Non-Pharm Care of Chronic Pain

BRYAN MACLEOD, MD, FCFP

Disclosure Slide

- **Speaker Name: Bryan MacLeod, MD, FCFP**

- **Relationships with for-profit organizations: None**
- **Relationships with not-for-profit organizations:**
  - **Grants/Research Support: NOAMA X 2 / NOSM**
  - **Speakers Bureau/Honoraria: None**
  - **Consulting Fees: CPSO assessor**

Disclosure of Financial Support

- **This program has received financial support from the Ontario College of Family Physicians in the form of an honorarium.**

- **<u>Potential for conflict(s) of interest</u>:**
  - Bryan MacLeod has received funding as co-chair of ECHO SJCG Chronic Pain

Non-pharm approaches to CP in < 35 minutes

Treatment Options for Pain

PHYSICAL	PSYCHOLOGIC	PHARMACOLOGICAL	INTERVENTIONAL
Normal activities Splinting / Taping Tai Chi Aquafitness Physio • Passive • Active Stretching **Conditioning** Weight training Massage TENS Transcranial Magnetic Stimulation Chiropractic Acupuncture *Dolphin*	Hypnosis Stress Management Cognitive-Behavioural Family therapy Psychotherapy Mindfulness-Based Stress Reduction Mirror Visual Reprogramming	OTC medication Alternative therapies Topical medications NSAIDs / COXIBs DMARDs Immune modulators Antidepressants Anti convulsants Gabapentinoids Opioids Muscle relaxants Sympathetic agents NMDA blockers Cannabinoids Oral vs. Topical	I.A. steroids I.A. hyaluronan Trigger pt. injectns IntraMuscular stim. Prolotherapy Nerve blocks Epidurals Orthopedic surgery Radio frequency facet neurotomy Neurectomy Implantable stimulators Implantable pain pumps

Learning Objectives / Pearls

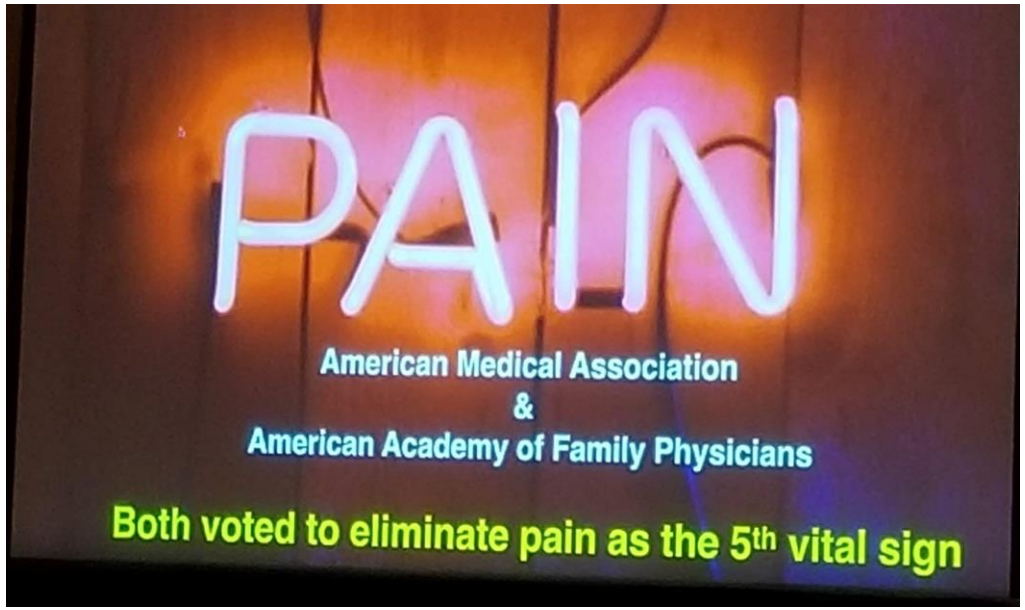
- Make the Diagnosis
- Look for comorbidities
- Assist to Reduce Social Isolation
- Movement is Medicine: Promote [realistic] Movement
- Sleep is Important
- You are Not Alone

The Case: In Brief

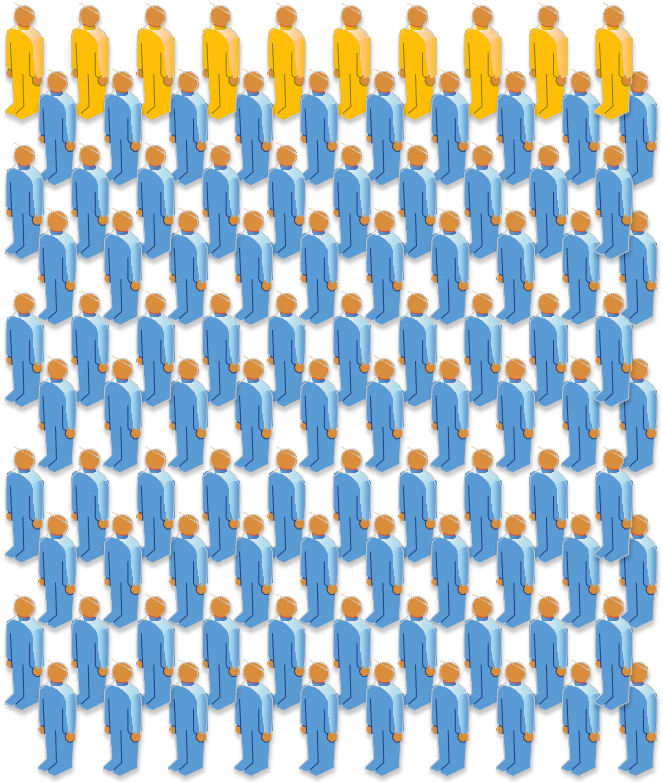
- 34 y.o. female, previous hairdresser
- CP since C/S, birth of her Son 13 yrs ago
- Dx Fibro, chronic abdo pain
- MEQ/DME = 180mg

Why non-pharm approach to chronic pain?

- Political climate
- Small toolbox



The Problem with Randomized Controlled Trials and Chronic Pain



10% of persons with chronic pain qualify for clinical trials

90% do not qualify!!!

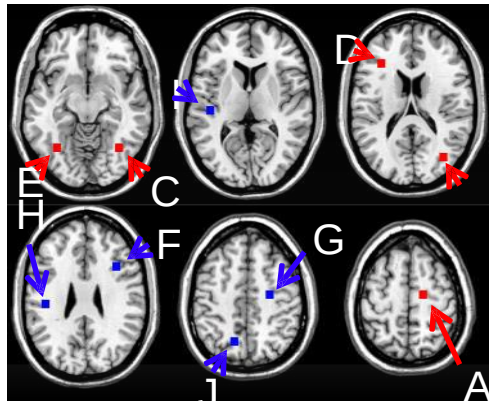
With thanks to S e a n M a c k e y, M D , P h D, Standford

Brain Signature of Chronic Low Back Pain

47 chronic low back pain and matched controls
High res structural MR images

No mood/thought, personality disorders
No radiculopathy
No prescription or high-dose analgesics

Trained SVM on gray matter differences.



Statistic	Result
Accuracy	76%*
Sensitivity	76%*
Specificity	75%*

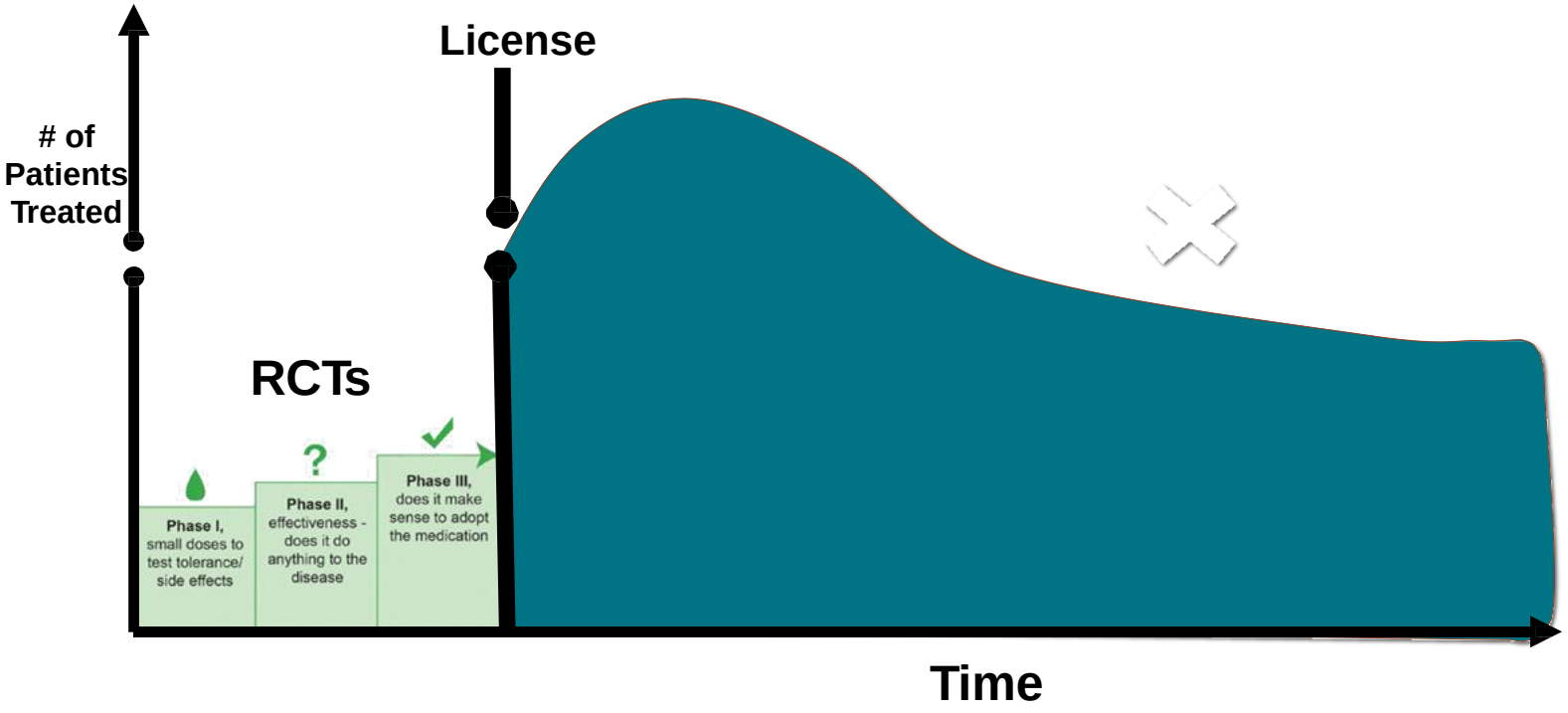
*p<0.001

	Increase GM in patients
F	R Middle Frontal Gyrus R
G	Middle Frontal Gyrus
H	L Primary Somatosensory Cortex (S1)
I	L Insula
J	L Precuneus

	Decreased GM in patients
A	R Supp. motor area (SMA) R
B	Middle Occipital Gyrus R
C	Fusiform Gyrus
D	L Inferior Frontal Gyrus L
E	Fusiform Gyrus

Ung, Johnson, Younger, Hush, Mackey, *Cerebral Cortex* (2012)

RCTs do not generalize well….

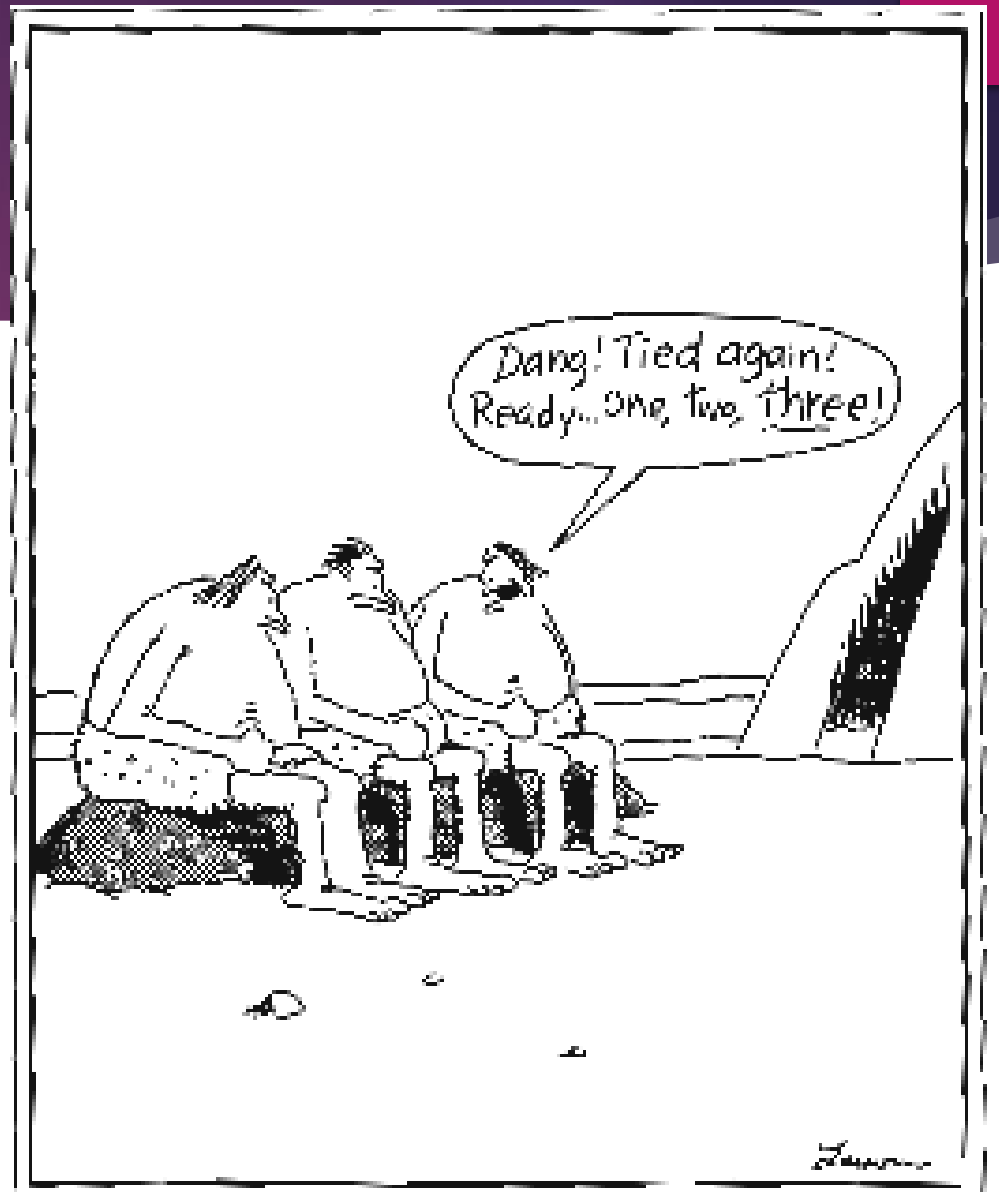


With thanks to Sean Mackey, MD, PhD, Standford

Medications: Enablers not Cures

- At best pharmacology provides a 30-50% relief
  - Perhaps except for topicals for isolated neuropathies ($$$)
- Think of them as any other passive therapy.
- They do come at a cost.
  - Weight gain, dry mouth, fatigue, cloudy thinking, dep. edema…

Not enough tools…



Before paper and scissors

The Chronic Pain Spiral

Doc MacLeod's Top 10 Non-Pharm Ways of Improving CP Management

- Make the Diagnosis
  - What [insert your degree here] School Didn't Teach Us
- Look for comorbidities
- Assist to Reduce Social Isolation
- Movement is Medicine: Promote [realistic] Movement
- Sleep is Important
- You are Not Alone
- The Dropbox

The Top10 Dropbox

- Follow this QR code for drop box all resources referenced in this talk and more! Or: this link: MacLeodtop10
- This is a "living link" that will be updated with more resource material as it becomes available.
- If clicking doesn't work cut and paste: https://bit.ly/2Jqy6Mu

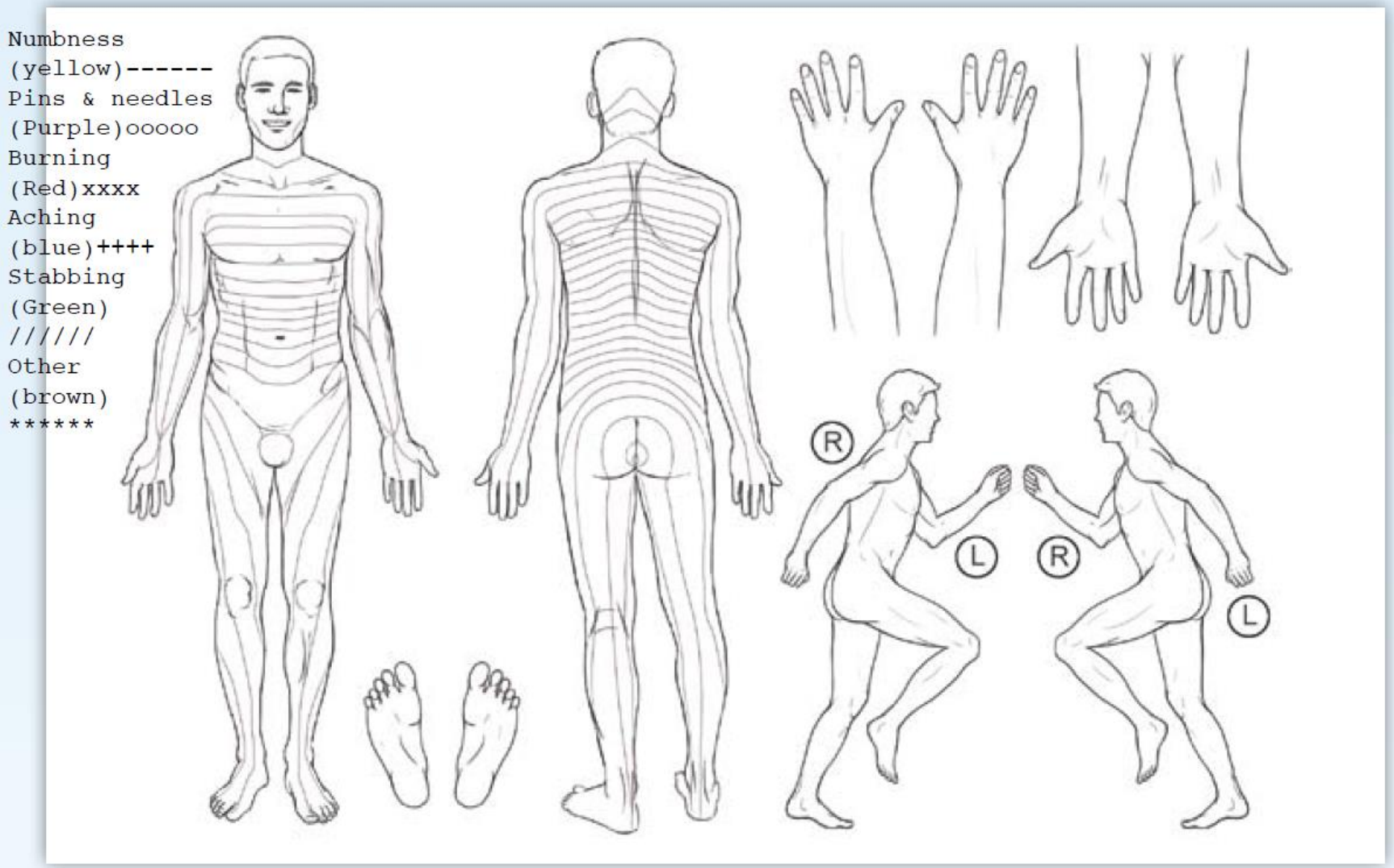
What Med-School/Bates Didn't Teach Us

- The Non-Pharm Management of Chronic Pain
- The Importance of Loss of Social Role, Poverty, Trauma as Central Drivers of Chronic Pain
- Things change when they are chronic:
  - Neuro-Plasticity
  - Deconditioning & maladaptive behaviours
- Muscles have their own pain patterns: Myofascial Pain
- Connective Tissue is important: Hypermobility
- Two Key Questions

Make the Diagnosis

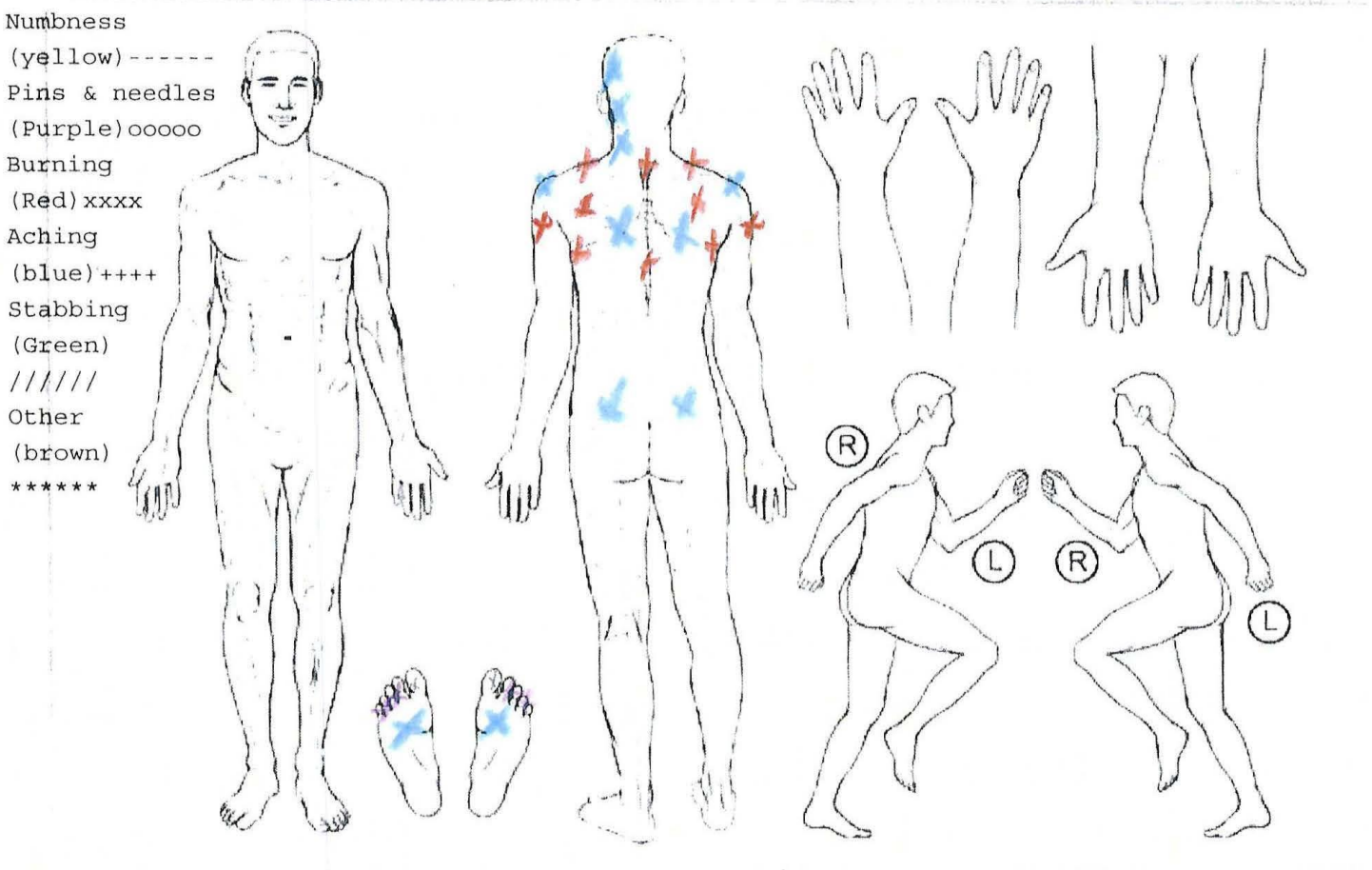
- The History: OLDCARTS + 2
  - Sensitization?
    - “Does anything hurt that shouldn’t? The light touch of clothing, bedding, underwear?..”
  - Dysautonomia?
    - “any problems with limb swelling, swetting, colour or temperature change, or abnormal hair/nail growth?...” –
    - Often asymetric
- BPI : a picture is worth a thousand words

On the diagram below, shade in the areas where you feel pain. Put an "X" on the areas where it hurts the most.

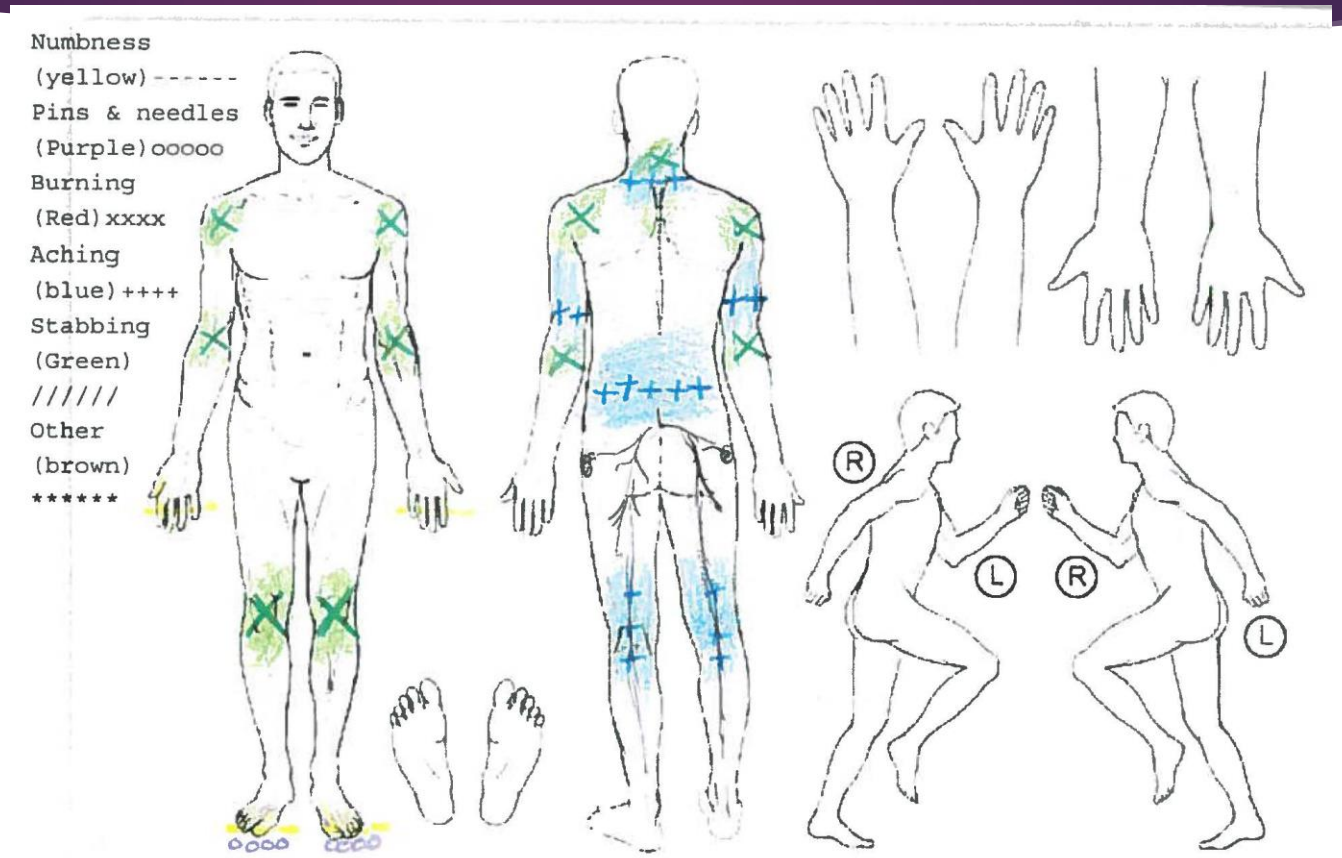


The importance of a Picture

Person # 1 – Fibromyalgia?



Person #2 – Fibromyalgia?



Seek Out & Address Comorbidities:

- BioPsychoSocial Intake Form
  - Poverty Screen
- Depression/Anxiety/Trauma
  - Anxiety 40%
  - Suicidality twice normal levels
- Kinesiophobia (TKS)
- Catastrophizing
- mTBI – Post-Concussion Syndrome
  - Often missed
  - ++ overlapping features
- Hypermobility/Connective Tissue Issues (the case)
  - JHS = 5% of pop'n
  - hEDS, POTS, MCAS
  - Toolkit: EDS Toolkit

The International Consortium on Ehlers-Danlos Syndromes & Related Disorders
In Association with The Ehlers-Danlos Society

Diagnostic Criteria for Hypermobile Ehlers-Danlos Syndrome (hEDS)

This diagnostic checklist is for doctors across all disciplines to be able to diagnose EDS

Distributed by The Ehlers Danlos Society.

Patient name: _____ DOB: _____ DOV: _____ Evaluator: _____

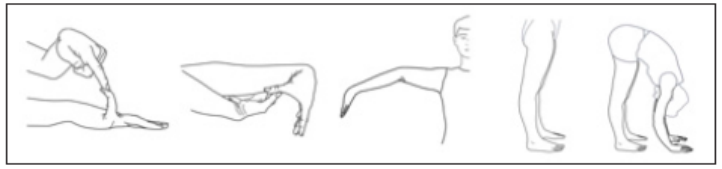
The clinical diagnosis of hypermobile EDS needs the simultaneous presence of all criteria, 1 ***and*** 2 ***and*** 3.

CRITERION 1 – Generalized Joint Hypermobility

One of the following selected:

- ☐ ≥6 pre-pubertal children and adolescents
- ☐ ≥5 pubertal men and woman to age 50
- ☐ ≥4 men and women over the age of 50

Beighton Score: _____/9



If Beighton Score is one point below age- and sex-specific cut off, two or more of the following must also be selected to meet criterion:

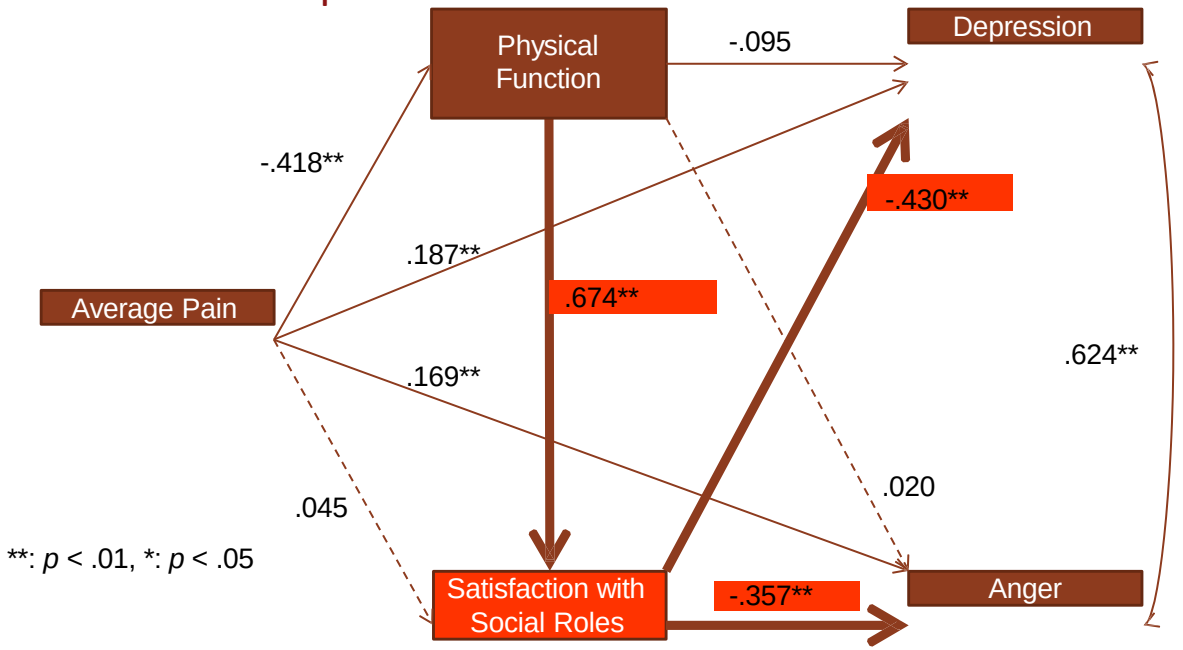
- ☐ Can you now (or could you ever) place your hands flat on the floor without bending your knees?
- ☐ Can you now (or could you ever) bend your thumb to touch your forearm?
- ☐ As a child, did you amuse your friends by contorting your body into strange shapes or could you do the splits?
- ☐ As a child or teenager, did your shoulder or kneecap dislocate on more than one occasion?
- ☐ Do you consider yourself "double jointed"?

Hypermobility checklist

Reduce Isolation & Promote Socialization

- Physically & Mentally Exhausting
- Loss of Social Roll
- Stigma/Feeling-Being Judged
- Poverty
- Loss of Social Purpose/Role
  - Strongest predictor of persistent pain; Anger; Depression

Social satisfaction mediates pain-related emotional distress



- Higher pain significantly predicts higher levels of both depression and anger
- When both physical function scores and satisfaction with social roles and activities were modeled as mediators:
  - Physical function significantly mediated the relationship between pain intensity and social satisfaction
  - Social satisfaction, but not overall physical function, significantly mediates relationship between pain intensity and emotional distress

Sturgeon, J. A., Dixon, E. A., Darnall, B. D., & Mackey, S. C. Contributions of Physical Function and Satisfaction with Social Roles to Emotional Distress in Chronic Pain: A Collaborative Health Outcomes Information Registry (CHOIR) Study. *Pain*. (2015)

CHOIR Collaborative Health Outcomes Information Registry

Movement is Medicine; Motion is Lotion;

- Reinforce Safe Movement
  - Prescribe Movement (exercise is Medicine Canada)
  - In the case of Fibro, the pool is best: LR 1.67'ish
- Avoid prescribing "rest only"
- It doesn't have to be Yoga or Pilates:
- "In the absence of a single exercise program outperforming others, patients should be encouraged to choose an activity either land based or water, that is enjoyable, easy to follow, convenient and within budget in order to improve adherence" Fmguidelines: http://fmguidelines.ca/

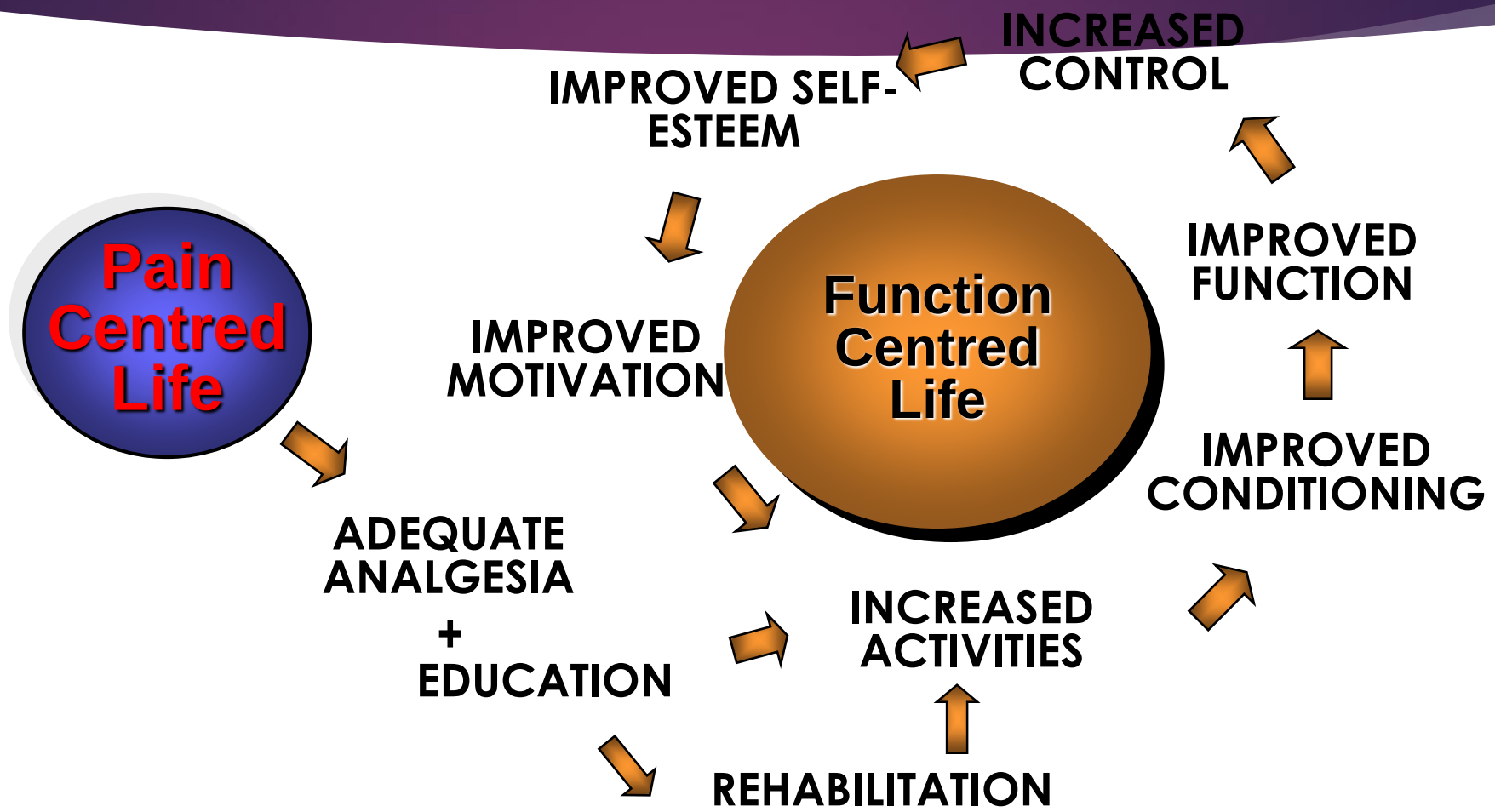
Sleep is Central

- Sleep Hygiene Handout
- Sleep Apnea Comorbidity
  - By MEQ/DME of 600mg = 100% Sleep Apnea
- Medications that harm sleep
  - Benzodiazepines
  - SSRIs/SNRIs
  - Medical Marijuana in the longer term (tolerance and withdrawal)
- Sleep friendly meds:
  - TCA
  - pregabalin

You are Not Alone

- MMAP: The Collaborative Mentoring Networks Around Mental Health, Chronic Pain And Addictions
- ECHO: www.echoontario.ca ; www.echo.sjcg.net
- eConsult: https://otnhub.ca/

Chronic Pain Spiral
Breaking Free



Thanks!

Bryan MacLeod, MD, FCFP

bmacleod@nosm.ca

Associate Professor, NOSM

Physician Lead to the

St. Joseph's Care Group

Chronic Pain Management Program