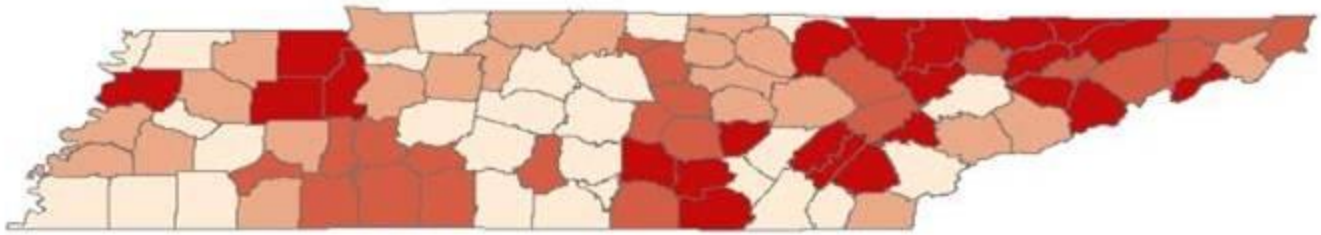
Osher Center for Integrative Medicine

Caring for the whole person with *compassion*

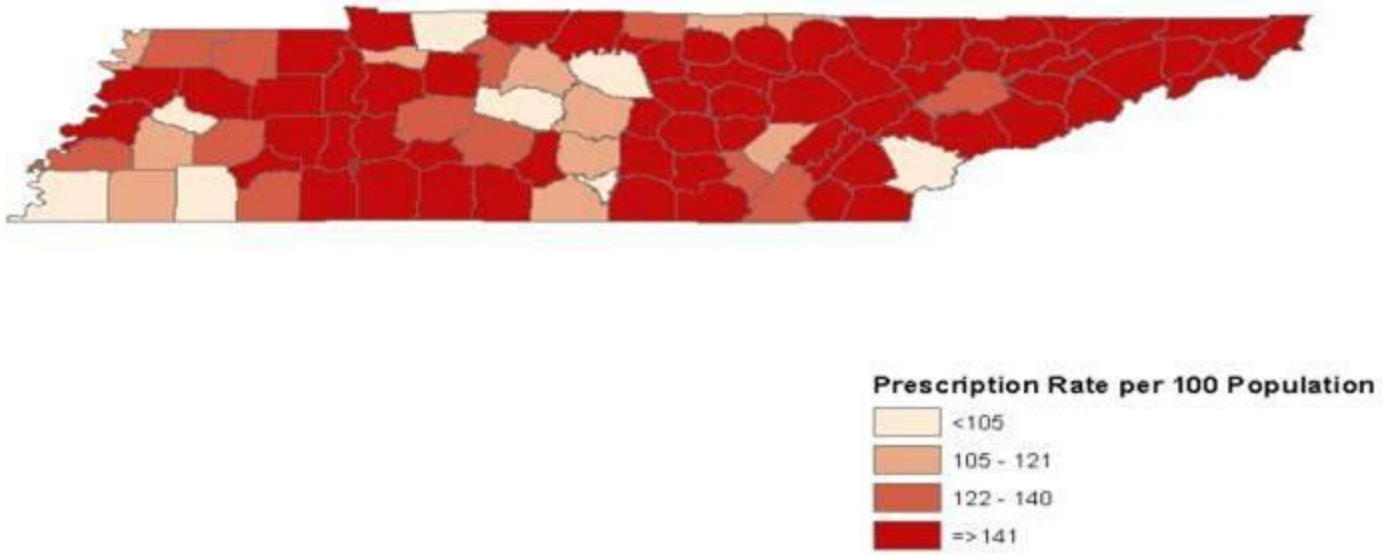
Advances in Chronic Pain Management

Roy Elam, M.D.
Associate Professor of Medicine
Medical Director, Osher Center for Integrative Medicine

Opioid Prescription Rates By County – TN, 2007

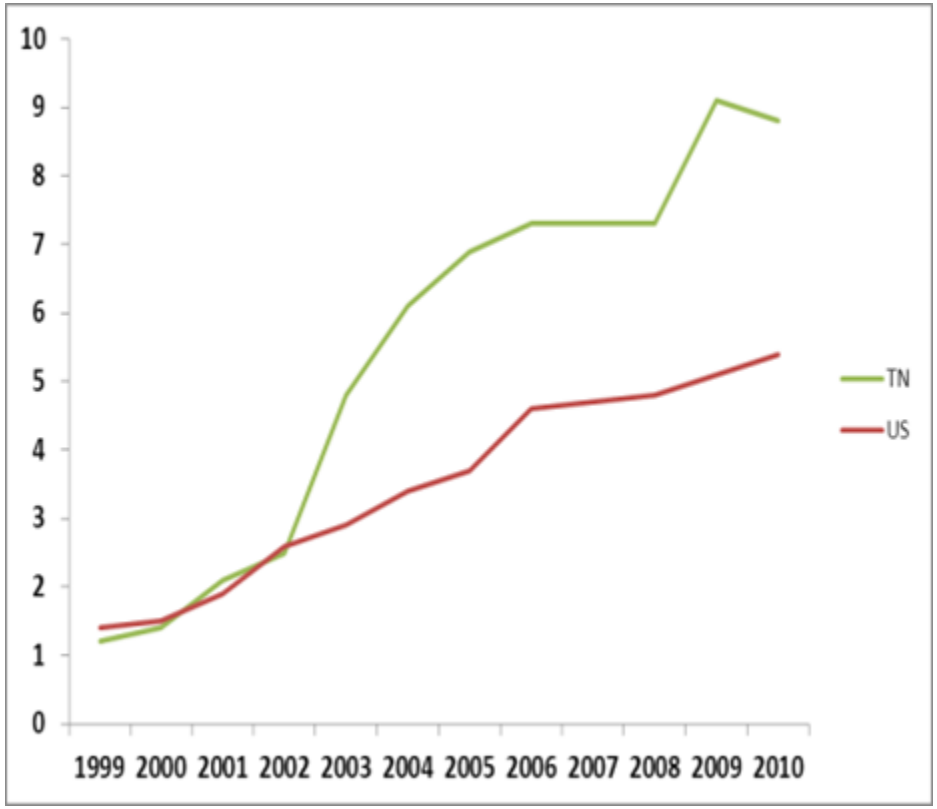


Opioid Prescription Rates by County – TN, 2011



Opioid-Related Overdose Death in TN

- Unintentional overdose deaths increased more than 250% from 2001-2011
- In 2010, this number exceeded deaths due to MVA, homicide, or suicide



Source: Tennessee Department of Health – Vital Statistics

John

Compassion

To suffer with.

Compassion asks us to go where it hurts, to enter into places of pain, to share in brokenness, fear, confusion, and anguish.

Nouwen, et al, 1982

“A physician shall be dedicated to providing competent medical care, with compassion and respect for human dignity and rights.”

The first principle of the Code of Medical Ethics of the American Medical Association

"The capacity to recognize, analyze and resolve ethical issues at the bedside is just as important as knowledge of basic and clinical sciences. This judgment follows inescapably if you accept the idea that the end of medicine is a right and good healing action of the particular human being. This capacity is at least one of the more tangible elements of compassion…

A reconstruction of professional ethics on a new appreciation of what makes for a true healing relationship between patients and physicians is both possible and necessary."

Ed Pellegrino, M.D. "Toward a Reconstruction of Medical Morality."
American Journal of Bioethics; 2006

“Can you develop compassion in the same sense that you acquire other knowledge and skills that make up the craft of medicine?…the conscientious physician *can* learn compassion. It can be done.”

Harvey V. Fineberg, M.D., Ph.D.
Donald E. Fineberg, M.D.
Foreward Medicine and Compassion, 2006.

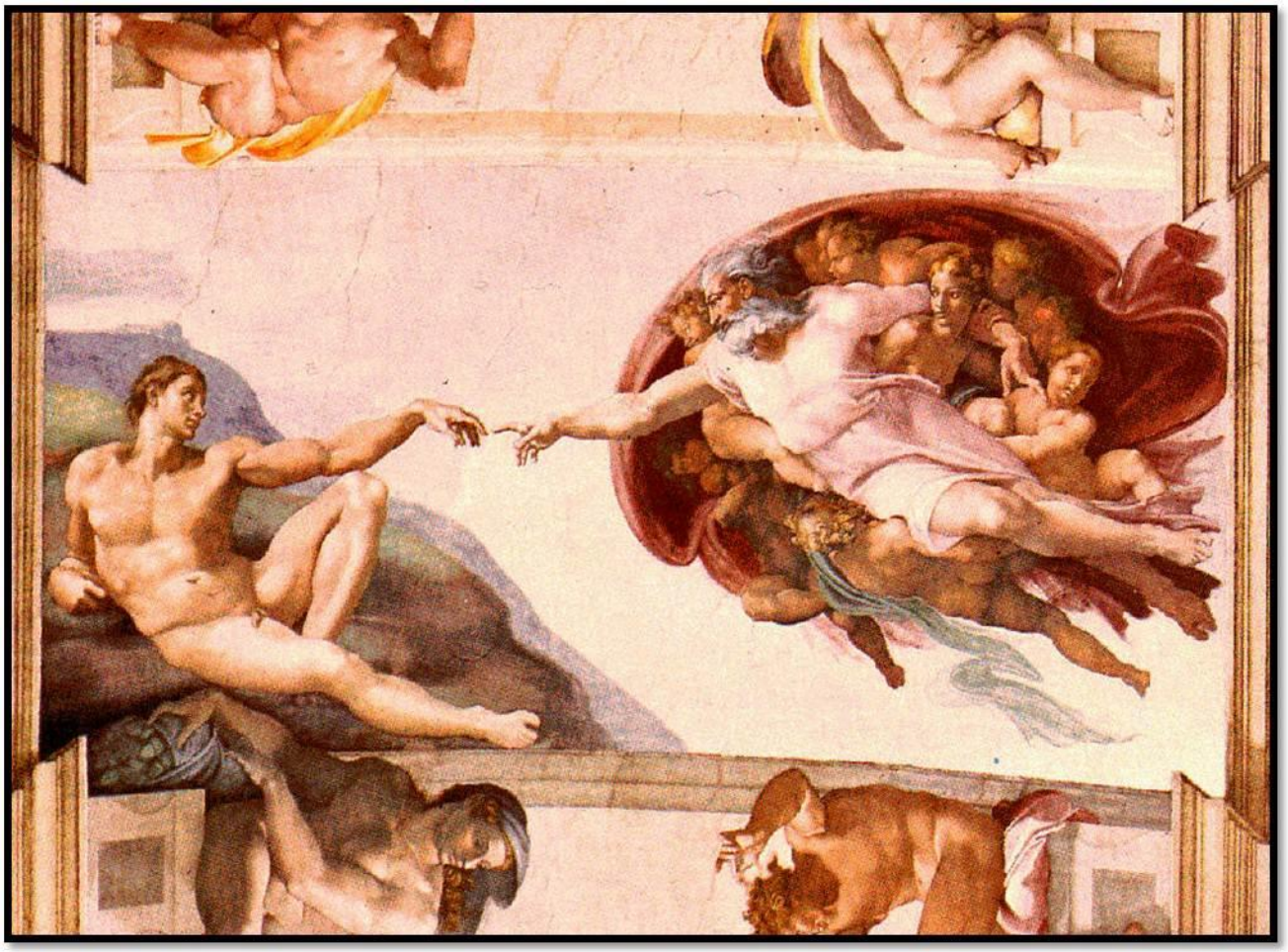
Today's Objectives

For all of us to make a radical shift in our understanding of chronic pain.

- A majority of pain comes from the central nervous system including the cerebral cortex.
- "I will understand central sensitization and hypersensitization"
- The brain is plastic and can change by engaging the executive function of the prefrontal cortex and by doing daily practices like exercise, mindfulness practice and biofeedback.
- Treating emotions through body-centered therapy "desensitizes" the individual by focusing directly on the body's manifestation of those emotions.
- The relationship between the clinician and the patient with chronic pain really matters.
- There is hope for the future.

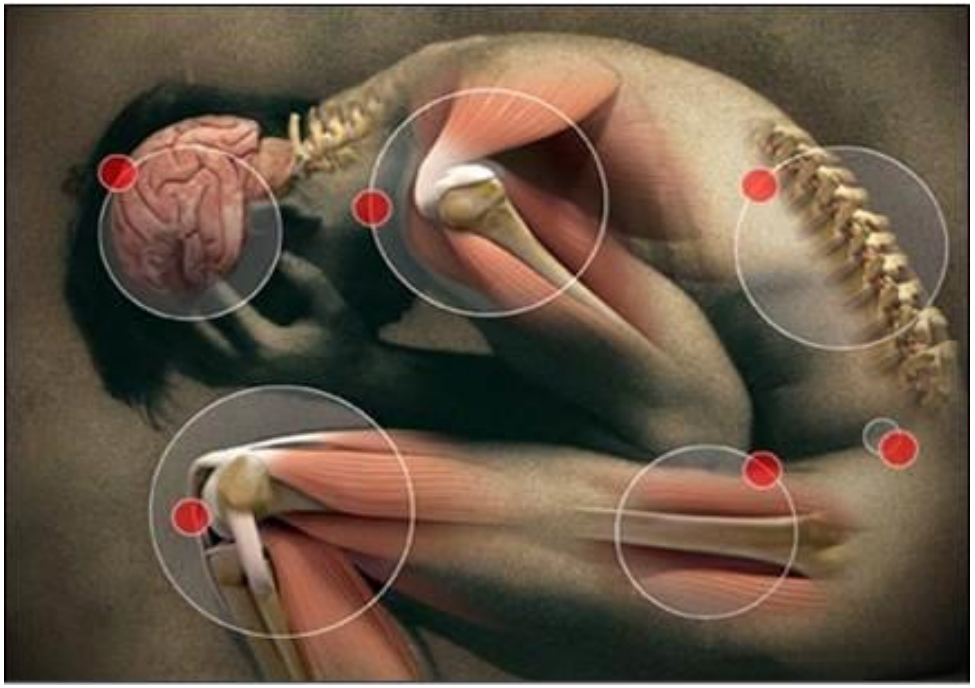
Question:

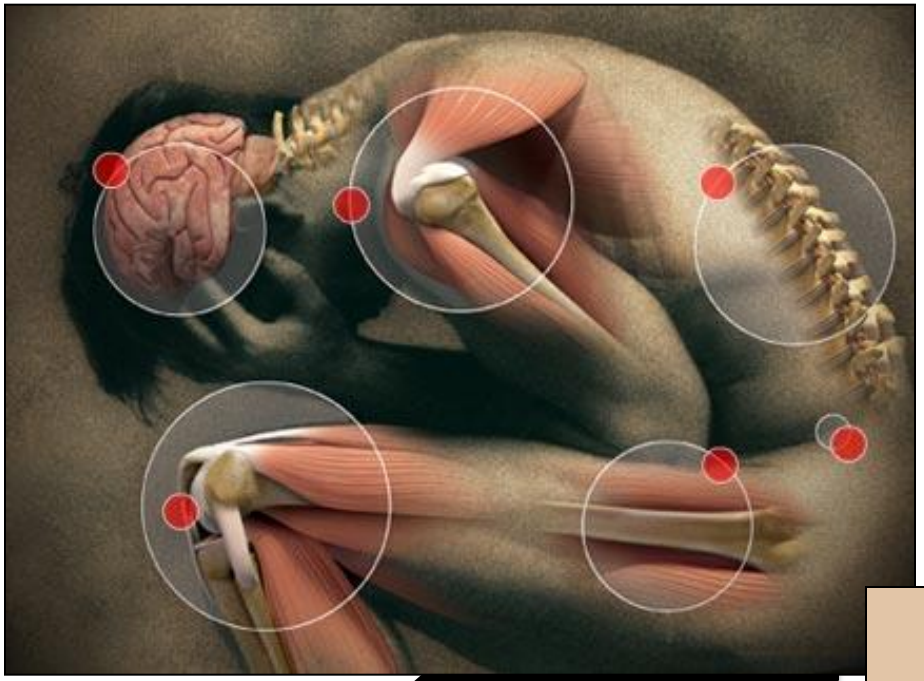
Where does this suffering originate?



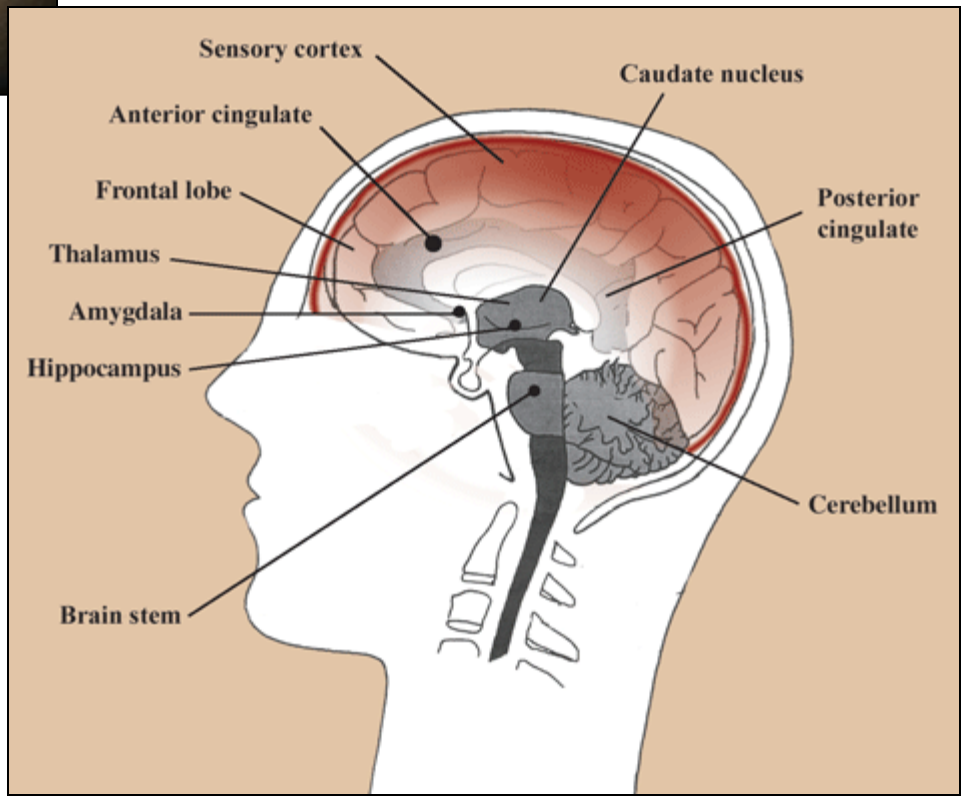
What is Chronic Pain?

- Pain that lasts longer than 3-6 months
- Pain that has lasted longer than it takes for tissue to heal



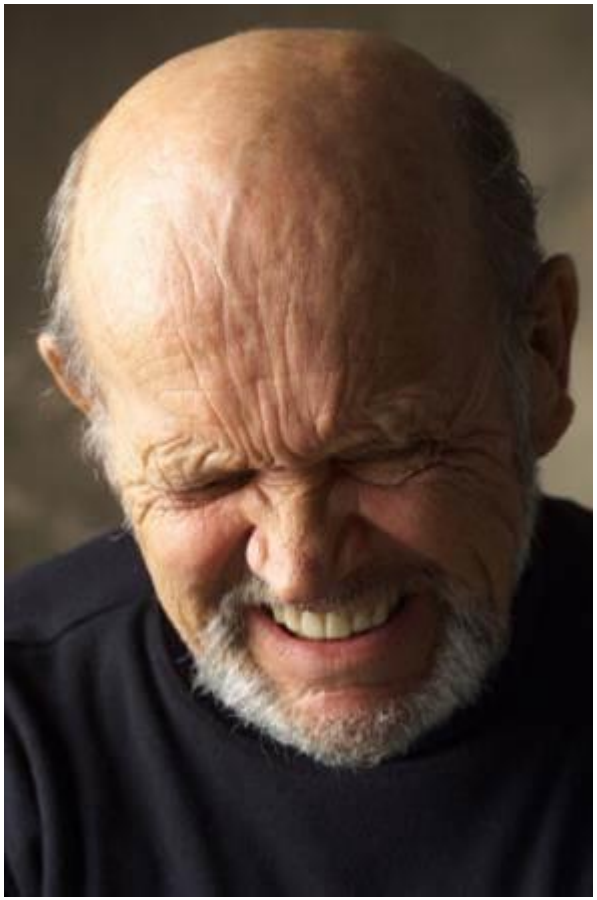


Where is Chronic Pain?



Pain – impact on society in 2012

- Primary reason people see a doctor
- Number 1 reason people out of work
- Affects 210 million US adults
- Annual cost of chronic pain $635 billion
  - More than heart disease, cancer, and diabetes combined
  - $300 billion direct costs
  - $335 billion in lost productivity
  - Health care costs for pain $5-10K greater per person than the mean of $4475/yr in US adults without pain



American Pain Society (2012, September 11). Chronic pain costs U.S. up to $635 billion. *Science Daily*. Retrieved January 26, 2013, from http://www.sciencedaily.com-/releases/2012/09/120911091100.htm

Phantom Limb

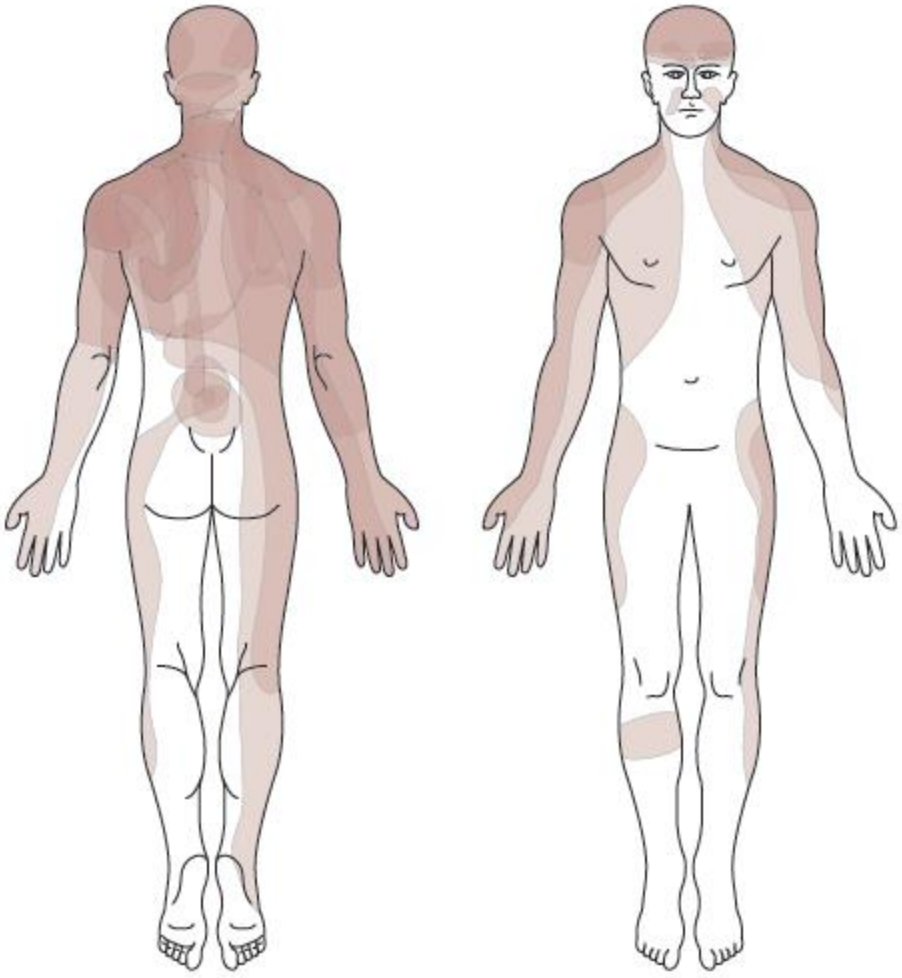
- Pain in missing limb
- Mirror visual feedback
- "There appears to be tremendous latent plasticity even in the adult brain."
- "The brain is a set of complex interacting networks…"

Ramachandran, V. (2005) Plasticity and Functional Recovery in Neurology. *Clinical Medicine* 5: 368-373.

Central Sensitization

"We learn from our everyday experience interfacing with the external environment to interpret pain as reflecting the presence of a peripheral damaging stimulus and indeed this is critical to its protective function. Central sensitization introduces another dimension, **one where the CNS can change, distort or amplify pain**, increasing it's degree, duration and spacial extent in a manner that no longer directly reflects the specific qualities of peripheral noxious stimuli, but rather, the particular functional states of circuits in the CNS."

Woolf, C. (2011) "Central sensitization Implications for the diagnosis and treatment of pain." *Pain* 152: S12-S15.



Distribution of ongoing pain in patients with whiplash pain presented as an example of a widespread pain condition.

The pain areas from 11 patients are superimposed; common pain areas are darker than the pain areas identified in only a few patients.

Graven-Nielsen, T. & Arendt-Nielsen, L. (2010). Assessment of mechanisms in localized and widespread musculoskeletal pain. *Nat. Rev. Rheumatol*. 6, 599–606.

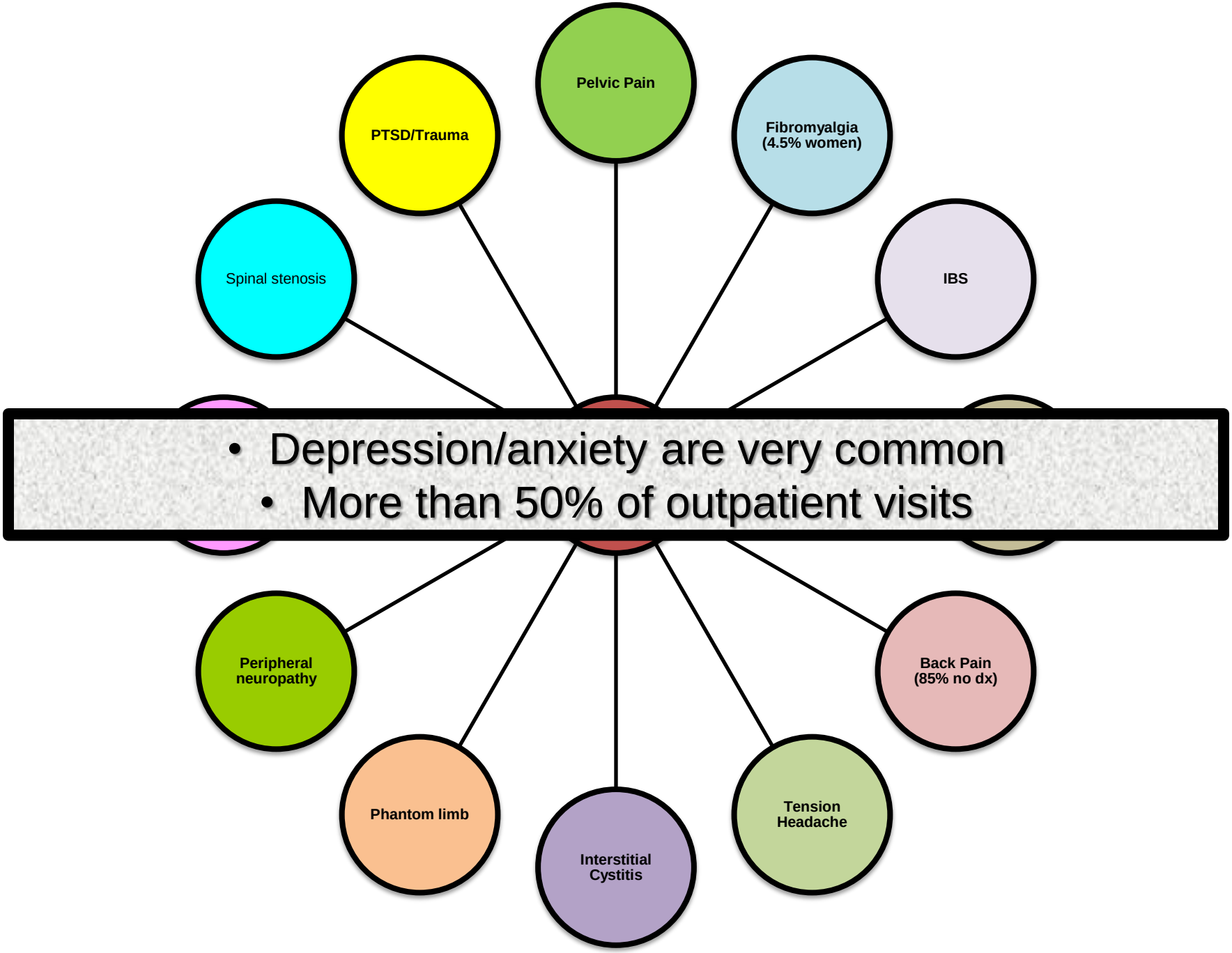
Hypersensitization:
Patient's Experience

- Waxes and wanes
- Entire body can feel sensitized or on fire
- Strange nonsensical pain can be isolated or widespread
- Common pain conditions such as RA, migraine or IBS explode with symptoms
- Stress increases sensitization
- Clinicians assume patient is drug seeking, a cry baby or crazy

Two Forms of Pain Hypersensitivity

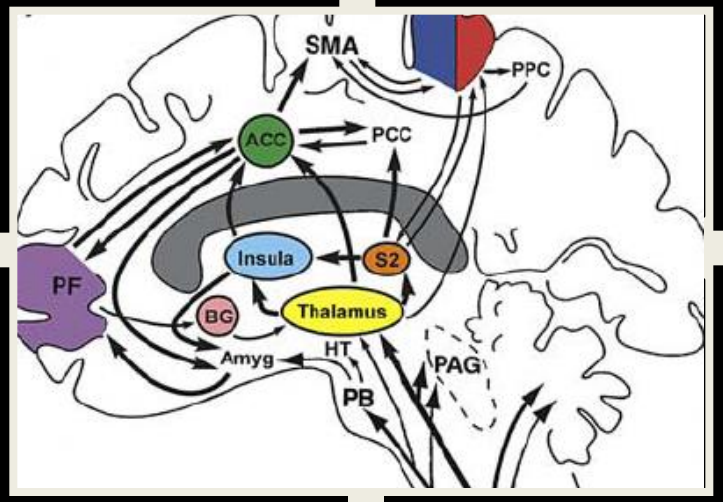
- Thresholds are lowered so that stimuli that would normally not produce pain now begin to (allodynia).
- Responsiveness is increased so that noxious stimuli produce an exaggerated response and prolong pain (hyperalgesia).

Clifford J. Woolf, Director of the Neural Plasticity Research Group. http://www2.massgeneral.org/nprg


Pelvic Pain
PTSD/Trauma
Fibromyalgia (4.5% women)
Spinal stenosis
IBS
• Depression/anxiety are very common
• More than 50% of outpatient visits
Peripheral neuropathy
Back Pain (85% no dx)
Phantom limb
Interstitial Cystitis
Tension Headache

Depression

Pain Disorder

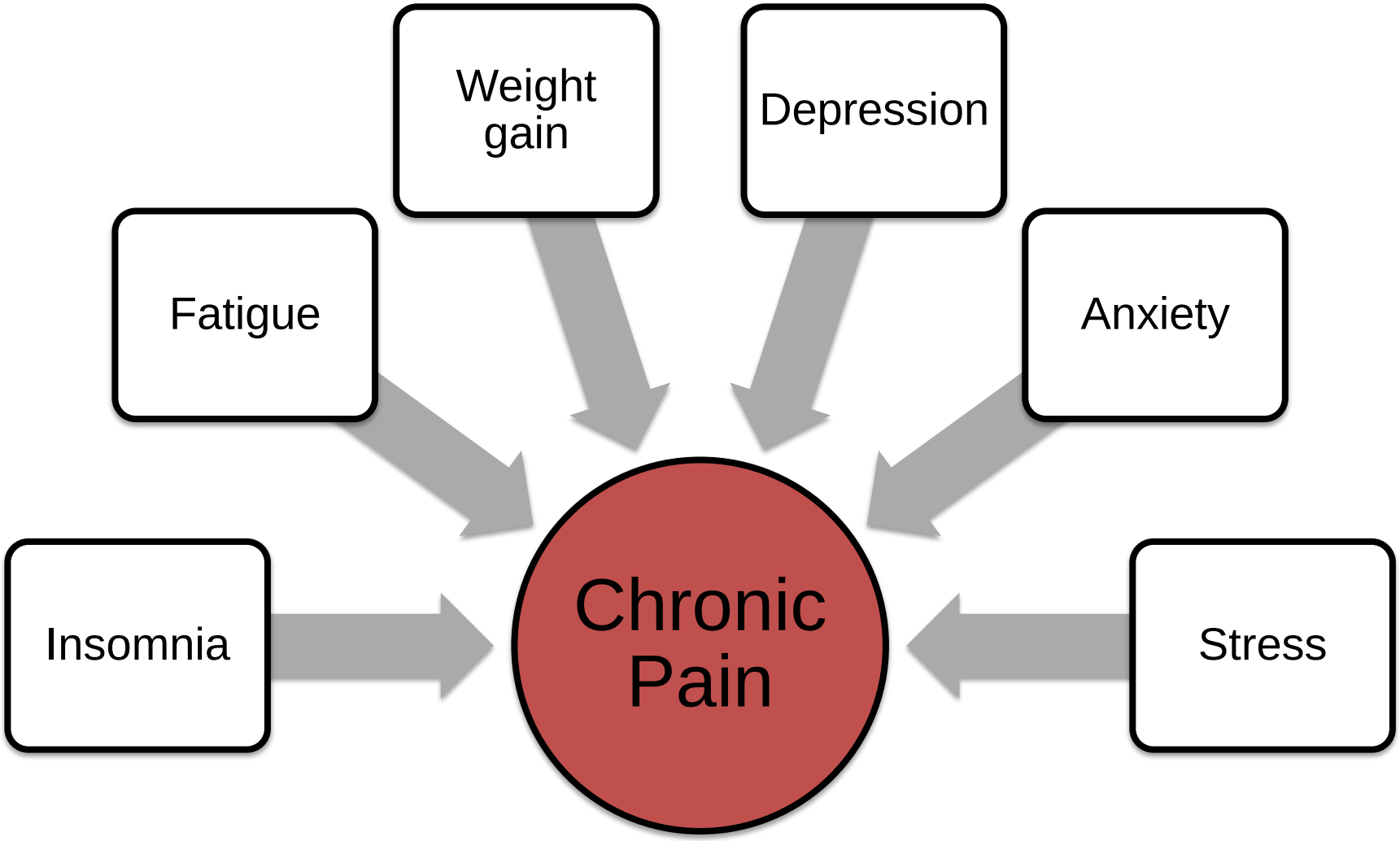


Anxiety

Impaired Physical Functioning

Impaired Social Functioning

Conditions Associated with Chronic Pain



State of the Union

- Multiple providers treating multiple individual somatic complaints
- Polypharmacy
  - Potentially dangerous drug-drug interactions
  - Worsening of symptoms (multiple chemical sensitivity in patients with CS already)
  - Reduced functionality from side effects
  - Increased financial burden on patients and institutions

Opioids should have a ***minor*** role in treatment of chronic pain.

Unfortunately they now have the ***leading*** role.

What do “we” really need?

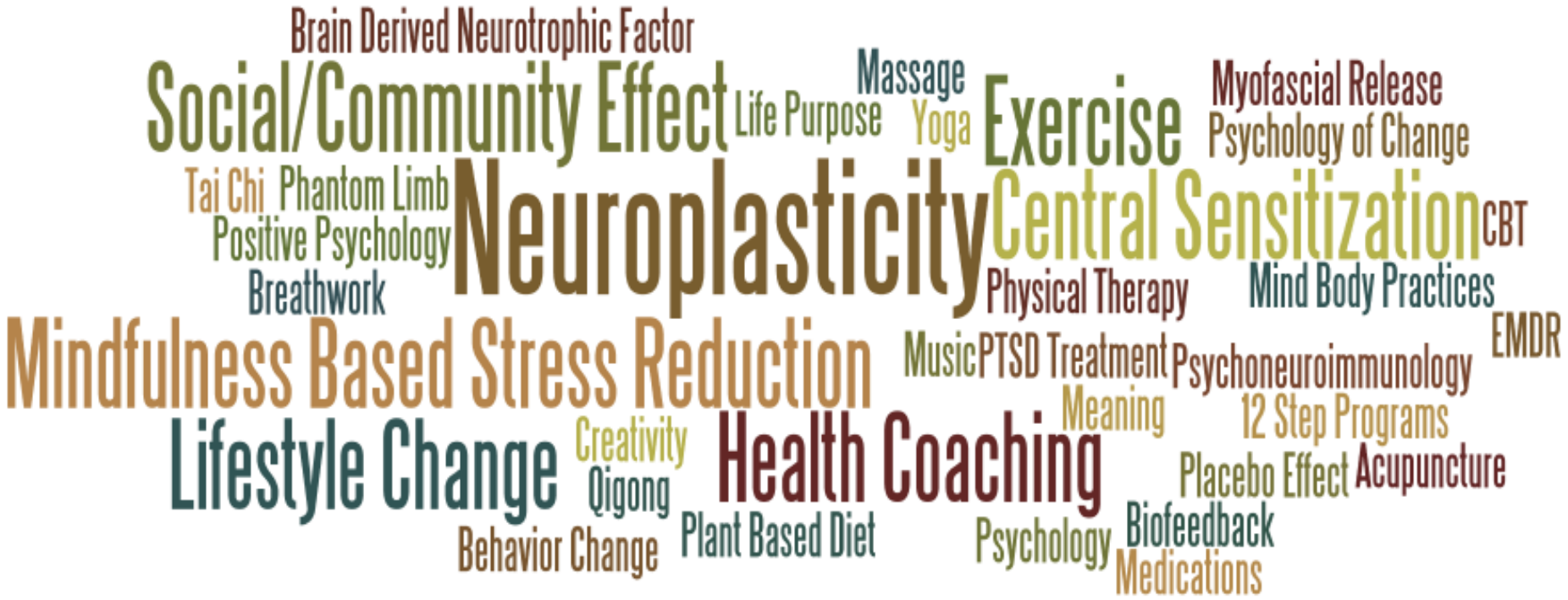
- Patients:
  - Improvement in general function
    - Physical
    - Social
    - Vocational
- All of us:
  - Reduction in opioid/sedative medication
  - Reduction in health care utilization

Sanders e al, Pain Practice 5(4) 303-315

THE Critical Message

- We MUST have a shift from the concept of a "quick fix" or "cure" with a pill or a procedure
- It does **not work** in central sensitization syndromes
  - Chronic pain **cannot** be treated effectively by focus on individual somatic symptoms
  - Somatic and emotional pathways in the CNS **cannot** be separated in theory or reality

The Evidence-Based Toolbox for the 80%……



OCIM Interprofessional Team

- Nurse Practitioners:
  - Massage Therapist
  - Psych NP
  - Health Coach Leader
  - Diabetes NP
- Yoga Instructors
- Body-Centered Psychologists
  - Mindfulness Director
  - Pain Psychologist
- Massage Therapist
- Nutrition Coach
- Research Scientists
  - (Yoga Instructors)
- Physician
  - (Medical Director)
- Acupuncturist
  - (NIH-funded Neuropharm.)
- Tai Chi Instructor
- Physical Therapist
- The Staff
- The Patient

The Future

PLAN SUMMARY

- 3 concurrent weeks; 5 days per week
- 15 x 7-hour sessions
- Upon completion; 6 month of phone "coaching aftercare" to ensure compliance and prevent relapse

PROVIDERS

- MD
- NP
- Physical Therapist
- Psychologist
- Occupational Therapists
- Nutritionist
- Yoga/Mind-Body Instructor

PROGRAM SERVICES

- Pain, Sensory and Behavioral Testing
- Occupational Therapy
- Physical Therapy
- Complementary Therapies; including Yoga, Tai Chi; Exercise, etc.
- Wellness (smoking cessation, nutritional counseling, positive affect)
- Pain education, understanding of chronic disease management
- Cognitive behavioral therapies, individual and group therapies
- **Medication optimization**