Judy Leader,
Nurse Practitioner
Pain Management, 2018

Pain is…

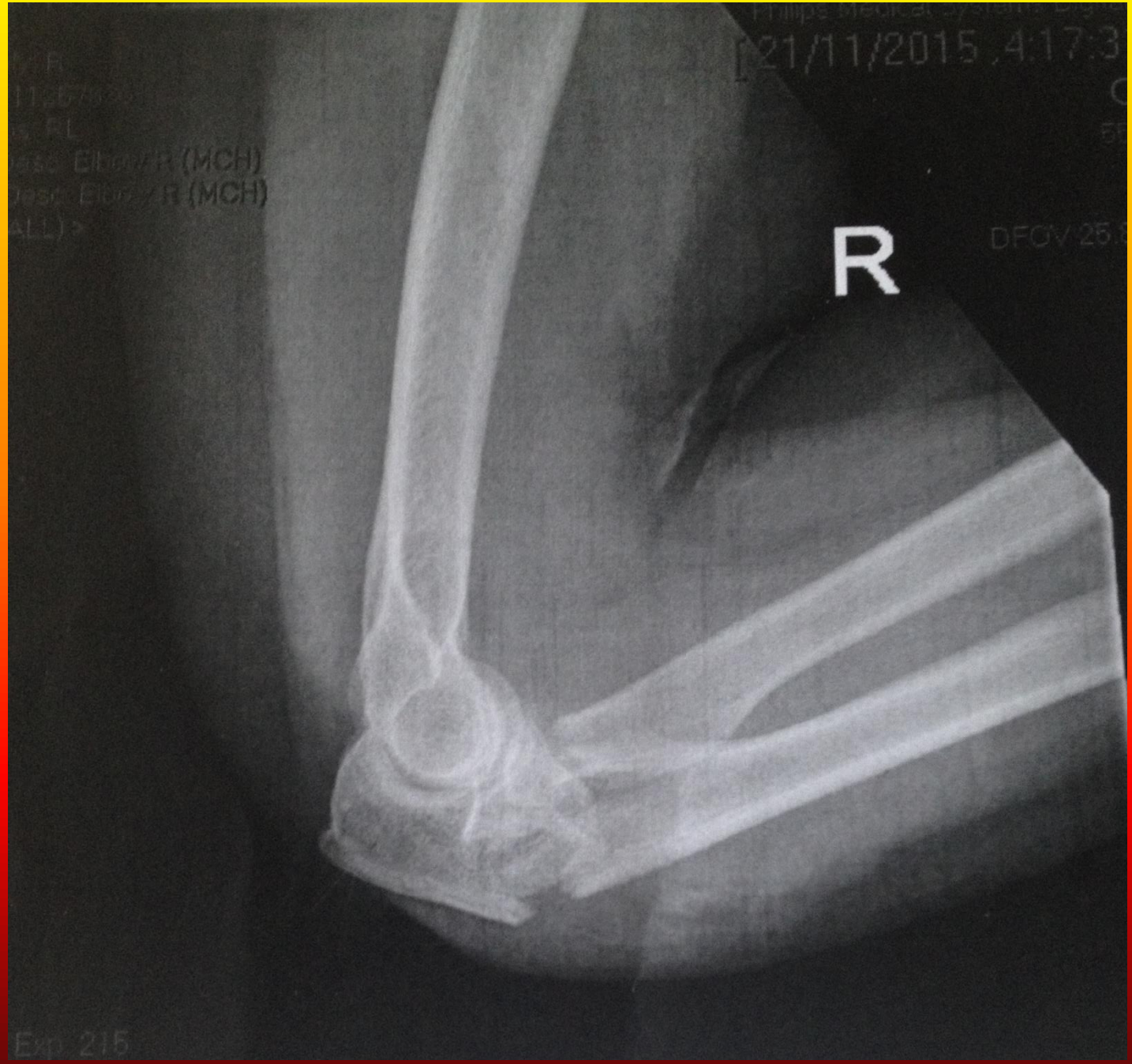
An unpleasant sensory and emotional experience associated with actual or potential tissue damage or described in terms of such damage

Australia and New Zealand College of Anaesthetists and Faculty of Pain Medicine. (2005). *Acute Pain Management: Scientific evidence (2nd ed.).* Australia.

By taking responsibility for how we understand pain, we can recover the power to alleviate it.

Morris 1991


visualparadox.com


R
Exp 215

Shocked
Shattered
Shredded

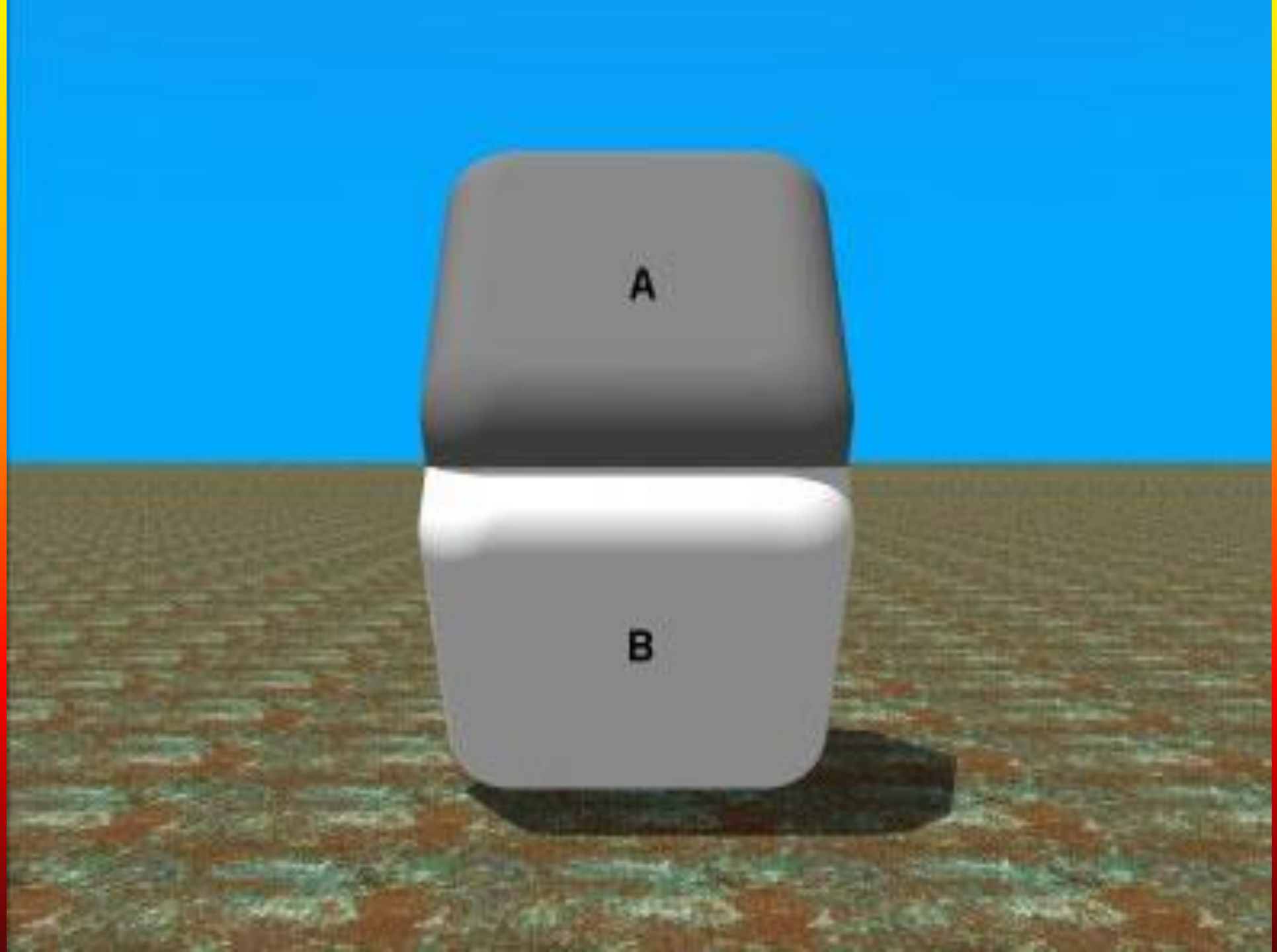
Unnatural
Unprepared
Unspeakable

Devastated
Distressed
Disturbed

Our responses
are real;
As are our
patients

PAIN & DISTRESS

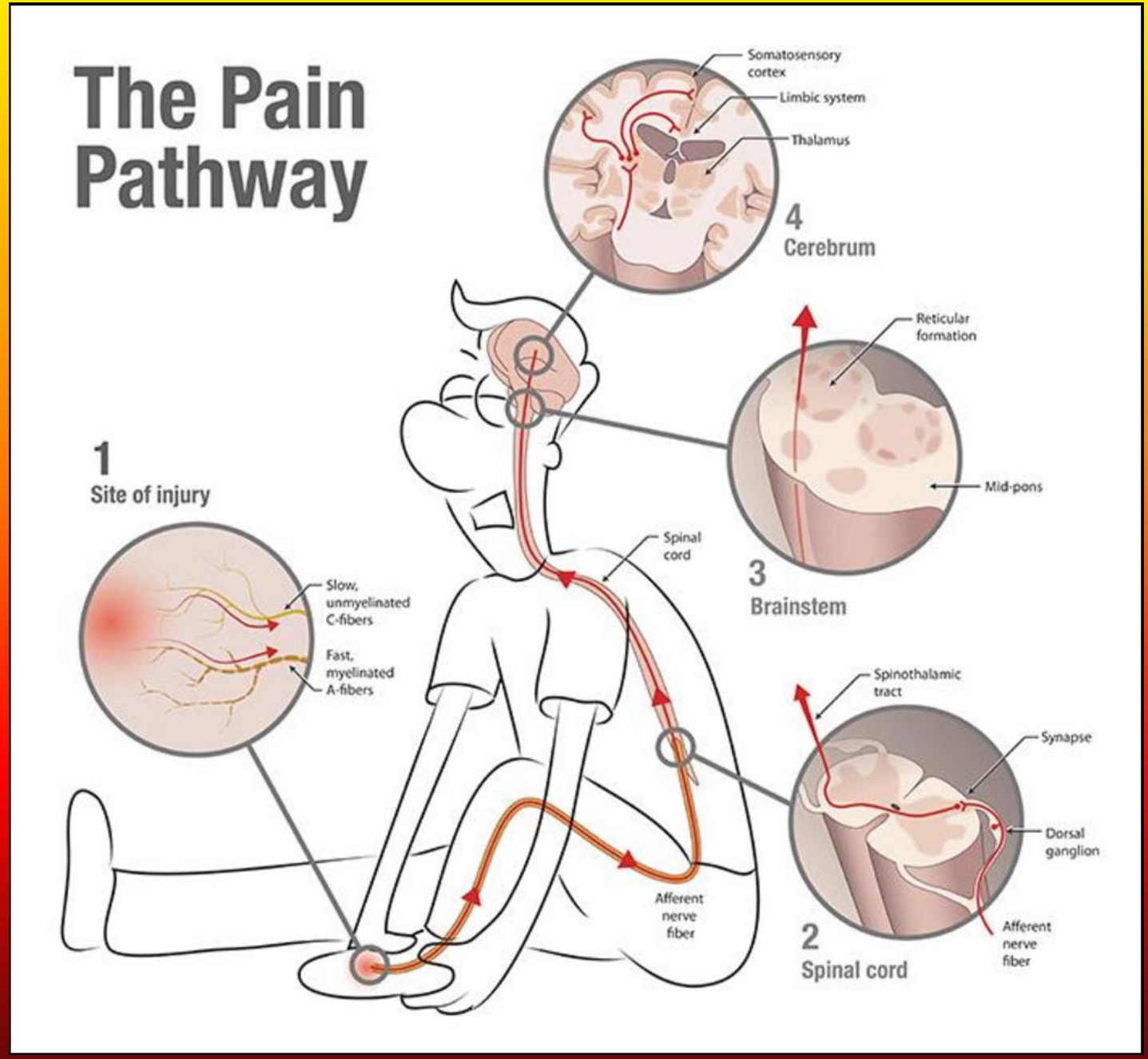
Barriers to effective pain management


A
B

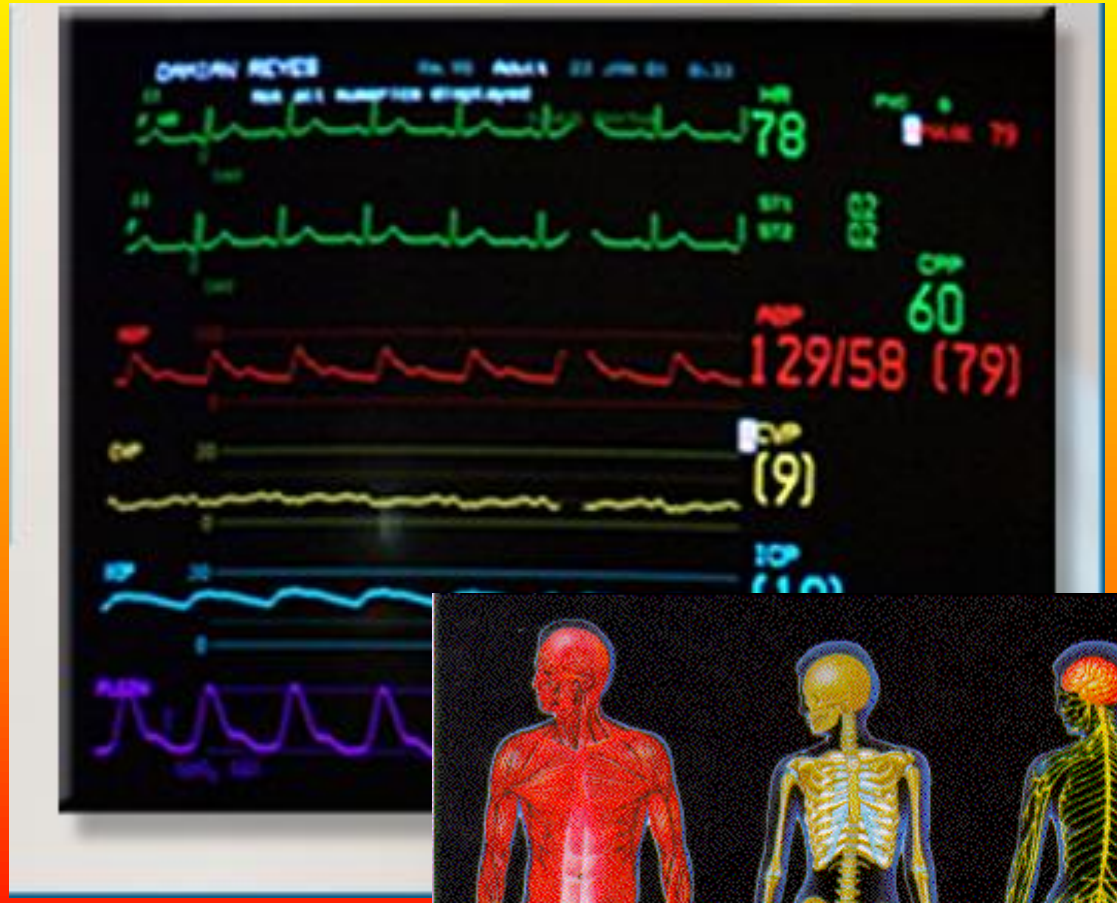
We see what we look for;
we look for
what we know.

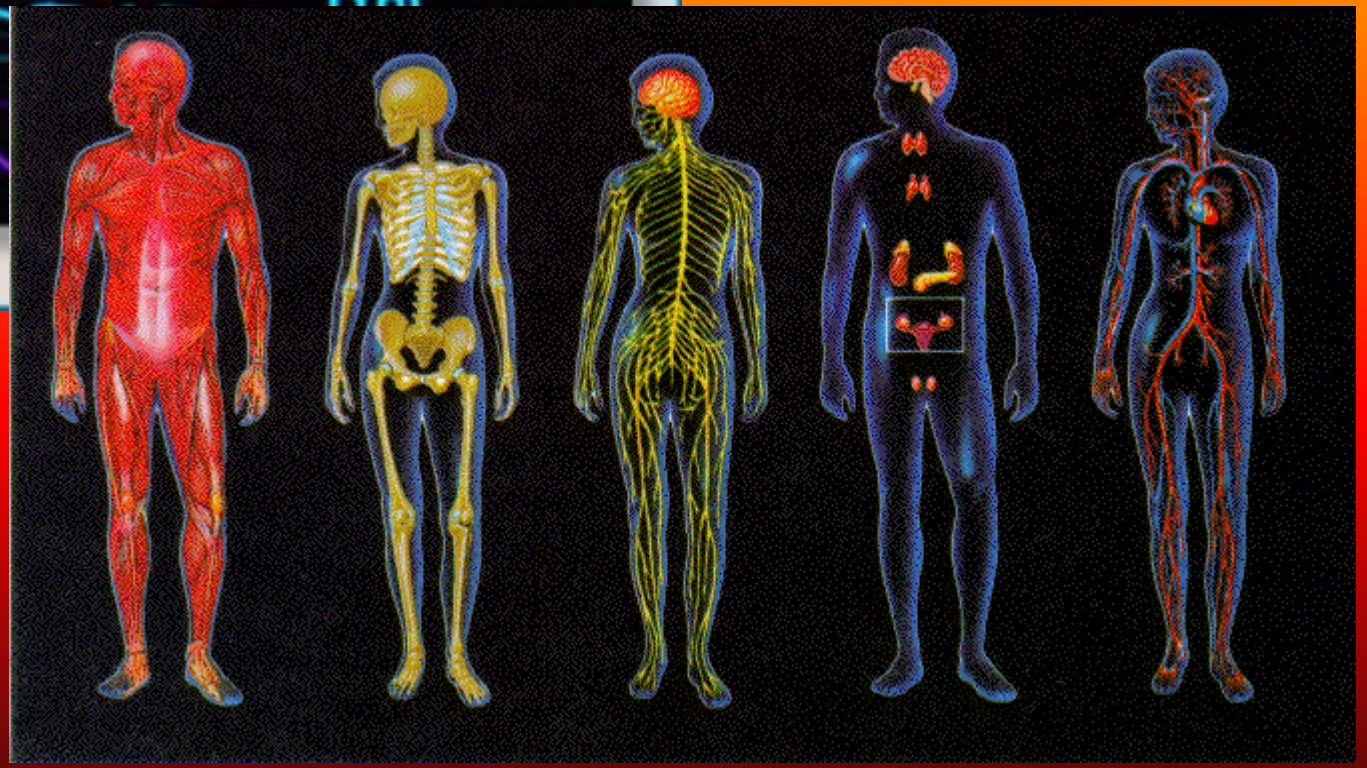
Goethe


A
B


The Pain Pathway
Somatosensory cortex
Limbic system
Thalamus
4
Cerebrum
Reticular formation
Mid-pons
3
Brainstem
1
Site of injury
Spinal cord
Slow, unmyelinated C-fibers
Fast, myelinated A-fibers
Spinothalamic tract
Synapse
Dorsal ganglion
Afferent nerve fiber
Afferent nerve fiber
2
Spinal cord

There are sensors
that detect changes in
your body and the
environment and
send danger
messages to the brain


78
60
129/58 (79)
(9)



Nonsense	Accurate	Lay term
Pain stimulus	Noxious stimulus OR painful stimulus	Danger stimulus Or painful stimulus
Pain receptor/pain endings	Nociceptor	Danger detector/danger receptor
Pain pathway	Nociceptive pathway/second order nociceptor/spinal nociceptor	Danger transmitter/danger messenger
Descending pain inhibition (control)	Descending antinocicepion/inhibition	Turning down the danger message
Descending pain facilitation	Descending pronociception/facilitation	Turning up the danger message

G.Moseley & D. Bultler 2017

THREE MAIN TYPES OF PATHOPHYSIOLOGY

can be considered to result in chronic pain[1]

Pain related to ***damage* of somatic or visceral tissue,** due to trauma or inflammation

NOCICEPTIVE PAIN

Examples:
Rheumatoid arthritis, osteoarthritis, gout

Pain related to ***damage* of peripheral or central nerves**

NEUROPATHIC PAIN

Examples:
Painful diabetic peripheral neuropathy, postherpetic neuralgia

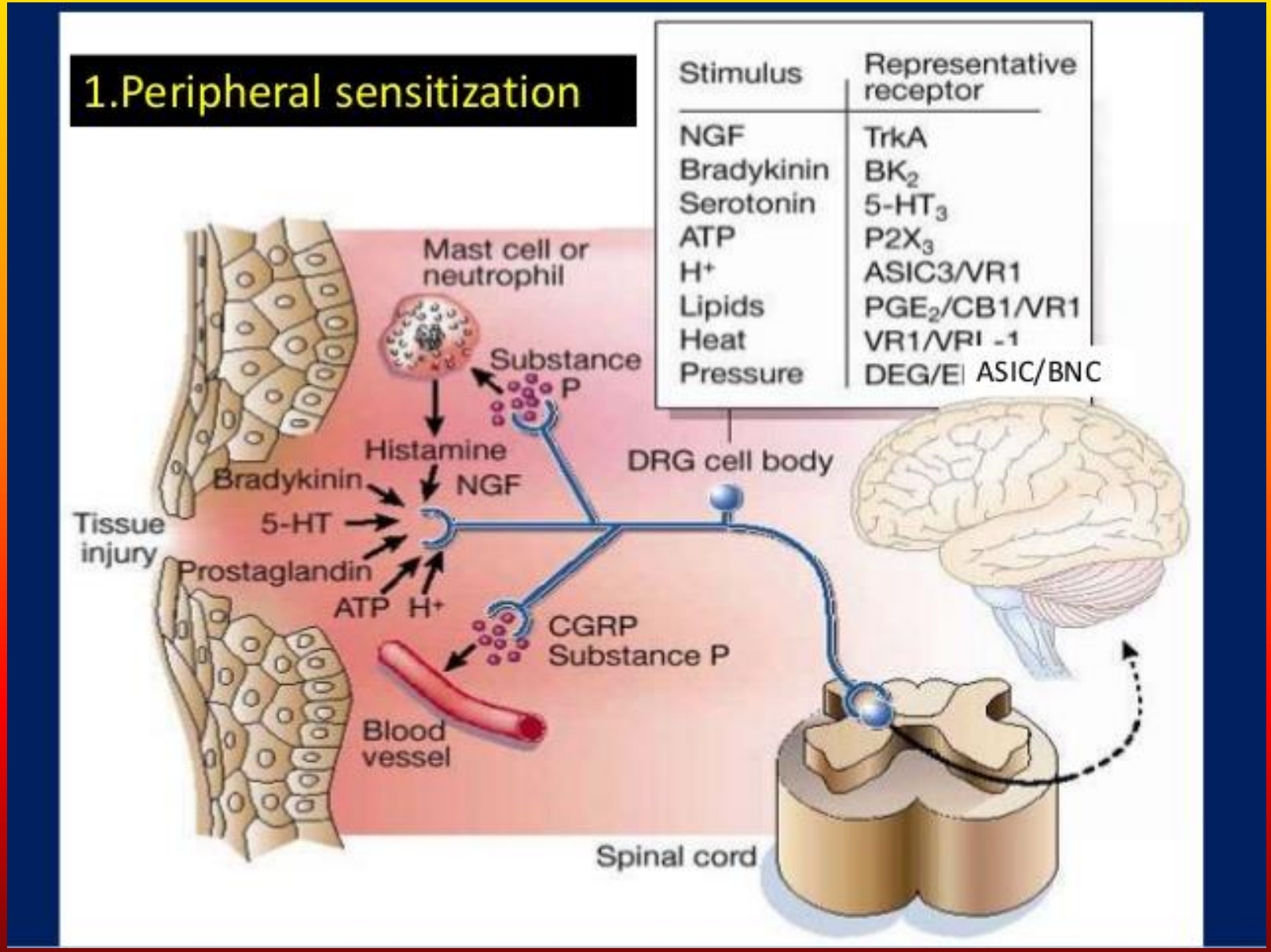
Pain ***without identifiable nerve or tissue damage,*** hypothesized to result from persistent neuronal dysregulation—may be called

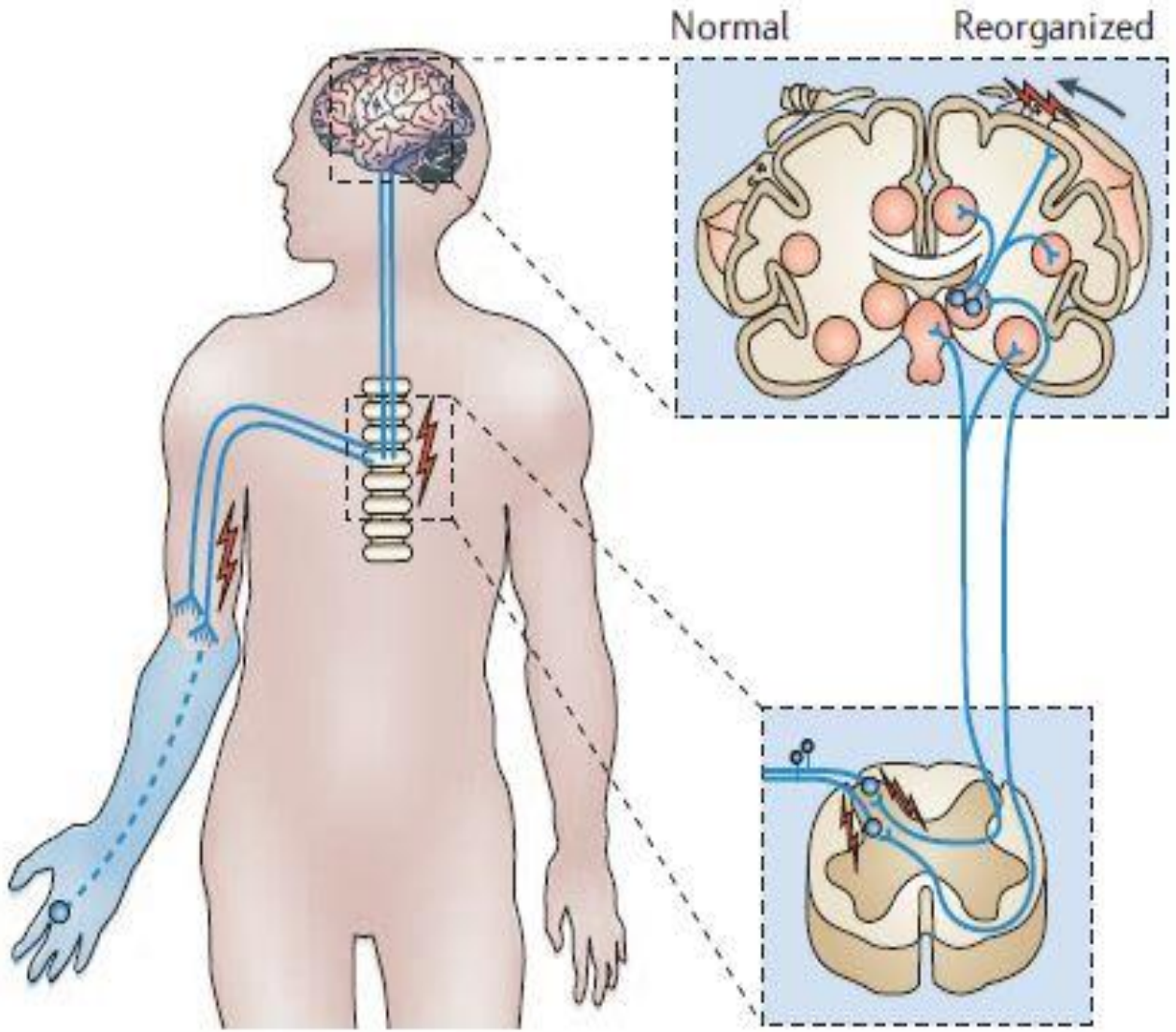
SENSORY HYPERSENSITIVITY

Example:
Fibromyalgia

More than 1 type of pain may be present in a given patient

1.Peripheral sensitization





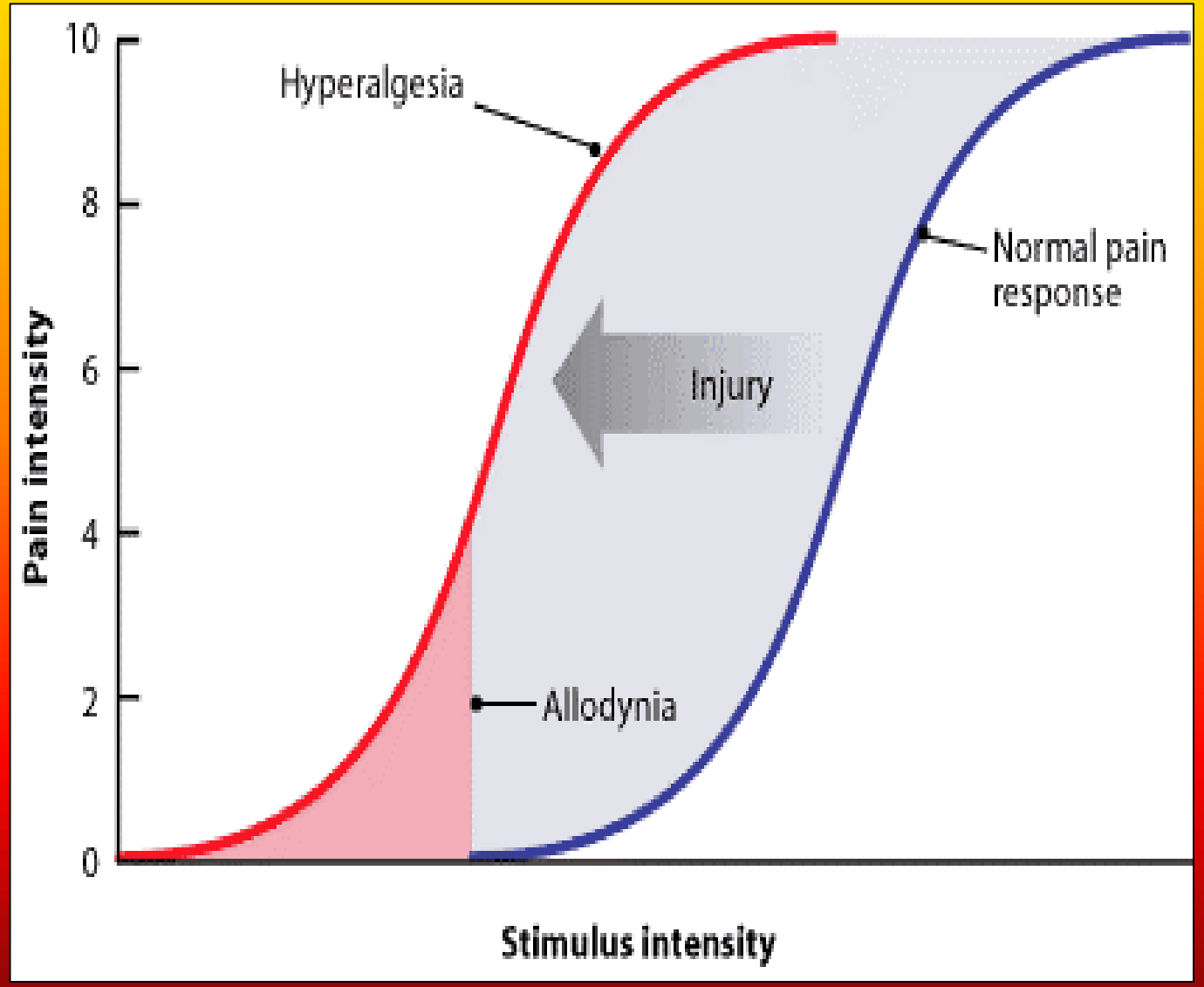
Central changes

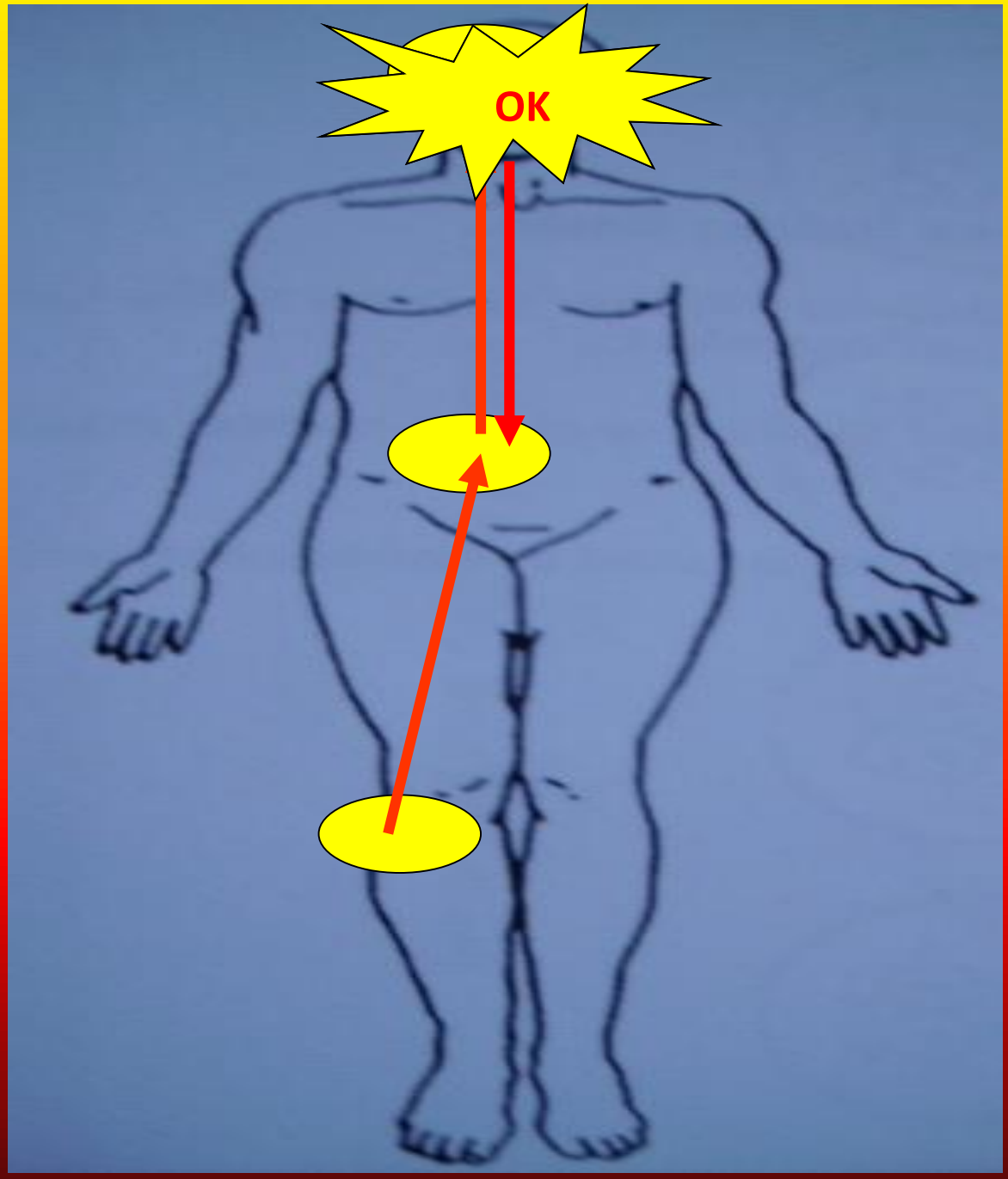
- Unmasking
- Sprouting
- General disinhibition
- Map remodelling
- Loss of neurons and neuronal function
- Denervation
- Alterations in neuronal and glial activity
- Sensory–motor and sensory–sensory incongruence

Peripheral changes

- Structural changes in neurons and axons
- Ectopic impulses
- Ephaptic transmission
- Sympathetic–afferent coupling
- Down- and upregulation of transmitters
- Alterations in channels and transduction molecules
- Selective loss of unmyelinated fibres

Cells that fire together wire together


10
8
6
4
2
0
Pain intensity
Hyperalgesia
Normal pain response
Injury
Allodynia
Stimulus intensity


OK

Danger in me

Things you hear, see ,smell, taste, touch

Things you do

Things you say

Things you believe

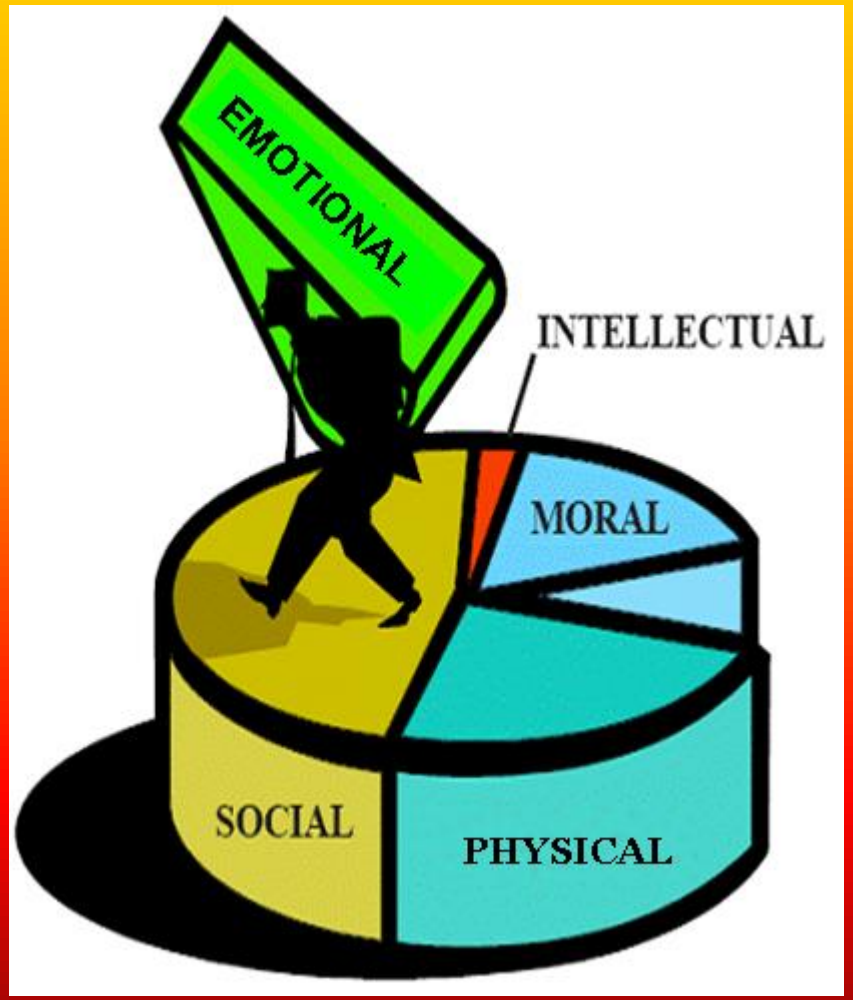
Places you go

People in your life

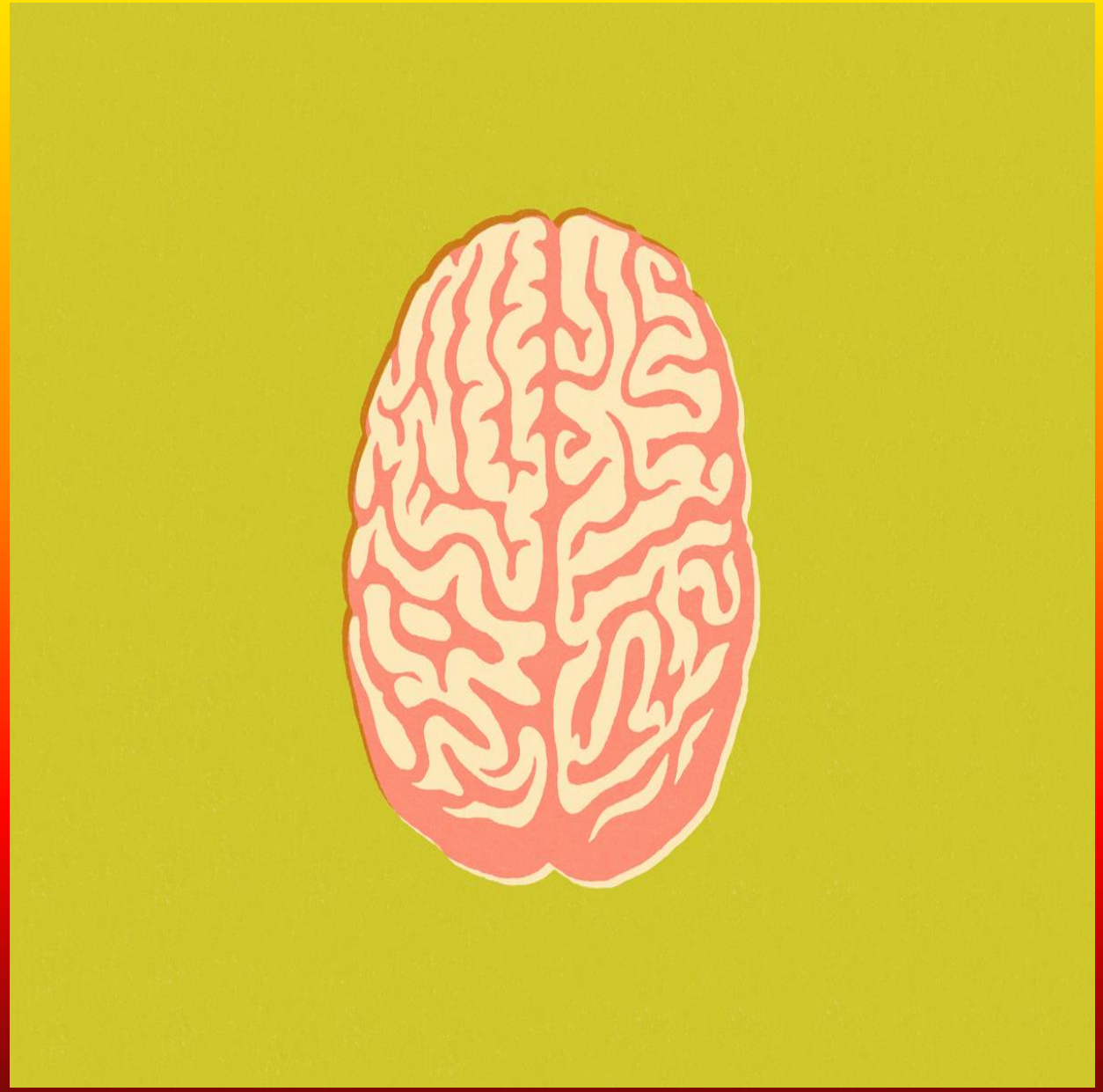
Things happening in your body

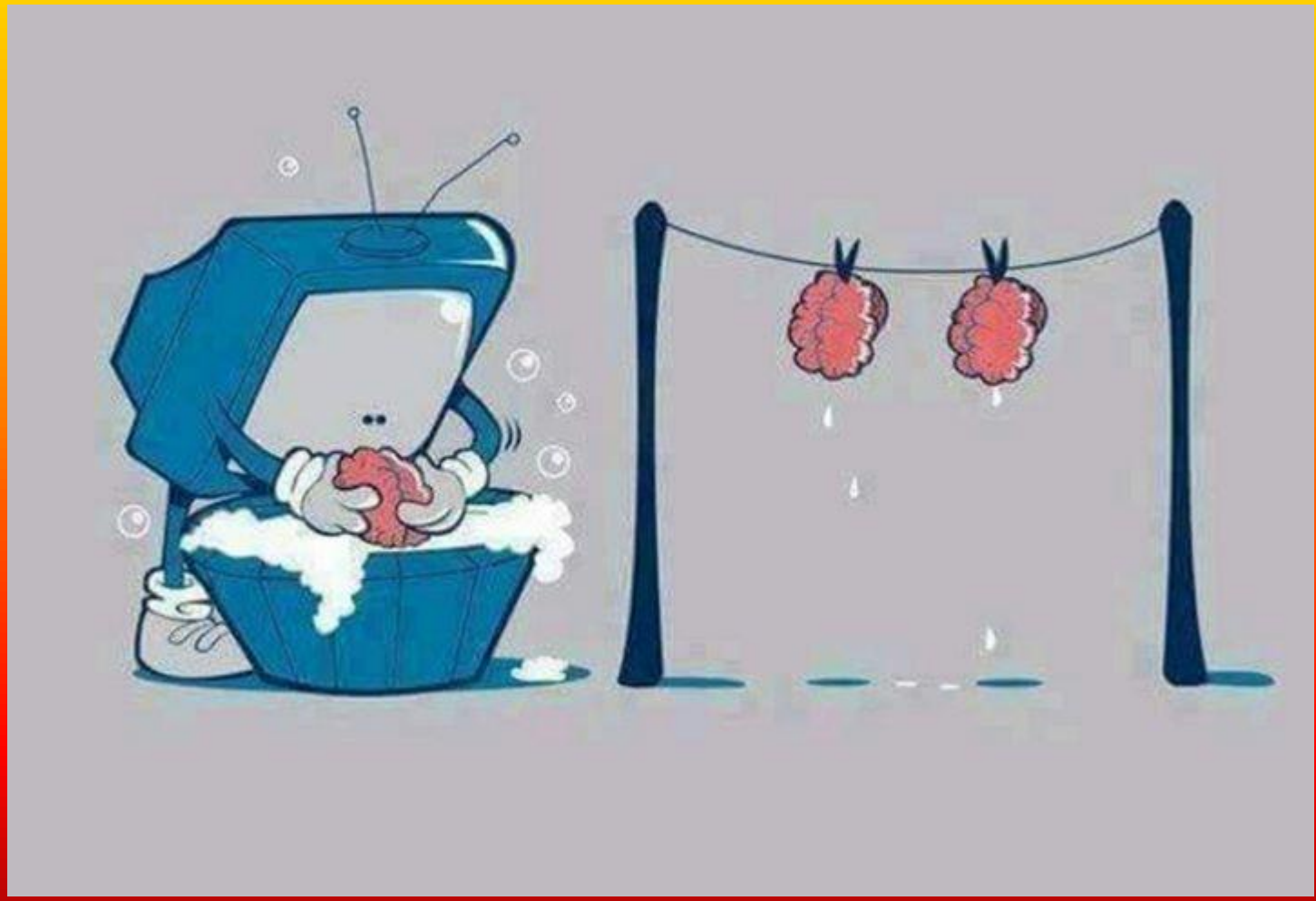
Safety in me

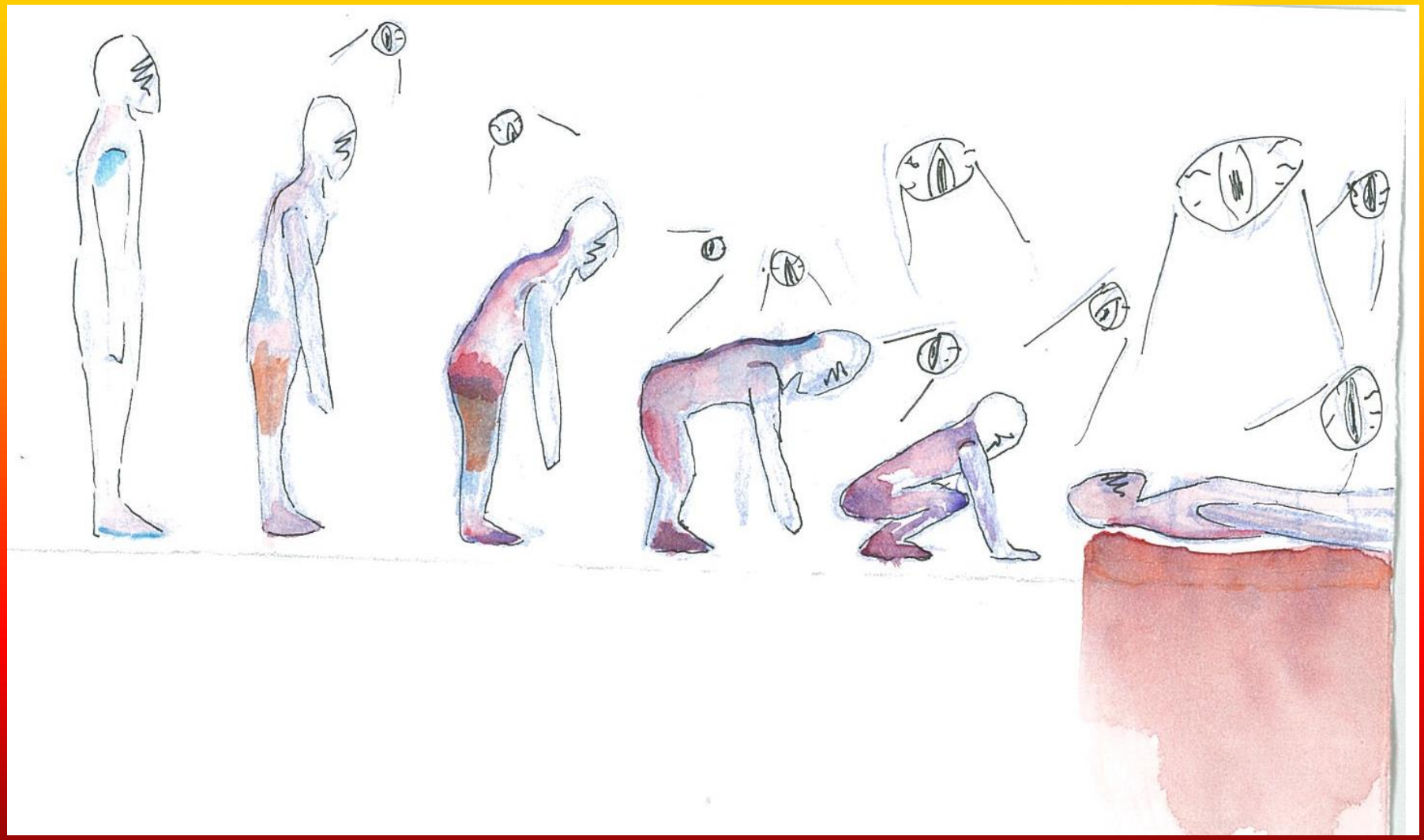

DON'T
BE
AFRAID


EMOTIONAL
INTELLECTUAL
MORAL
SOCIAL
PHYSICAL


Anger
Worry
Anxiety
Lonely
Fear
Embarrassed
Tired








FIRE
PULL
DOWN
Let's
compare
pain to a fire
alarm


Even though the alarm is **loud** and **unpleasant**, we are **thankful** that it saves our lives during a fire!

But what would happen if a fire-alarm *malfunctioned*, and became **too sensitive?**


Now the fire alarm
might turn on from
just one candle


A **hypersensitive**
fire-alarm would
turn on too often


It would
interrupt
birthday
parties

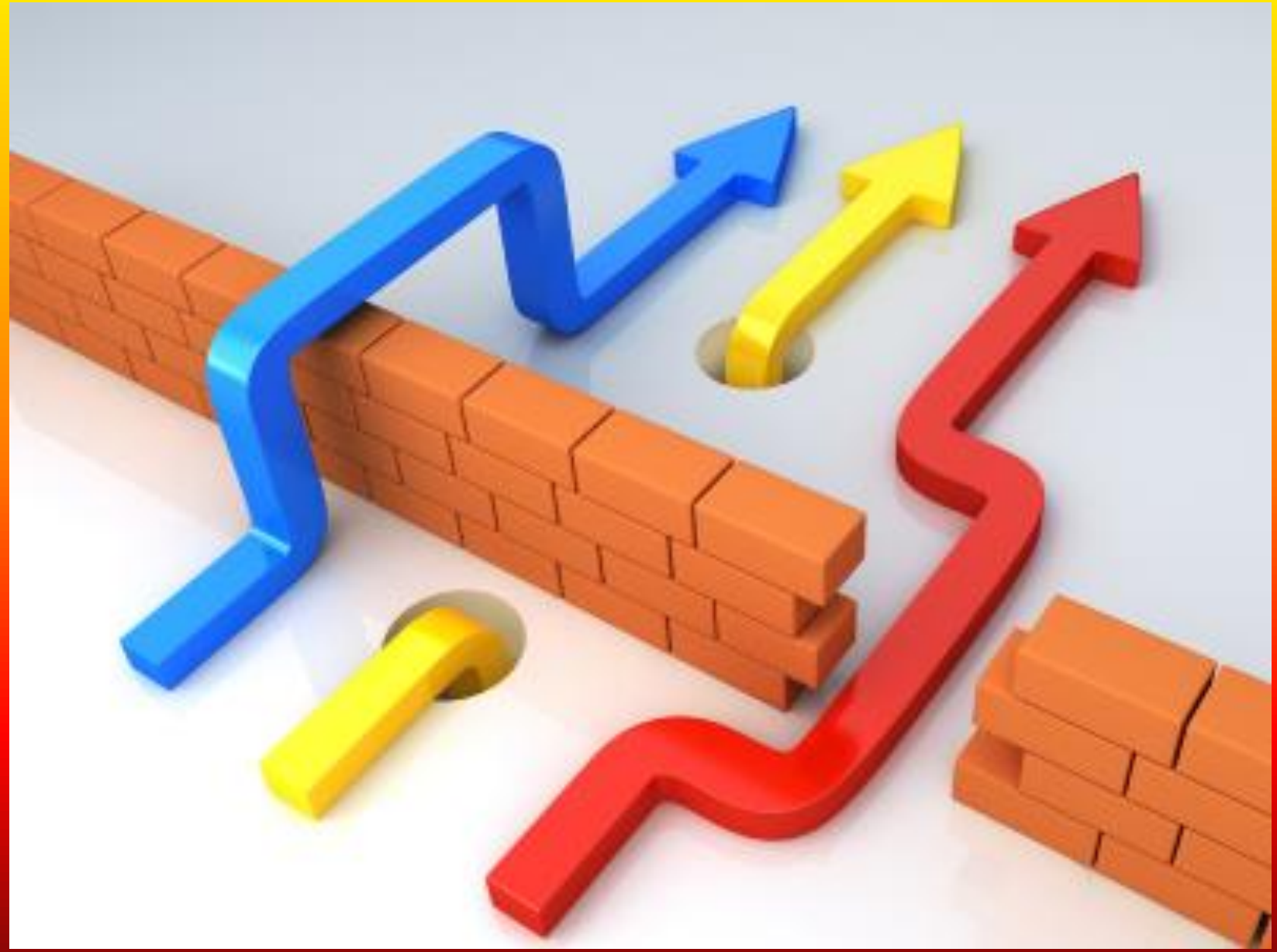

And romantic dinners

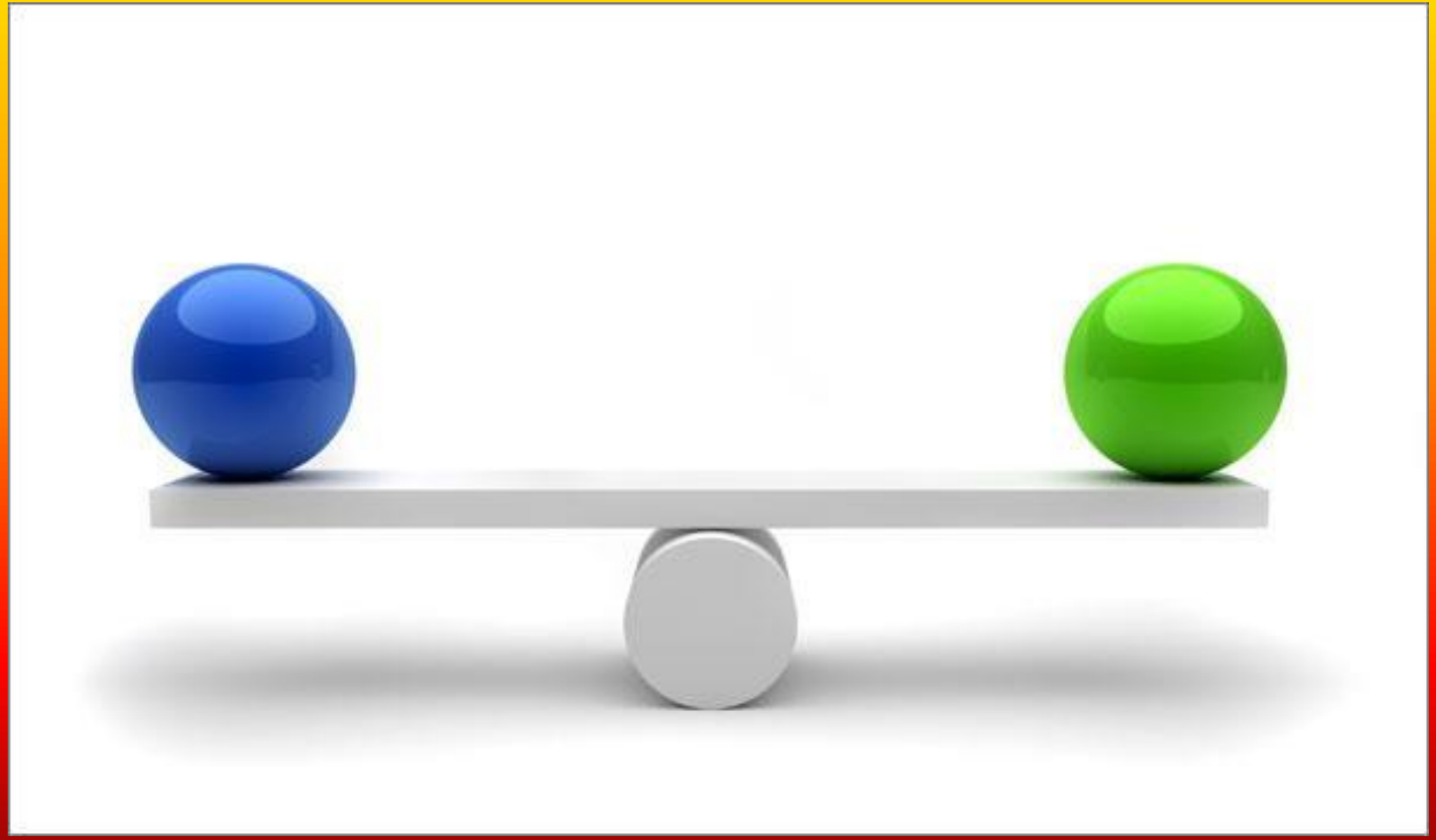
A hyper-sensitive alarm could even be triggered **randomly** (*without any smoke at all*)

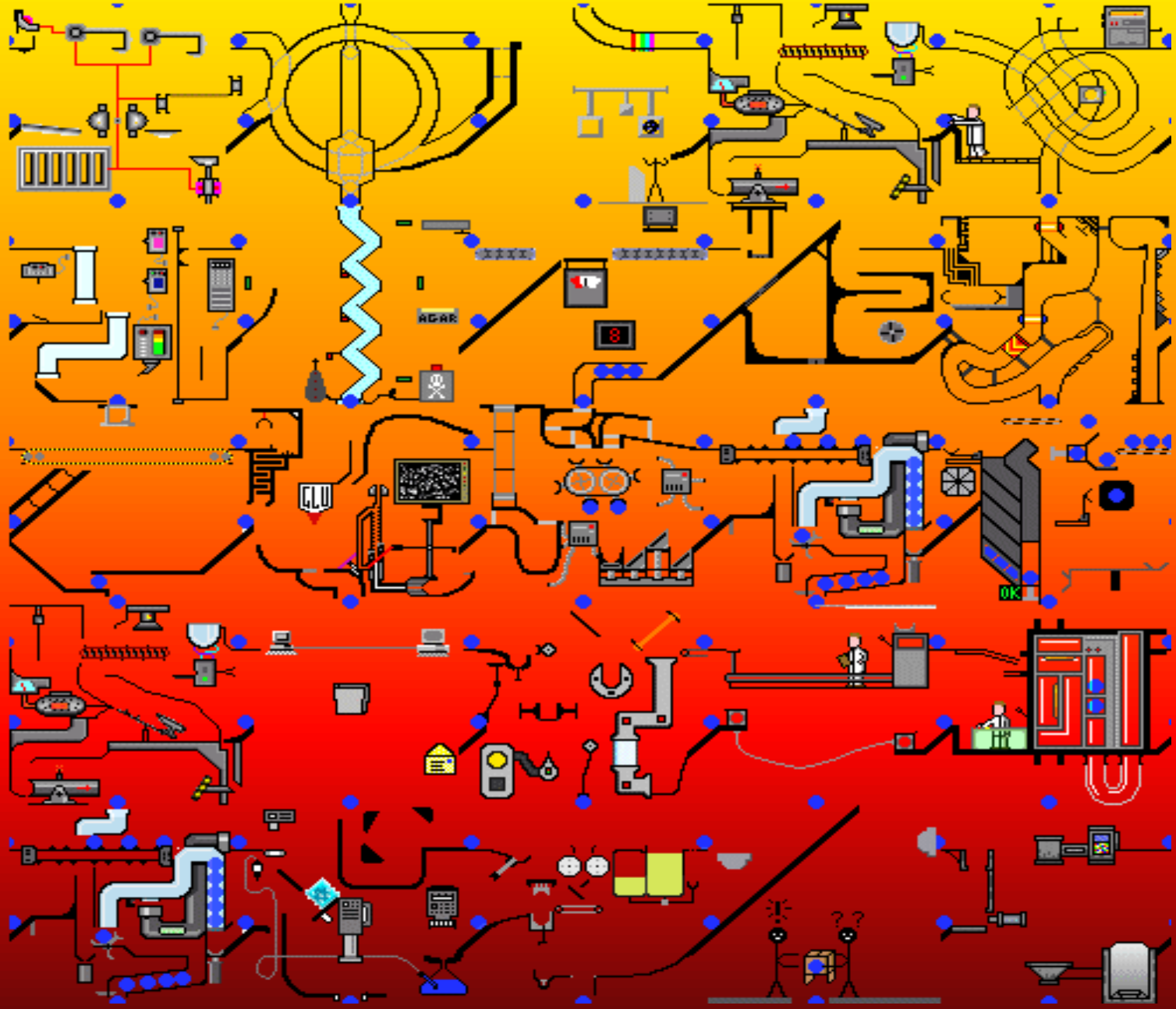

Firemen are experts at putting out fires, but you need a **different** set of skills for fixing an overly sensitive smoke alarm

There are no pain nerves, pain sensors, or pain fibres in the body.


HOSPITAL





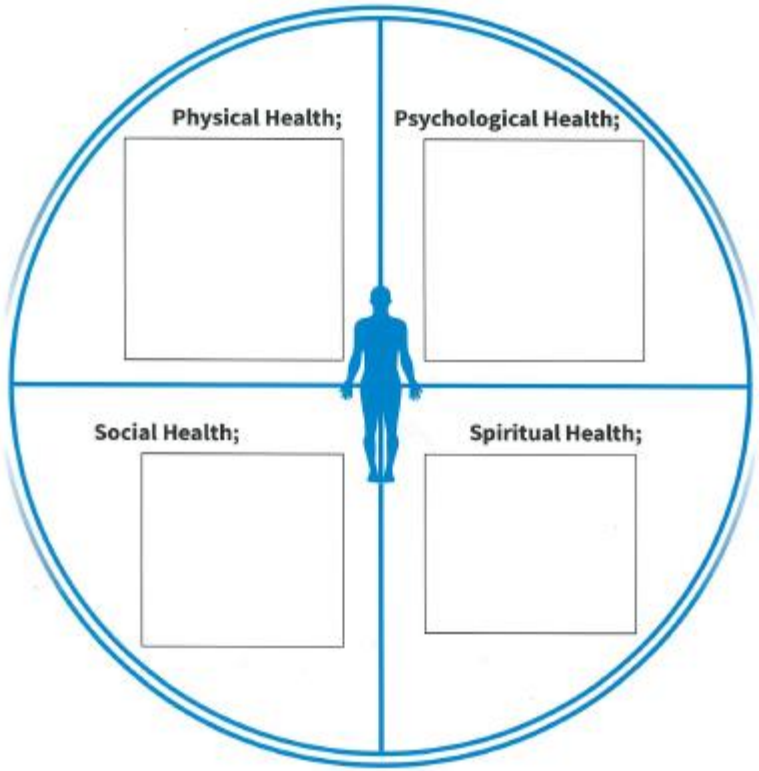

AGAR
8
CLU
OK

Attach Barcode here

Pain management patient planning

Patient goal/s for next month= _____

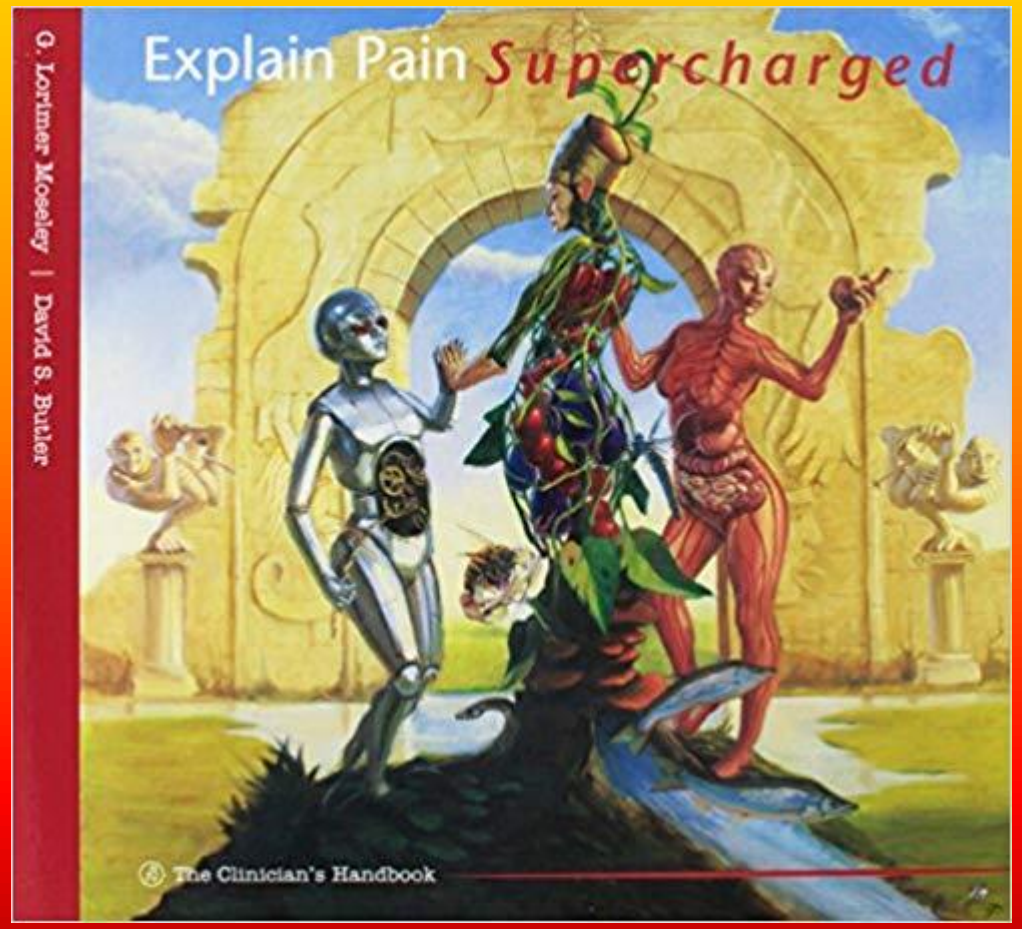
_____

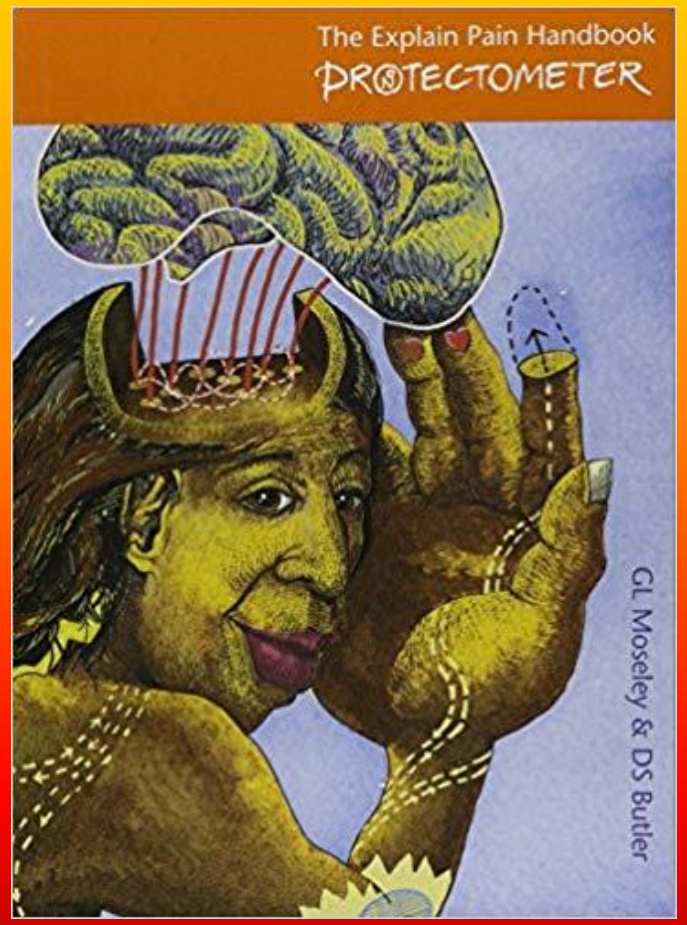


Name_____ **Signature**_____ **Date** _____

Te huarahi mo te matauranga
i tuaritia nga pukenga

The pathway to excellence is
achieved through sharing knowledge


G. Lorimer Moseley | David S. Butler
Explain Pain Supercharged
The Clinician's Handbook


The Explain Pain Handbook
PROTECTOMETER
GL Moseley & DS Butler

Useful websites to visit which provide multiple tools for assisting clinicians include

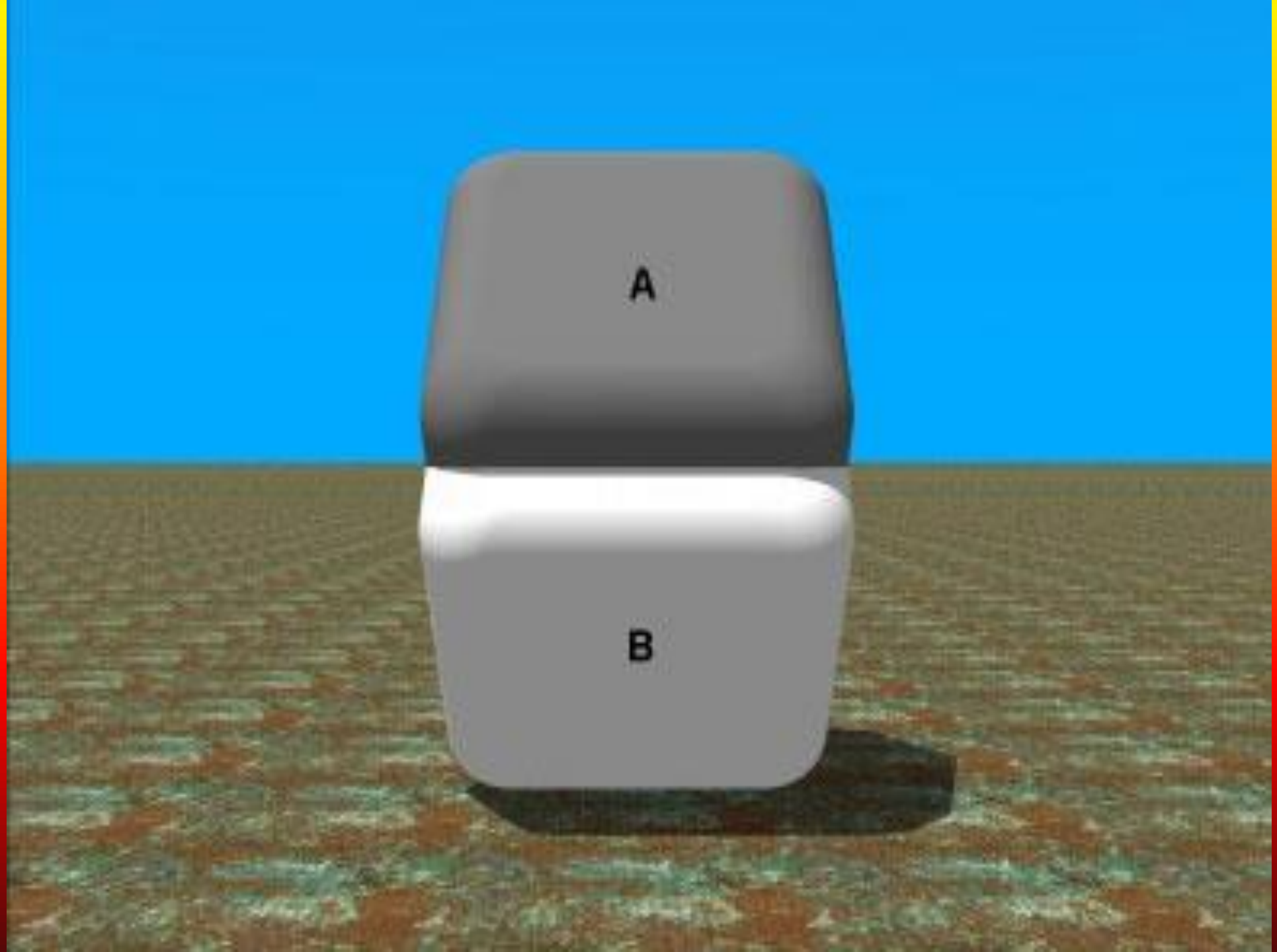
www.iasp-pain.org

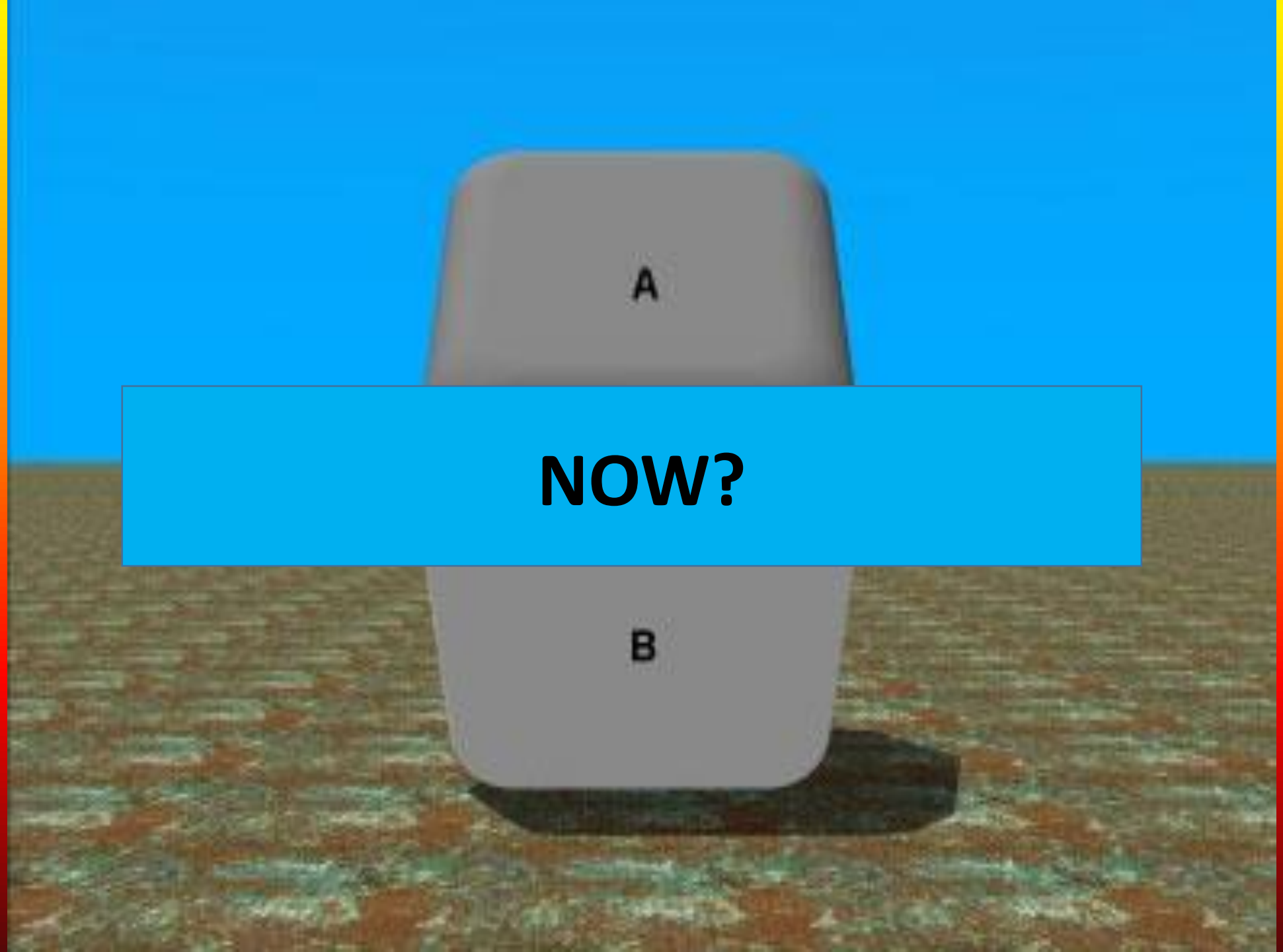
www.cochrane.org

www.emergingsolutionsinpain.com

Similarly a use website for persons experiencing persistent pain is

www.retrainpain.org


A
B


A
B
NOW?