CHRONIC PAIN: A CYCLE OF STRESS AND PAIN

NEUROSCIENCE EXPLAINS HOW STRESS CAN FUEL PERSISTENT PAIN

curable

STRESSES

Past injuries, accidents or health conditions

Relationships (family, romantic)

Work

Anxiety

Sadness or Grief

Anger

Childhood adversity

Unresolved painful memories

PTSD

Social isolation or rejection

Discrimination

and many more

STRESSES (FROM PAIN)

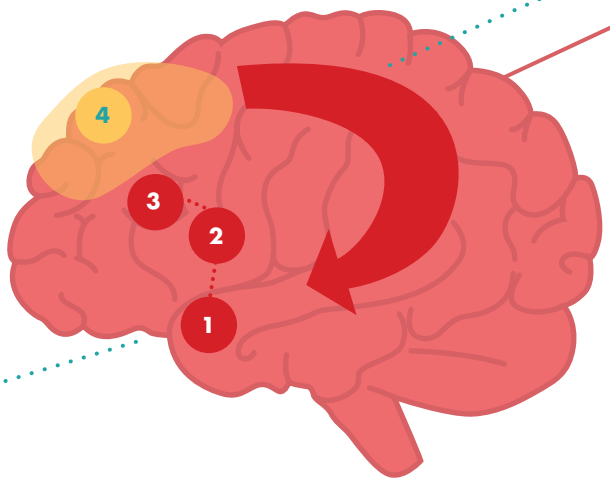
Sensitized nervous system

Fear, worry & anticipation of pain

Associating the pain with some catastrophic health issue

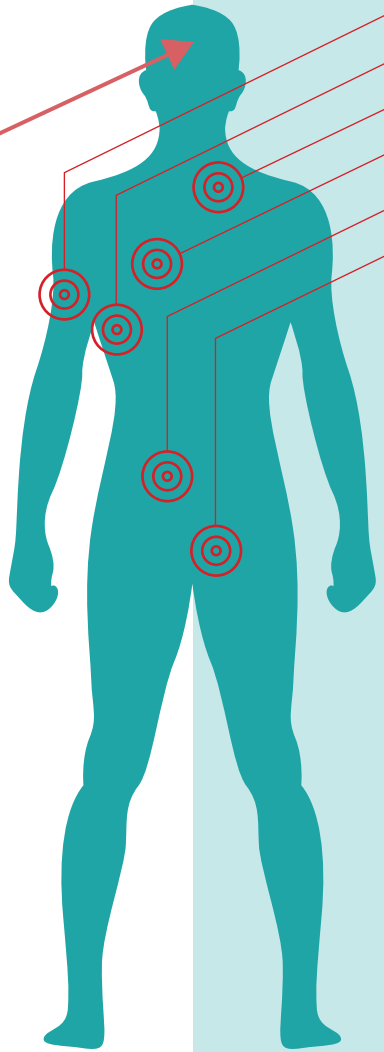
WHAT THE BRAIN TELLS THE BODY TO DO WHEN IT'S STRESSED

Blood flow shifts from the frontal lobes (conscious way of thinking) into the limbic system (emotional, reacting, "fight or flight" part of the brain – the **amygdala** & **ANS**)



HOW STRESSES ARE PROCESSED AND STORED IN THE "PAIN PARTS" OF THE BRAIN

1. **AMYGDALA** Sends signals to activate the ANS; activating fight or flight signals
2. **ANS (Autonomic Nervous System)** Can cause acute spasms and other physiological changes anywhere in the body
3. **ACC (Anterior Cingulate Cortex)** Emotional factors light up this area; when activated, DLPFC turns off
4. **DLPFC (Dorsolateral Prefrontal Cortex)** An area of the brain that helps to decrease pain



WHAT'S AFFECTED?

- Muscles
- Blood flow
- Nervous system
- Heart
- Gastrointestinal system
- Genito-urinary system

YOU MAY FEEL:

- Pain almost anywhere in the body
- Tingling
- Numbness
- Burning
- IBS & bladder symptoms
- Palpitations
- Rapid heart rate
- Headaches & migraines

THE NERVOUS SYSTEM CAN "LEARN" TO FEEL THESE SENSATIONS

As this cycle repeats, the brain and central nervous system can become wired to make the body feel continuous pain... often times even in the absence of structural or tissue damage

PAIN & LEARNING BY THE NERVOUS SYSTEM RETURN AS STRESSES

LEARN HOW TO BREAK THE PAIN CYCLE WITH THE **CURABLE APP** curable