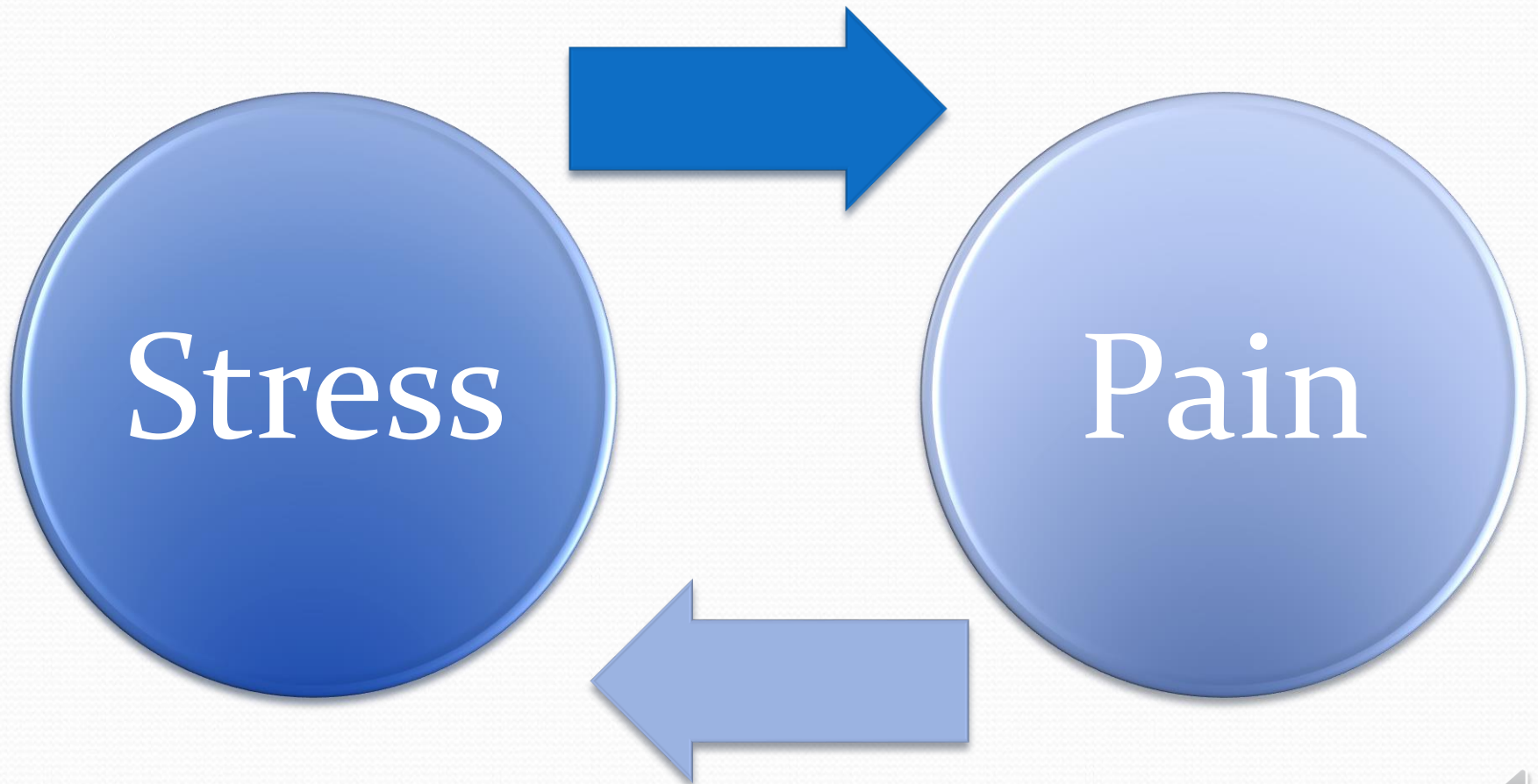


*We can do it!*



# Mind-Body and Body-Mind Interactions in Chronic Pain







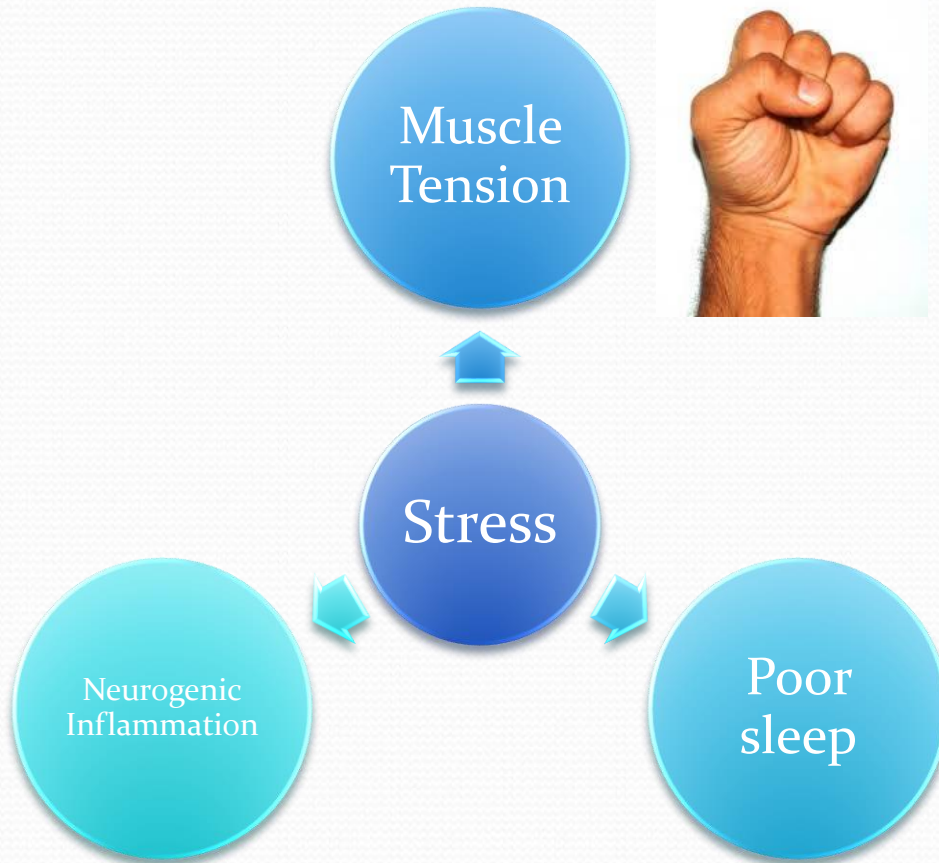


Stress

Pain



# Emotions, & Stress Causing Pain





# Vicious Cycle

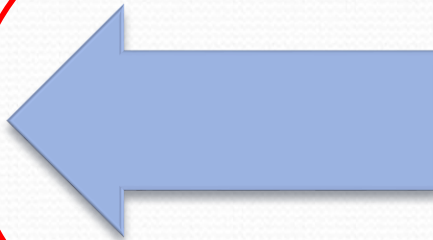






Stress

Pain



# Pain Affecting Emotions and Stress

- Body tension & pain are perceived as emotional by the brain
  - (Demo with a straw)





"Sometimes your joy is the source  
of your smile, but sometimes your smile  
can be the source of your joy."

- Thich Nhat Hanh



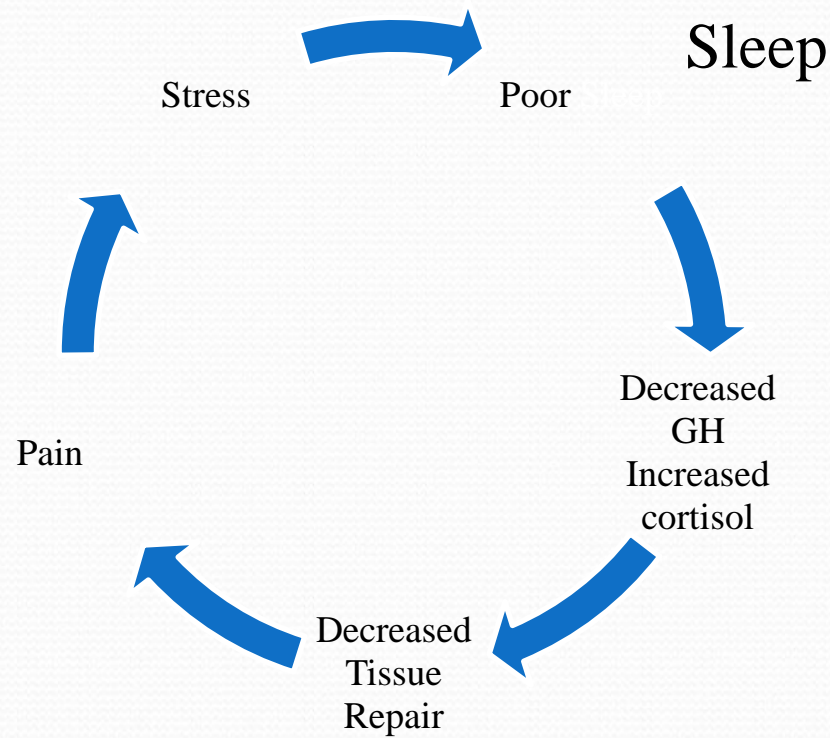


# Pain Affecting Emotions and Stress

- Body tension & pain are perceived as emotional by the brain
  - (Demo with a straw)
- Stress is, at times, perceived as negative, distressing
- Secondary effects on:
  - Sleep
  - Function
  - Disability and financial fall-out



# Vicious Cycles





# Program Overview

or, How you can learn to manage stress and maximize joy

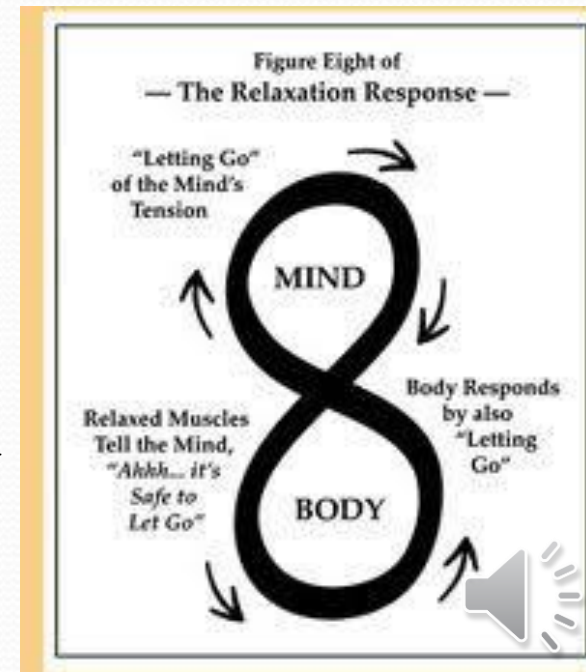
- Relaxation Response
- Cognitive restructuring, Coping, Stress Hardiness
- Nutrition
- Exercise/Body Awareness
- Spirituality





# 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



# Benefits of the Relaxation Response

- Immediate:
  - Getting through procedures and short-term stress
- Long-term:
  - Used consistently, there are carry-over effects





# Common Elements of Techniques Used to Elicit the Relaxation Response

- Focusing of attention through repetition of words or physical activity
- Passive disregard of everyday thoughts when they occur, and return to the repetition
- Results:
  - Physical relaxation
  - Mental/emotional calming



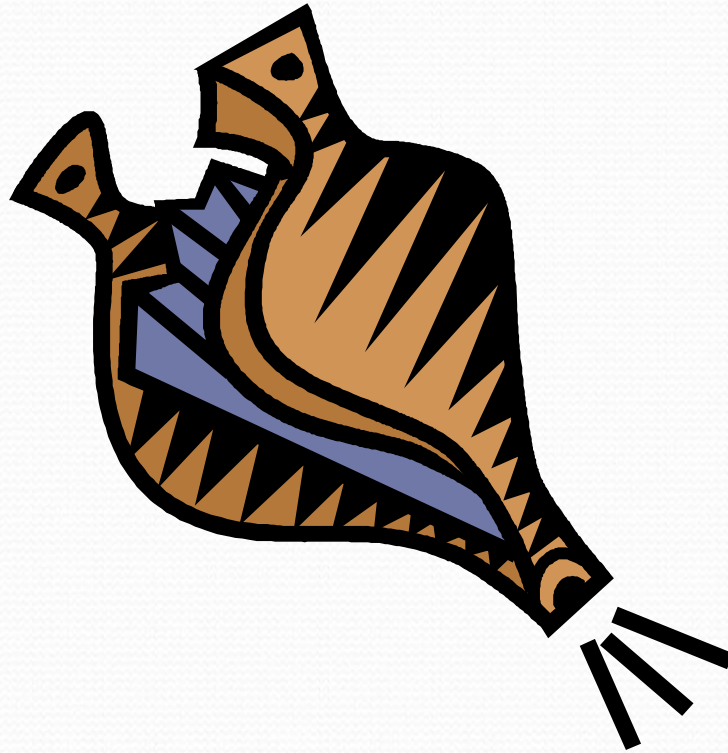


# Techniques Which Can Elicit the Relaxation Response

- Diaphragmatic Breathing
- Meditation
- Body Scan
- Mindfulness
- Repetitive exercise
- Repetitive prayer
- Progressive muscle relaxation
- Yoga Stretching
- Imagery
- (Music)



# Breathing

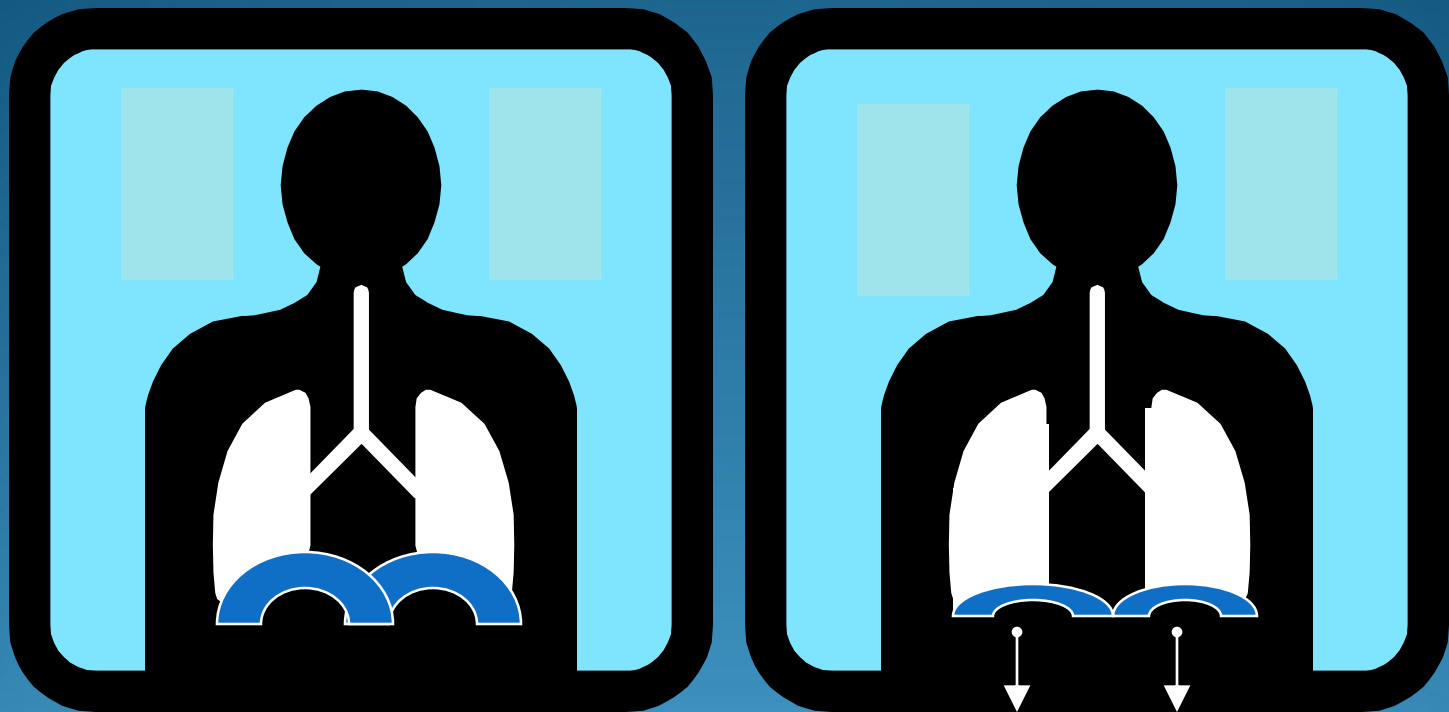






Press play here if video does not start

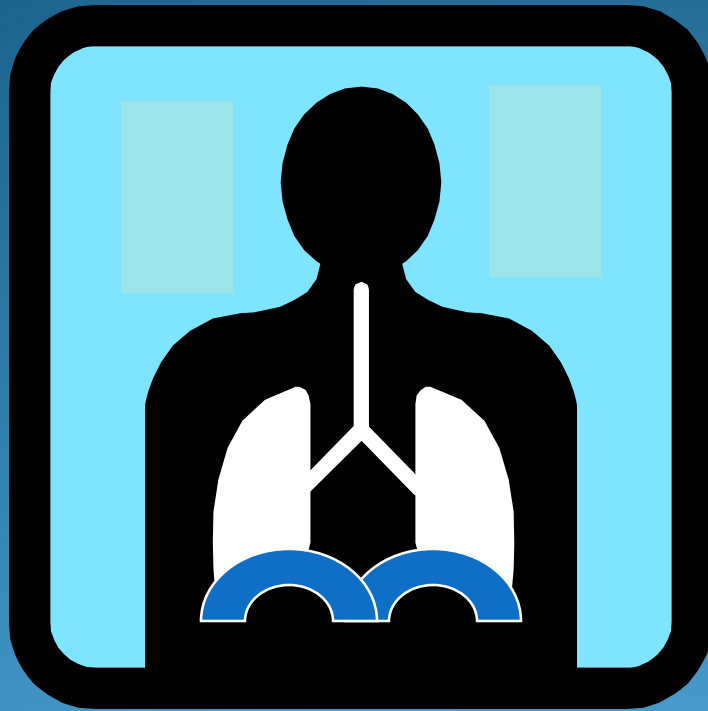




# Diaphragmatic breathing

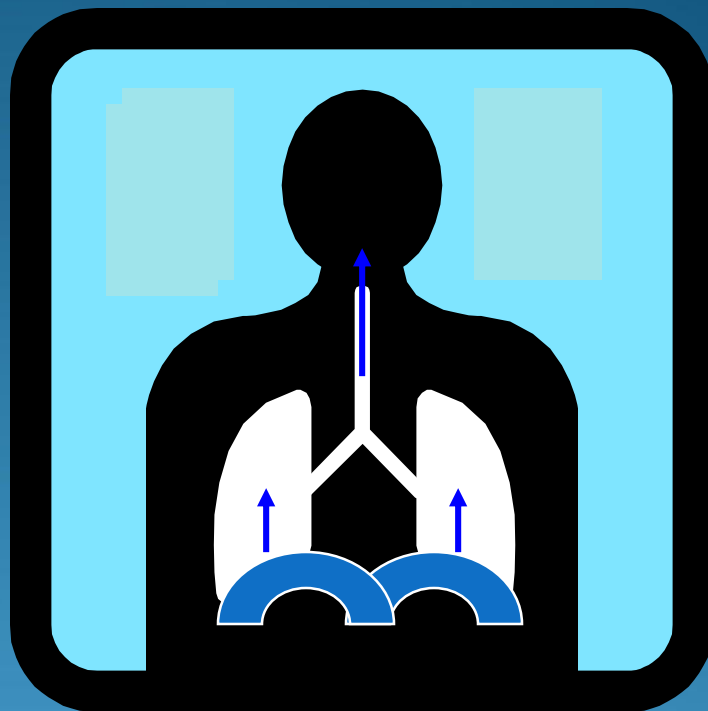
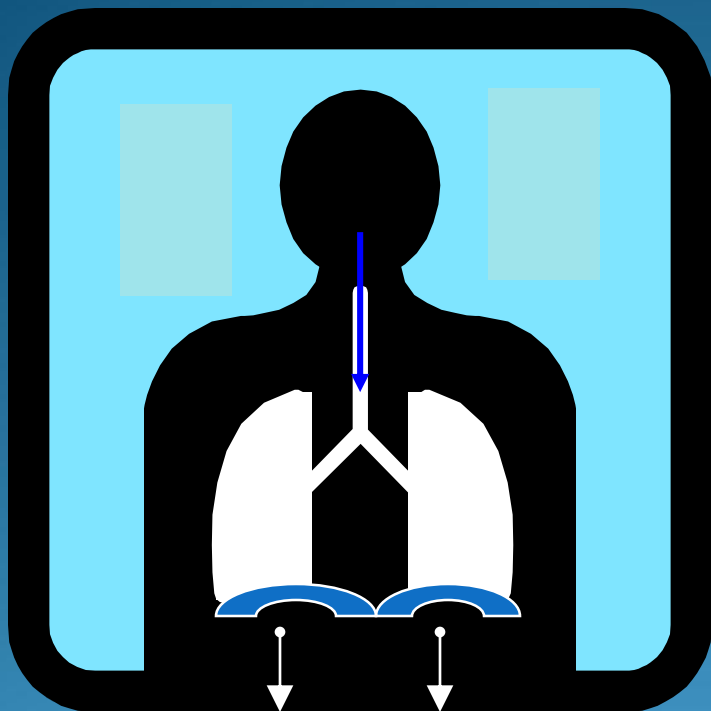
The full exercise did not record well – there  
Is another example on your relaxation CD





Chest breathing







# Common Problems

- No time
- Restlessness
- Falling Asleep
- Noises
- Thoughts
- Anxiety
- “Old Stuff” surfacing
- Insomnia
- Increase in Dreaming
- “Doing it right” – perfectionism
- Changes in bodily perceptions



# Feeling Worse

- Common when beginning to identify what you are experiencing, both physically and emotionally.
- Remember this for the future: changing your awareness changes the pain experience.



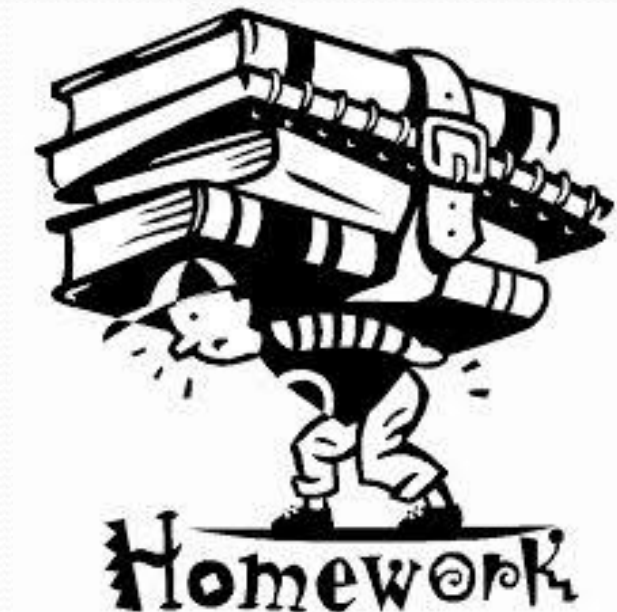
Track & Analyze  
Fibro  
Lupus  
Arthritis  
Headaches  
Back Pain  
Anxiety  
Allergies  
Well-Being  
Depression  
CRPS  
or anything else





# Homework for the First Session

- Pain diary, Feedback form
  - Set a goal, or think about it, now
- Practice Relaxation Response 20 minutes per day  
(in 1 or 2 sessions)
- Self-portrait exercise





# 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



