

PAIN AND ITS THEORIES



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ICON

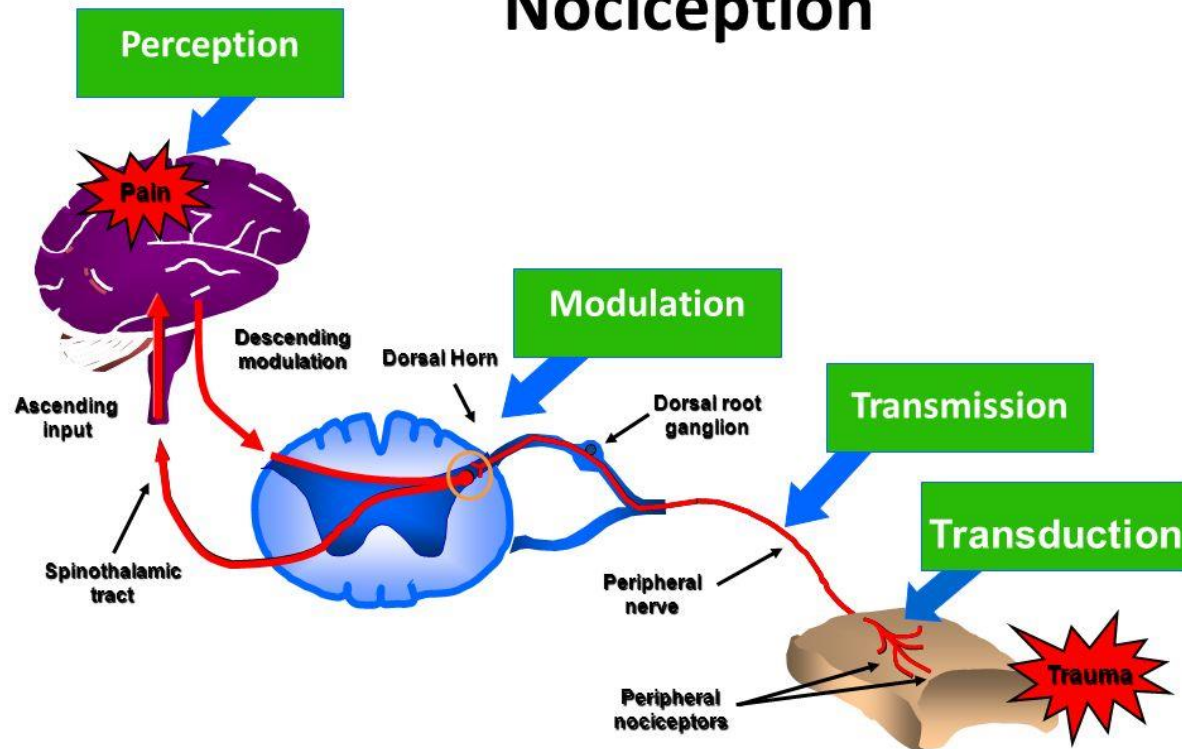
PAIN

Pain as "an unpleasant sensory and emotional experience associated with actual or potential tissue damage, or described in terms of such damage. In medical diagnosis, pain is regarded as a symptom of an underlying condition.

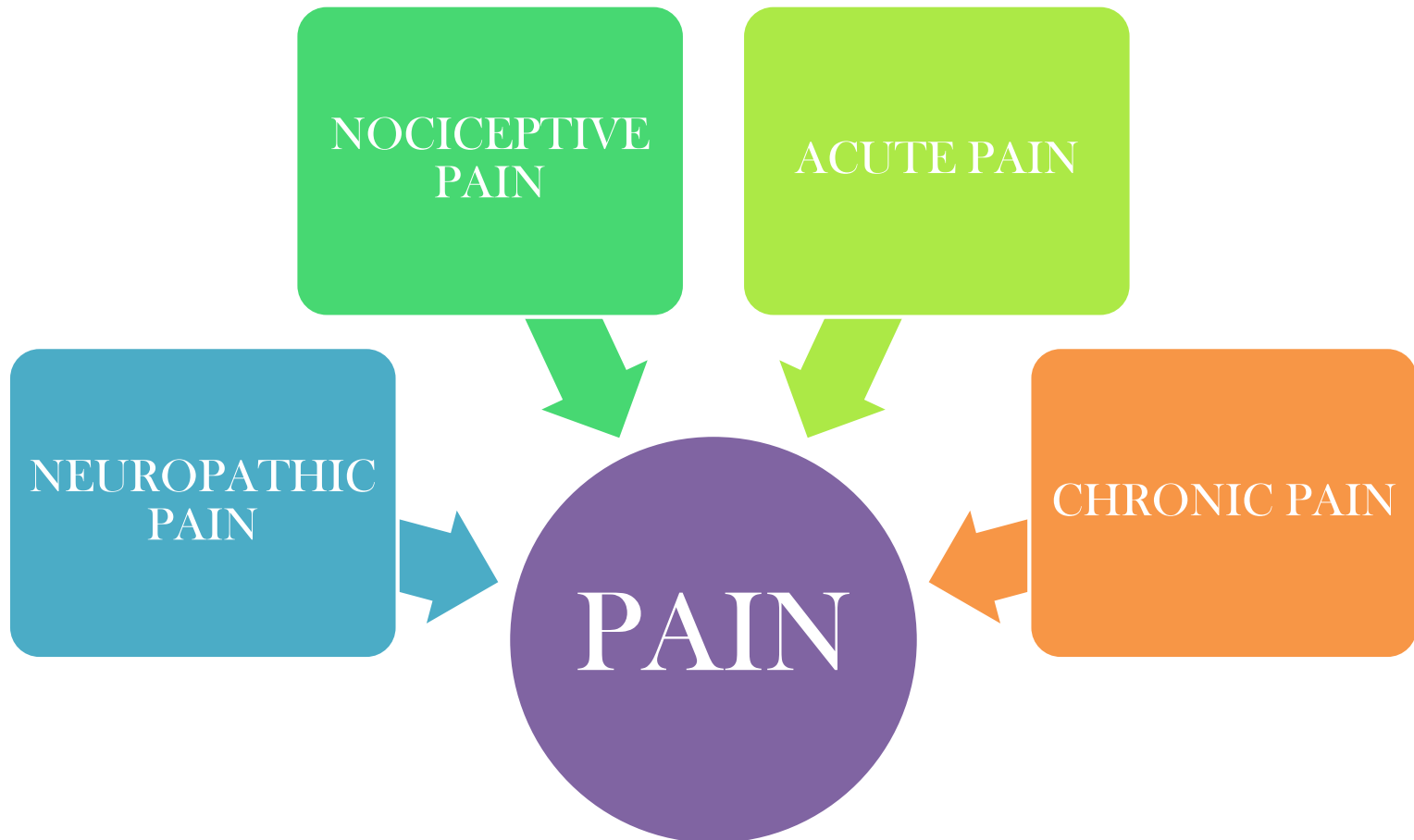
-International Association for the Study of Pain

MECHANISM OF PAIN

Nociception



PAIN CLASSIFICATION



Assessment of Pain

WHAT'S UP FORMAT

- W -where is the pain?
- H -how does the pain feel?
- A -aggravating and alleviating factors.
- T -timing.
- S -severity.
- U -useful other data.
- P -perception.

PQRST

- P -provoked
- Q-quality
- R -region/radiation
- S -severity
- T -timing

OLDCART

- O-onset pain
- L -location
- D -duration
- C -characteristic
- A -aggravating factors
- R -radiation
- T -treatment

Wong-Baker faces pain rating scale



0

No hurt



2

Hurts
little bit



4

Hurts little
more



6

Hurts
even
more



8

Hurts
whole lot



10

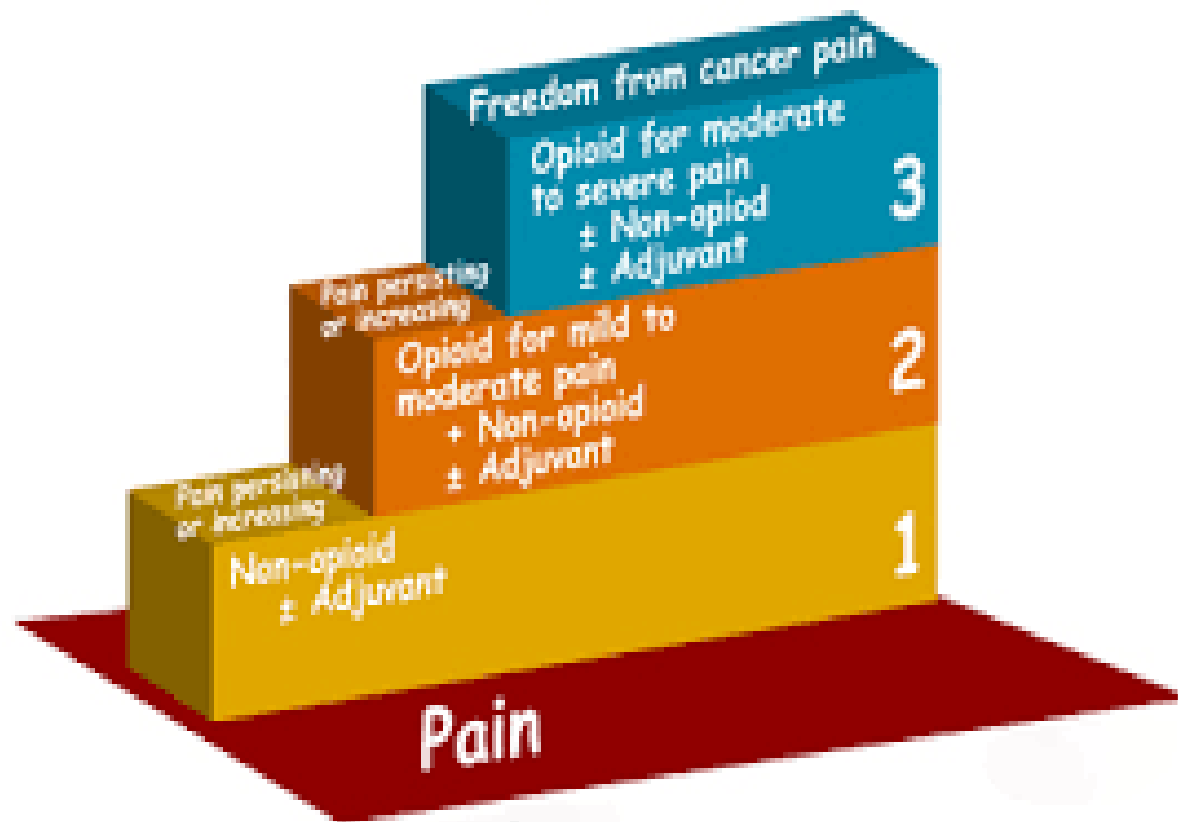
Hurts
worst

MANAGEMENT

A decorative graphic consisting of a solid red horizontal bar that transitions into a white background. On the right side, there are several thin, parallel red lines of varying lengths, creating a stepped or layered effect.

PHARMACOLOGICAL MANAGEMENT

WHO Three-Step Analgesic Ladder



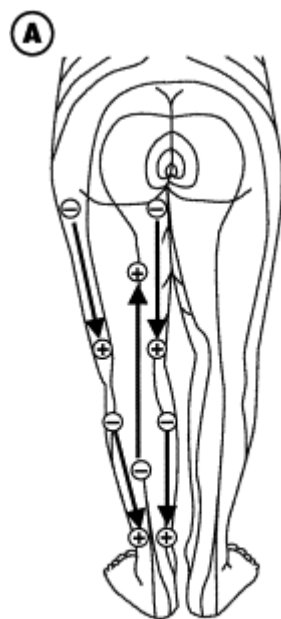
Non-Pharmacological Management

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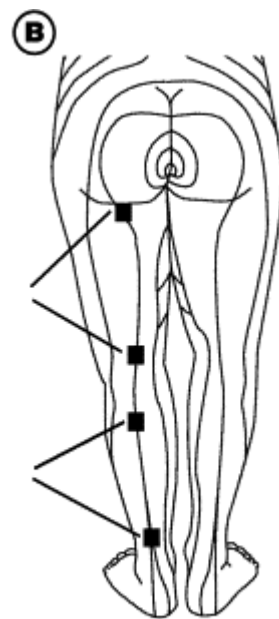
Cryotherapy



TENS And PENS



**PENS and Sham-PENS
Needle Locations**

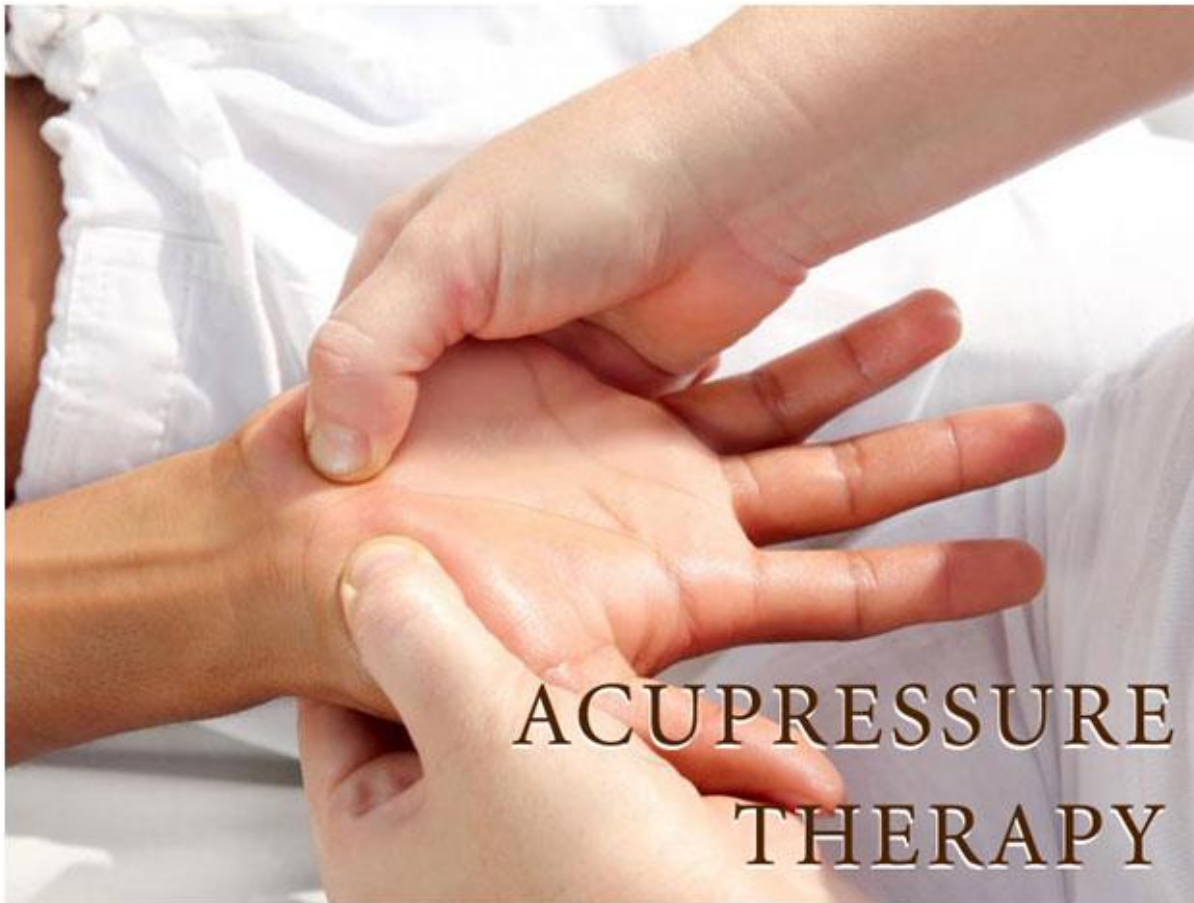


Location of TENS Pads

Acupuncture



Acupressure



Massage Therapy



Mobilization



THEORIES OF PAIN

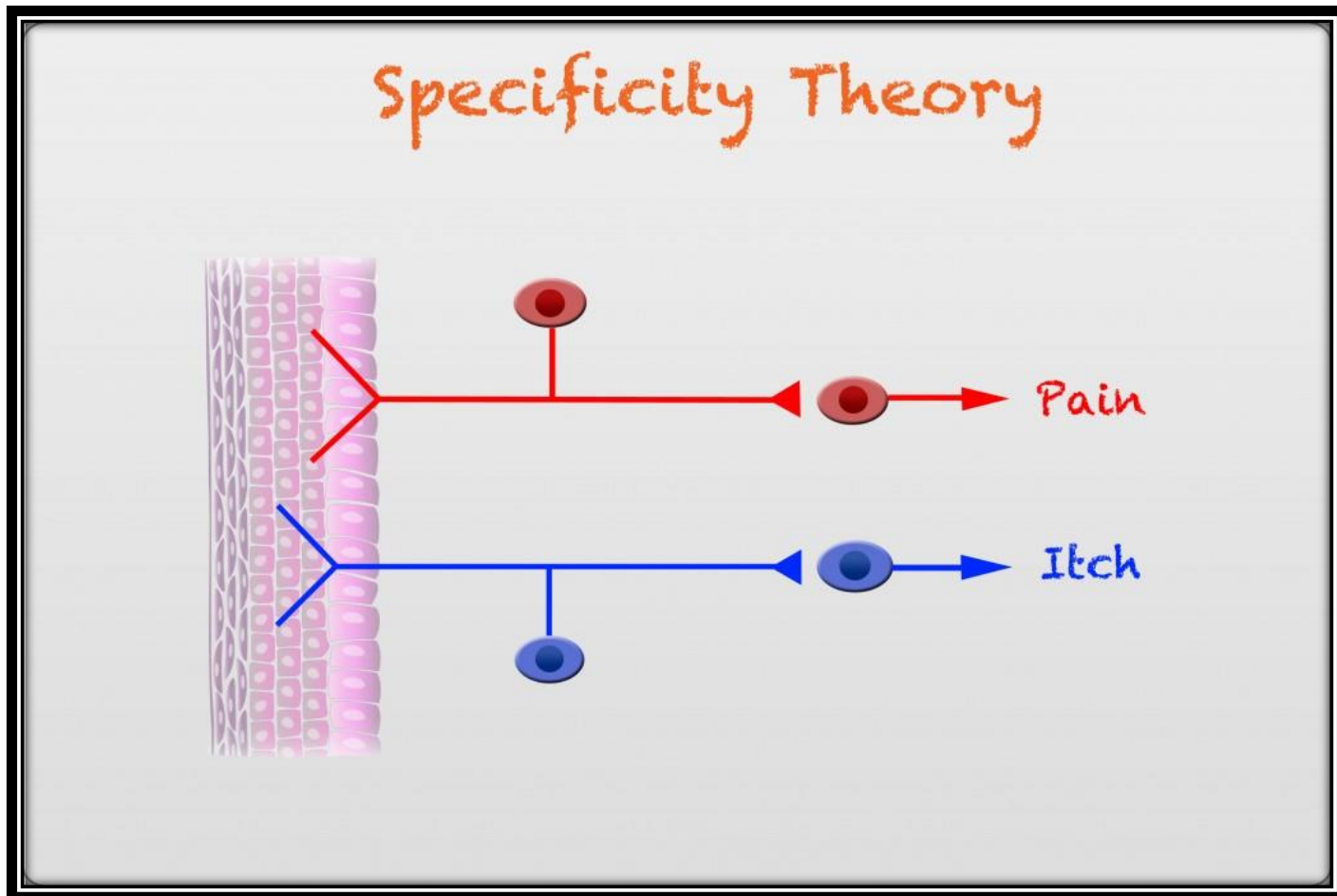
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- Intensive theory
 - Specificity theory
 - Strong's theory
 - Pattern theory
 - Central summation theory
 - Fourth theory of pain
 - Sensory interaction theory
 - Gate control theory

Intensive Theory (Erb, 1874)

- First, conceptualized in the fourth century BCE by Plato in his oeuvre *Timaeus* (Plato 1998),
- the theory defines pain, not as a unique sensory experience but rather, as an emotion that occurs when a stimulus is stronger than usual.
- This theory is based on Aristotle's concept that pain resulted from excessive stimulation of the sense of touch.
- Both stimulus intensity and central summation are critical determinants of pain.
- It was implied that the summation occurred in the dorsal horn cells.

SPECIFICITY THEORY



The Fourth Theory of Pain

It stated that pain was composed of two components: the perception of pain and the reaction one has towards it. The reaction was described as a complex physiopsychological process involving cognition, past experience, culture and various psychological factors which influence pain perception.

Sensory Interaction Theory (Noordenbos, 1959)

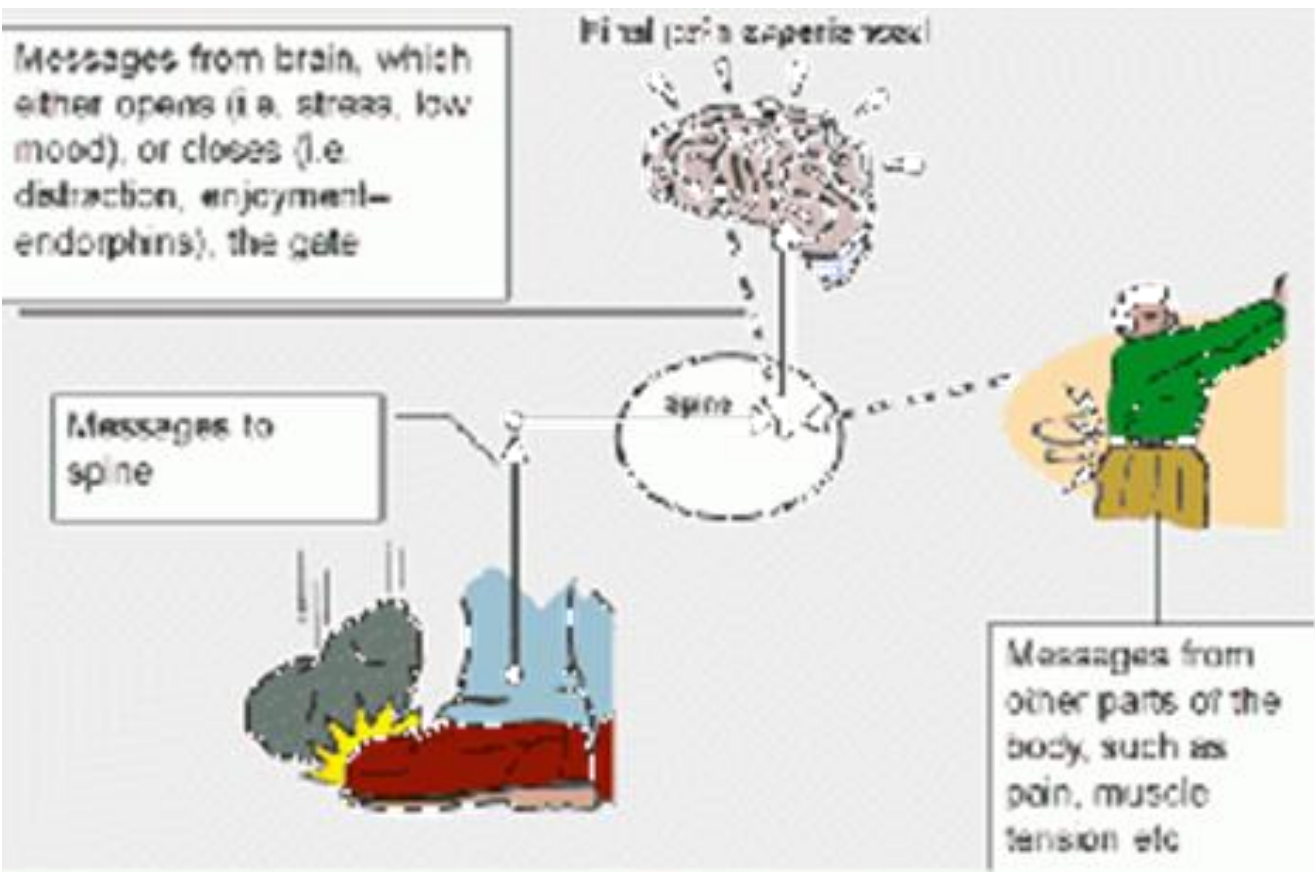
It describes two systems involving transmission of pain: fast and slow system. The later presumed to conduct somatic and visceral afferents whereas the former was considered to inhibit transmission of the small fibers.


Gate Control Theory

(Melzack and Wall, 1965)

Melzack has proposed a theory of pain. According to his theory, pain stimulation is carried by small, slow fibers that enter the dorsal horn of the spinal cord; then other cells transmit the impulses from the spinal cord up to the brain.

- These fibers are called T-cells. The T-cells can be located in a specific area of the spinal cord, known as the substantial gelatinosa. These fibers can have an impact on the smaller fibers that carry the pain stimulation.





In some cases they can inhibit the communication of stimulation, while in other cases they can allow stimulation to be communicated into the central nervous system. For example, large fibers can prohibit the impulses from the small fibers from ever communicating with the brain.

- In this way, the large fibers create a hypothetical "gate" that can open or close the system to pain stimulation. According to the theory, the gate can sometimes be overwhelmed by a large number of small activated fibers. In other words, the greater the level of pain stimulation, the less adequate the gate in blocking the communication of this information.