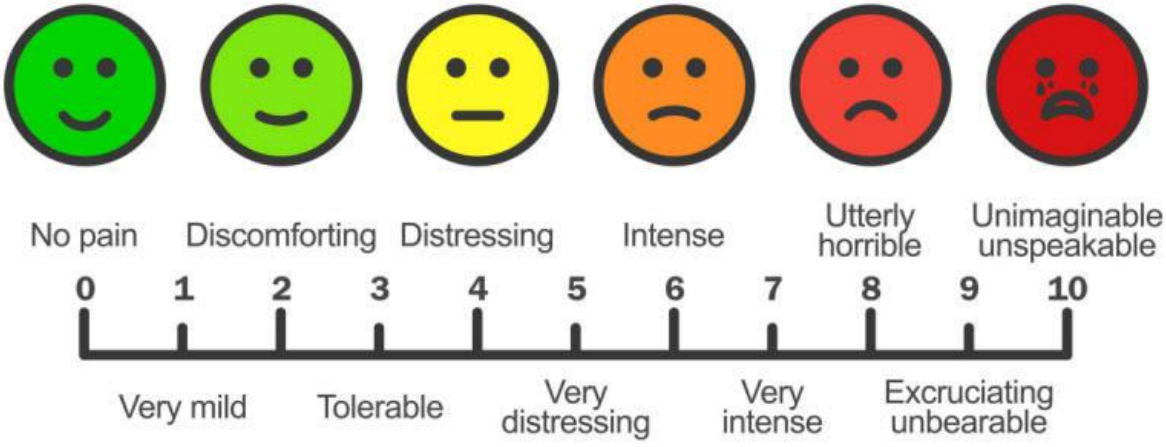
PAIN AND HOMOEOPATHY



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PAIN AND HOMOEOPATHY

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DEFINITION

Pain is an unpleasant sensation (Psora) associated with actual or possible tissue damage (Syphilis), and mediated by specific nerve fibers to the brain where its conscious appreciation may be modified by various factors (Psora). It may be generalized or confined to a part of the body.

ETYMOLOGY

Derived from Latin word - "Poena" meaning punishment from God. Homer thought pain was due to arrows shot by God. Aristotle, who probably was the first to distinguish five physical senses considered pain to the "passion of the soul" that somehow resulted from the intensification of other sensory experience. Plato contented, pain and pleasure arose from within the body, an idea that perhaps gave birth to the concept that pain is an emotional experience more than a localized body disturbance. The Bible refers to pain not only in relationship to injury and illness but also an anguish of the soul.

Hippocrates used Willow bark & leaves. Salicylic acid in willow plant of genus Salix is the active ingredient of ASPIRIN. Coca cola was initially sold as a cure for pain, concept of using cocaine as a pain reliever. Queen Victoria was the first one to have anaesthesia for pain control during childbirth, chloroform was used.

SYMPTOMS

Any pain of moderate or higher intensity is accompanied by-

- Anxiety (Psora)
- Terminate the feeling
- Urge to escape

Pain is of dual nature. It is both sensation and emotion. When acute, pain is characteristically associated with-

- Behavioral arousal (Psora)
- Stress response (Psora)
    - Increased blood pressure (Psora/ Sycosis)
    - Increased heart rate (Psora)
    - Increased pupil diameter (Psora)
    - Increased plasma cortisol levels (Psora/ Sycosis)
- Local muscle contraction
    - e.g., limb flexion or abdominal wall rigidity (Psora)

ANATOMY OF PAIN

Pain receptors

A peripheral nerve consists of the axons formed by three different types of neurons-

- Primary sensory afferent
- Secondary motor efferent
- Sympathetic postganglionic neurons

Primary sensory afferent

The cell bodies of primary afferents are located in the dorsal root ganglia in the vertebral foramina. The primary afferent axon diverges to send one process into the spinal cord and the other to innervate tissues.

These fibers are present in nerves to the skin and to deep somatic and visceral structures. Some tissues, such as the cornea, are innervated only by A-delta and C- afferents. Most A-delta and C- afferents respond maximally only to intense painful stimuli and produce the subjective experience of pain when they are electrically stimulated. This defines them as primary afferent nociceptors. The ability to detect painful stimuli is completely abolished when A-delta and C- axons are blocked.

These individual primary afferent nociceptors can respond to several different types of noxious stimuli. For example, most nociceptors respond to heating, intense mechanical stimuli such as a pinch, and application of irritating chemicals.

Secondary motor efferent

The nerves that carry signals away from the central nervous system in order to initiate an action are called efferent neurons.

Sympathetic postganglionic neurons

There are two kinds of neurons involved in the transmission of any signal through the sympathetic system: pre-ganglionic and post-ganglionic. ... At the synapses within the ganglia, preganglionic neurons release acetylcholine, a neurotransmitter that activates nicotinic acetylcholine receptors on postganglionic neurons.

PHYSIOLOGY OF PAIN

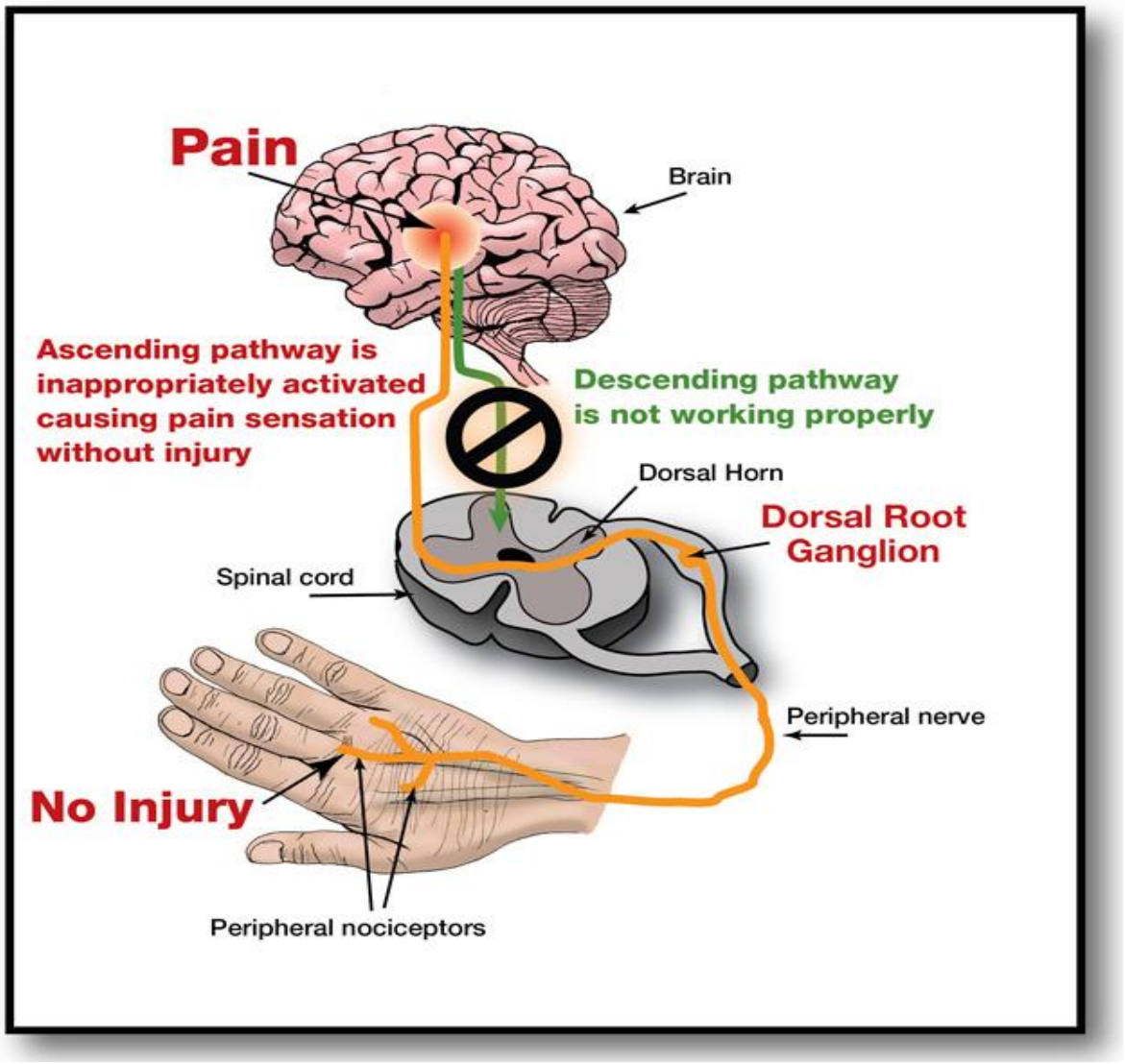
Sensitization

When intense, repeated, or prolonged stimuli are applied in the presence of damaged tissue or inflammation, the threshold for activating primary afferent nociceptors is lowered and the frequency of firing is higher for all stimulus intensities (Psora/ Syphilis). Inflammatory mediators such as bradykinin, some prostaglandins, and leukotrienes contribute to this process, which is called sensitization (Psora).

In sensitized tissues, usually harmless stimuli can produce pain (Psora). Sensitization is a clinically important process that contributes to tenderness, soreness, and hyperalgesia (Psora). A striking example of sensitization is sunburned skin, in which severe pain can be produced by a gentle blow on the back or a warm shower.

Normally, viscera are relatively insensitive to noxious mechanical and thermal stimuli. Hollow viscera feel significant discomfort when distended. Also, when affected by an inflammatory disease, deep structures such as joints or hollow viscera characteristically become superbly sensitive to mechanical stimulation.

A large proportion of A-delta and C- afferents innervating viscera are completely insensitive in normal non-injured, noninflamed tissue. That is, they cannot be activated by mechanical or thermal stimuli and are not naturally active. However, in the presence of inflammatory mediators, these afferents become sensitive to mechanical stimuli. Such afferents have been termed silent nociceptors. Their characteristic properties lead to development of severe and debilitating pain and tenderness, because under pathologic conditions, the relatively insensitive deep structures can become the source of pain.



Nociceptor-Induced Inflammation

Afferent nociceptors also have a neuroeffector function. Most nociceptors contain polypeptide mediators that are released from their peripheral terminals when they are activated. Substance P, an 11-amino-acid peptide is such a mediator. Substance P is released from primary afferent nociceptors and has multiple biologic activities.

It is a strong vasodilator and degranulates mast cells. It is a chemo attractant for leukocytes, and increases the production and release of inflammatory mediators. Depletion of substance P from joints reduces the severity of arthritis. Primary afferent nociceptors are not simply passive messengers of threats to tissue injury but also play an active role in tissue protection through these neuroeffector functions.

Central pathways for pain

The axons of primary afferent nociceptors enter the spinal cord via the dorsal root. They terminate in the dorsal horn of the spinal gray matter.

The terminals of primary afferent axons contact spinal neurons that transmit the pain signal to brain sites involved in pain perception. The axon of each primary afferent contacts many spinal neurons, and each spinal neuron receives convergent inputs from many primary afferents.

Ascending Pathways for Pain

A majority of spinal neurons contacted by primary afferent nociceptors send their axons to the contralateral thalamus.

These axons form the contralateral spinothalamic tract which lies in the anterolateral white matter of the spinal cord, the lateral edge of the medulla, and the lateral pons and midbrain. The spinothalamic pathway is crucial for pain sensation in humans. Interruption of this pathway produces permanent deficits in pain and temperature discrimination.

Neural processing of pain signals

Several steps can be identified in the neural processing of noxious signals that can lead to the experience of pain.

Transduction

Transduction is the process by which noxious stimuli are converted to electrical signals in the nociceptors. Nociceptors readily respond to different noxious modalities such as thermal, mechanical or chemical stimuli, but nociceptors do not respond to non-noxious stimuli. Also in contrast to other types of sensory receptors, nociceptors do not adapt.

Transmission

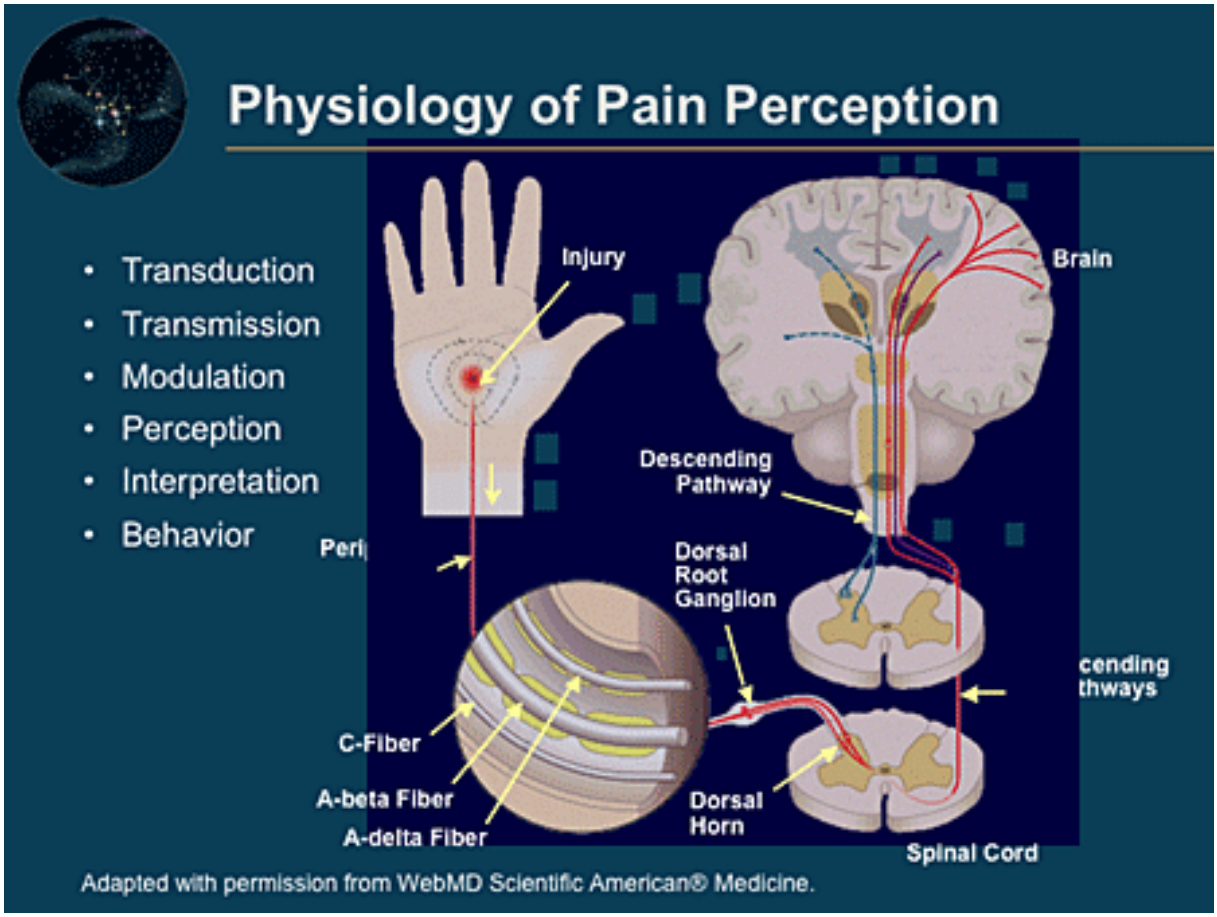
Transmission is the second stage of processing of noxious signals. Information from the periphery is relayed to the spinal cord, then to the thalamus, and finally to the cortex.

Modulation

Modulation is a third and critically important aspect of the processing of noxious stimuli. This process represents changes that occur in the nervous system in response to noxious stimuli and allows noxious signals received at the dorsal horn of the spinal cord to be selectively inhibited so that the transmission of the signal to higher centers is modified.

Descending modulatory systems

Activation of the descending system by endorphins occurs through specific receptors called ‘‘opioid eceptors.’’ These systems are activated in and around the periaqueductal gray (PAG) region of the midbrain.



CLASSIFICATION OF PAIN

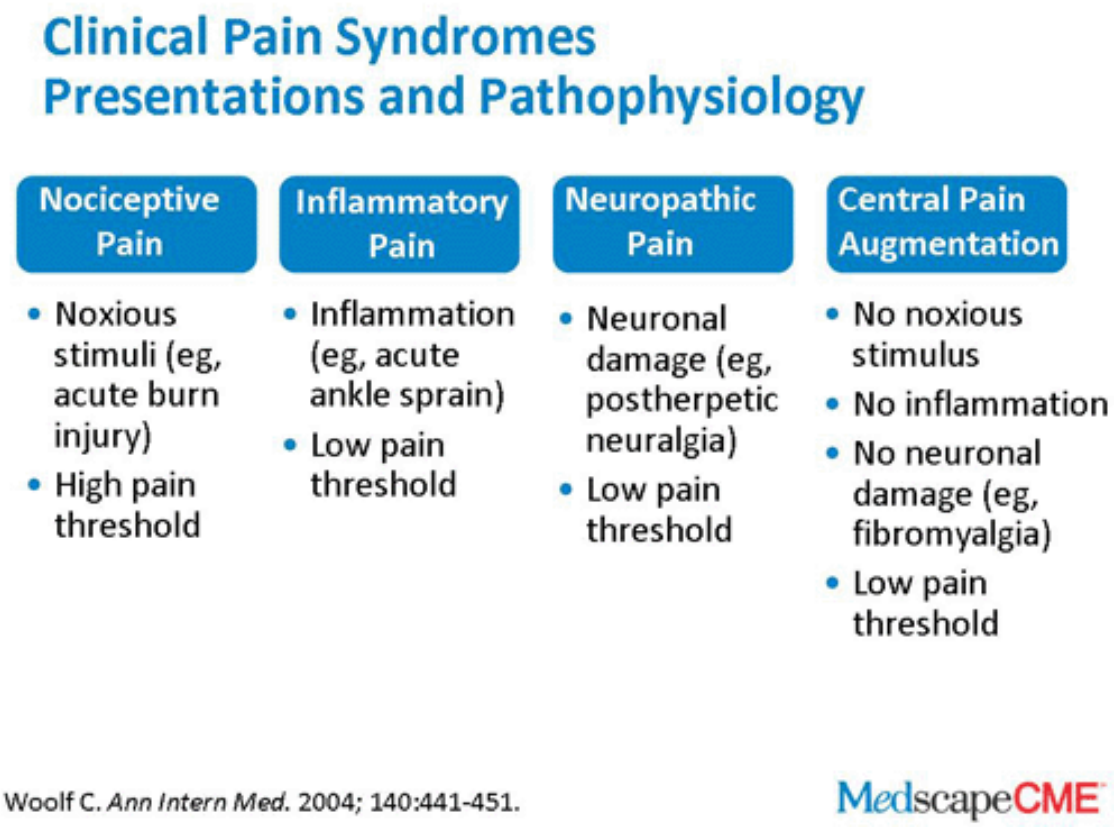
Classifying pain is helpful to guide valuation and treatment. The common types of pain are-

Nociceptive

It represents the normal response to noxious insult or injury of tissues such as skin, muscles, visceral organs, joints, tendons, or bones. Examples include-

- Somatic: musculoskeletal (joint pain, myofascial pain), cutaneous; often well localized

- Visceral: hollow organs and smooth muscle; usually referred



Neuropathic

This type of pain initiated or caused by a primary lesion or disease in the somatosensory nervous system. Sensory abnormalities range from deficits perceived as numbness to hypersensitivity (hyperalgesia or allodynia), and to paresthesias such as tingling. Examples include, but are not limited to, diabetic neuropathy, postherpetic neuralgia, spinal cord injury pain, phantom limb (post-amputation) pain, and post-stroke central pain.

Inflammatory

This is a result of activation and sensitization of the nociceptive pain pathway by a variety of mediators released at a site of tissue inflammation.

The mediators that have been implicated as key players are proinflammatory cytokines such IL-1-alpha, IL-1-beta, IL-6 and TNF-alpha, chemokines, reactive oxygen species, vasoactive amines, lipids, ATP, acid, and other factors released by infiltrating leukocytes, vascular endothelial cells, or tissue resident mast cells. Examples include- appendicitis, rheumatoid arthritis, inflammatory bowel disease, and herpes zoster.

CLINICAL IMPLICATIONS OF CLASSIFICATION

Pathological processes never occur in isolation and consequently more than one mechanism may be present and more than one type of pain may be detected in an individual. for example, inflammatory mechanisms are involved in neuropathic pain.

There are well-known pain disorders that are not easily classifiable. They include cancer pain, migraine and other primary headaches and wide-spread pain of the fibromyalgia.

QUALITIES OF PAIN

Pain Intensity
This can be roughly categorized as- mild, moderate and severe. It is common to use a numeric scale to rate pain intensity where 0 = no pain and 10 is the worst pain possible-

- Mild: <4/10
- Moderate: 5/10 to 6/10
- Severe: >7/10

Pain duration
This may categorize pain into-

Acute pain

Pain of less than 3 to 6 months duration

Chronic pain

Pain lasting for more than 3-6 months, or persisting beyond the course of an acute disease, or after tissue healing is complete. It is typically represented as inflammatory or neuropathic in origin, characterized by-

- Hyperalgesia (enhanced perception of pain to a nociceptive stimulus) and
- Allodynia (the novel perception of a normally innocuous stimulus as being painful).

The chronic pain states depend in part on sensitization of the spinal cord, the activation of nociceptive pathways projecting to medullary and midbrain sites, and the activation of descending pain facilitatory systems. The activation of descending pain facilitatory systems appear to be essential in maintaining a sensitized state of the spinal cord.

Acute-on-chronic pain

Acute pain flare superimposed on underlying chronic pain.

HOMOEOPATHY AND PAIN

Homoeopathy is a science with deepest study on microscopical differentiations of minutest signs and symptoms. Therefore, the remedies for pain can not be described in a chapter. This work will occupy a whole textbook. Well, we can use a repertory for study of Homoeopathic remedies for various types of pains and conditions. I am narrating some most important Homoeopathic remedies here for quick reference-

GENERALS - PAIN - amputation; after - acon. All-c. am-m. arn. Asaf. bell. cupr-ar. cupr. hell. Hyper. ign. kalm. Ph-ac. phos. rauw. spig. Staph. symph. verat.
GENERALS - PAIN - Body; all over- acon. ambr. anac. ant-t. arn. Bry. cann-s. canth. cina cocc. coff. colch. hell. kali-c. lat-m. led. loxo-lae. mag-c. sep. spig. Staph. Tarax.
GENERALS - PAIN – Bones- abies-n. acon. Agar. agn. all-c. alum. am-c. am-m. Ambr. anac. ang. ant-c. aran. Arg-met. Arg-n. arn. ars-i. ars. ASAF. asc-t. aur-ar. aur-i. aur-m. aur-s. Aur. bar-c. bar-i. bar-s. bell. Berb. bism. bry. calc-f. Calc-p. calc-s. Calc. camph. cann-s. canth. Caps. carb-an. carb-v. carbn-s. cartl-s. castor-

eq. caust. celt. Cham. chel. Chin. chinin-m. chinin-s. cic. Cinnb. cinnm. clem. cob-n. cob. Cocc. colch. coloc. Con. conch. crot-c. Crot-h. Cupr. cycl. Daph. dig. dios. dros. dulc. EUP-PER. euph. ferr-ar. ferr. Fl-ac. Gels. glon. graph. guaj. halo. hell. Hep. hom-xyz. ictod. ign. iod. IP. kali-bi. kali-c. Kali-i. kali-s. kreos. lac-d. lach. lat-m. led. Lyc. Lyss. m-arct. mag-c. mag-m. mang-act. mang-m. mang. merc-c. merc-i-f. merc-i-r. merc-k-i. MERC. Mez. Mur-ac. nat-c. nat-m. Nat-s. nat-sil. NIT-AC. nux-m. nux-v. oci-sa. ol-an. olnd. op. pant-ac. petr. PH-AC. Phos. Phyt. plb. plut-n. pot-e. PULS. pyrog. ran-s. raph. Rhod. Rhus-t. RUTA sabad. Sabin. sacch. samb. sarr. Sars. sec. Sel. Sep. Sil. sol-t-ae. spig. spong. Staph. still. stront-c. sul-i. Sulph. Symph. syph. teucr. ther. thuj. toxo-g. tub. valer. vanil. verat-v. verat. viol-t. vitr-an. wildb. zinc.

GENERALS - PAIN - cancerous affections, in- acon. alco. anthraci. Apis arn. Ars. aster. bell. bism-o. bry. bufo cadm-ar. cadm-o. Calc-act. calc-ox. Calc. carb-an. carc. cedr. cham. chel. cinnm. Cit-ac. cod-p. coloc. con. crot-h. cund. echi. euph-he. Euph. ferr-p. germ-met. Hydr. kali-p. kreos. lupin. mag-p. merc. morph. naja nit-ac. op. ovi-p. ox-ac. ph-ac. phyt. rham-cal. ruta sil. tarent-c.

GENERALS - PAIN – Cartilages- arg-met. lob-s. ruta stram.

GENERALS - PAIN – Glands- acon. all-s. Alum. Am-c. ambr. ant-c. ant-t. apis ARN. Ars-i. ars. arund. asaf. aur-ar. aur-i. aur-s. Aur. Bar-c. bar-i. bar-m. bar-s. BELL. berb. borx. Bry. bung-fa. calc. calen. Cann-s. canth. Carb-an. Carb-v. Carbn-s. Caust. cham. chin. cic. clem. Coloc. con. cor-r. dendr-pol. dulc. elaps graph. ham. hell. helo-s. hep. ign. Iod. kali-c. kali-s. lach. lat-m. LYC. m-ambo. m-arct. mag-c. mag-m. MERC. murx. naja Nat-m. Nit-ac. nux-v. petr. Ph-ac. PHOS. Puls. rheum rhus-t. sel. sep. sil. Spig. spong. squil. stann. staph. stram. Sul-ac. sul-i. Sulph. THUJ. verat.

GENERALS - PAIN – gouty- acon. agar. AGN. alum. am-c. am-m. ambr. anac. ang. ant-c. ant-t. ARG-MET. Arn. ars. Asaf. asar. aur. Bar-c. BELL. bism. borx. bov. BRY. Calc. camph. cann-xyz. canth. caps. carb-an. carb-v. Caust. cham. chel. Chin. cic. cina clem. Cocc. COLCH. coloc. con. croc. cupr. cycl. dig. dros. dulc. euph. euphr. Ferr. Graph. guaj. hell. hep. Hyos. Ign. iod. KALI-C. kali-n. kreos. laur. LED. lyc. m-ambo. mag-c. mag-m. Meny. MERC. Mez. mosch. mur-ac. Nat-c. Nat-m. nit-ac. nux-m. nux-v. olnd. par. petr. ph-ac. Phos. plat. plb. Puls. ran-b. ran-s. rheum rhod. RHUS-T. ruta sabad. SABIN. samb. Sars. sec. Sep. sil. spig. SPONG. squil. Stann. STAPH. stram. Stront-c. sul-ac. Sulph. tarax. teucr. Thuj. valer. verat. verb. viol-o. viol-t. Zinc.

GENERALS - PAIN – intolerable- acon. ars. Cham. chir-fl. cimic. COFF. colch. lat-m. med. nux-v. sars. syph.

GENERALS - PAIN – Joints- Acon-c. acon. aesc. agar-ph. agar. all-c. Alum. anh. anthraq. Apis Apoc-a. Apoc. aran. ARG-MET. ARN. Ars-i. Ars. asaf. asc-t. aster. aur. bacls-7. bar-c. Bell. Bol-la. brass-n-o. BRY. caj. CALC-P. calc-s. Calc. cann-i. Caps. carb-ac. carb-an. Carbn-s. cartl-s. casc. caul. Caust. cedr. Cham. Chin. chinin-ar. Cimx. Cinnb. cist. Cit-v. Cocc. coff. Colch. Coloc. com. con. cop. croc. crot-t. cupr. cycl. daph. dig. dios. diph-t-tpt. diph. Dulc. Ferr-ar. ferr-i. Ferr-p. Ferr. fic-m. flav. gels. Guaj. harp. hell. hist. hydr. hydrc. ign. Iod. ip. iris jac-c. jatr-c. Kali-bi. Kali-c. kali-n. kali-p. Kalm. Lac-ac. Lac-c. lat-m. LED. Leptos-ih. loxo-recl. Lyc. lyss. m-ambo. mag-f. mand. Mang. Merc. mez. morph. Nat-ar. nat-f. nat-m. Nat-s. nit-ac. nux-m. NUX-V. ol-an. par. penic. Ph-ac. Phos. Phyt. PLB. podo. PULS. rad-br. ran-s. raph. rham-cal. Rheum Rhod. RHUS-T. Ruta sabad. Sabin. Sang. scarl. sel. senec. Sil. sol-ni. sol-t-ae. Staph. strept-ent. streptoc. stroph-s. sul-ac. Sulph. symph. syph. ter. thala. thuj. toxo-g. tub-m. tub-r. tub. v-a-b. vanil. verat-v.

GENERALS - PAIN – Muscles- achy. Acon. agav-t. alet. am-caust. Ant-t. anthraq. arge. Arn. ars. aster. bell-p. bell. benz-ac. botul. brach. brass-n-o. bros-gau. Bry. caps. carbn-s. cartl-s. caul. Caust. chin. chlorpr. Cimic. coff. Colch. dioxi. Dulc. eryt-j. ferr-p. ferr-s. form. galla-q-r. Gels. harp. hist. ign. lat-m. led. Leptos-ih. loxo-recl. Luf-op. lyc. Macro. mag-s. mand. med. merc-c. merc. morph. nat-f. nat-m. nux-v. op. penic. Phyt. plb. puls. rad-br. Ran-b. rauw. rham-cal. Rhus-t. Ruta sal-ac. ser-a-c. sil. staph. stram. Strept-ent. streptoc. stroph-s. Stry. sulfa. symph. syph. tab. tarax. thal. thuj. toxo-g. tub-a. tub. valer. Verat-v. Verat. zinc.

GENERALS - PAIN – neuralgic- acetan. acon-c. acon-f. Acon. aconin. adren. agar. all-c. am-pic. am-val. aml-ns. anag. apoc. aran. arg-met. arg-n. Arn. ars-s-r. Ars. asaf. astac. aster. atro. Bell. berb. Bry. cact. caj. calc-caust. calc. Cann-i. canth. caps. carb-ac. card-m. caust. Cedr. cere-b. Cham. Chel. Chin. Chinin-ar. chinin-m. Chinin-s. cimic. cina cit-v. Clem. cocc-s. coff. Coloc. colocin. com. con. corn-f. crot-c. crot-chlol. crot-t. cupr. cur. cypr. dendr-pol. dios. dirc. dol. dulc. elat. eupi. ferr-m. ferr-p. ferr. form-ac. gaul. gels. Glon. Gnaph. grat. guaj. hecla helo-s. helo. hyos. hyper. ichth. IGN. ip. irid-met. iris kali-ar. Kali-bi. kali-chl. kali-cy. kali-fcy. Kali-i. Kalm. kreos. lac-c. lach. lat-h. lob. loxo-lae. Lyc. lyss. mag-c. mag-m. Mag-p. mag-s. malar. Med. mentho. meny. merc. methyl. Mez. morph. nat-m. nicc-s. Nux-v. onos. ox-ac. par. passi.

paull. Phos. Phyt. pime. pip-m. pip-n. Plan. Plat. plb. plect. polyg-xyz. prim-v. prot. prun. Psor. Puls. ran-a. Ran-b. ran-s. Rhod. rhus-t. rob. rumx. ruta sabad. sabal sacch-l. sal-ac. salol. sang. sanic. sec. sep. sil. Spig. Stann. Staph. stict. sul-ac. Sulph. sumb. syph. tarax. ter. Thal-met. thea ther. thuj. til. tong. trach-xyz. tub. vac. Valer. vario. Verat. Verb. verin. visc. xan. Zinc-p. Zinc-val. zinc.

GENERALS - PAIN - Paralyzed parts- agar. arn. Ars. bell. cact. cadm-s. calc. Caust. cina Cocc. crot-t. Helo-s. Kali-n. lat-m. nux-v. phos. Plb. rhus-t. sil. sulph.

GENERALS - PAIN – Periosteum- Acon. AM-C. ang. ant-c. ARN. ASAF. AUR-M. aur. bell. bry. Camph. cann-s. Cham. Chin. Colch. coloc. cycl. dys. fl-ac. graph. guare. hell. ign. kali-c. KALI-I. kali-n. Kalm. led. m-ambo. M-arct. m-aust. Mang. med. Merc-c. Merc. Mez. mur-ac. Nit-ac. PH-AC. phos. Phyt. Puls. Rhod. rhus-t. RUTA sabad. sabin. sars. Sil. spig. Staph. sul-ac. sulph. symph. syph. tub.

GENERALS - PAIN – radiating- Agar. androc. apis Arg-n. ars. bamb-a. bapt. Berb. caust. chir-fl. cimic. coloc. cupr. Dios. helo-s. hyper. influ. kali-bi. kali-c. kali-n. kalm. lat-h. lat-m. lil-t. mag-m. Mag-p. merc. mez. plb. sil. spig. Tell. xan.

GENERALS - PAIN – rheumatic- abrot. acon. act-sp. adren. aesc. agar. alf. Ambr. ang. Ant-c. Ant-t. anthraco. apoc-a. arb. arn. asaf. aspar. asper. aur. aza. bell-p. bell. Berb. bry. Bufo calc-f. camph. cann-s. carc. caust. cham. chin. cimic. clem. Cocc. coff. colch. croc. cupr. cycl. Dulc. elaps euphr. ferr-p. ferr. form. franc. gels. get. Gins. gnaph. Guaj. hipp. hyos. Ign. irid-met. jac-c. kali-s. kalm. lac-ac. lac-c. lat-m. Led. lyc. Lycpr. m-ambo. mag-s. magn-gr. Med. nat-m. nat-p. NUX-V. nyct. ol-j. phor-t. phyt. pin-s. plb. prim-v. psor. puls. rad-br. ran-b. Rham-cal. Rhod. Rhus-t. sabad. sabin. sal-ac. sang. sec. sil. Spig. spira. squil. Stel. Stict. stront-c. syph. teucr. tub-m. tub. Valer. verat-v. verat. visc. xan.

GENERALS - PAIN – Tendons- am-m. arn. benz-ac. berb. Bry. caust. colch. coloc. harp. iod. kali-bi. kalm. mag-f. pot-e. prun. RHUS-T. Ruta sabin. syph. thuj. zinc.

GENERALS - PAIN - wandering pain- acon. adam. adon. aesc. agar. agav-t. alum-sil. Am-be. am-c. Am-m. ambr. aml-ns. ant-t. Apis apoc-a. apoc. arg-met. Arn. ars-s-f. ars. arund. asaf. aur-ar. Aur. bapt. bar-c. Bell. benz-ac. berb-a. Berb. bry. buni-o. calc-caust. Calc-p. calc. camph. caps. Carb-v. Carbn-s. Caul. Caust. cedr. Cham. chel. Chin. Cimic. clem. Colch. coloc. com. con. croc. Cupr. daph. der. dig. Dios. diosm. elat. ery-a. eup-per. eup-pur. fago. ferr-p. ferr. fl-ac. form. gels. goss. graph. haliae-lc. ham. Hydr. Hyper. ictod. ign. iod. Iris KALI-BI. kali-c. Kali-fcy. kali-n. KALI-S. Kalm. LAC-C. lac-cp. Lach. lact. LED. lil-t. lyc. lycps-v. mag-c. mag-m. Mag-p. magn-gr. Manc. Mang. meny. meph. merc-i-r. merc. mez. myric. naja nat-m. nat-s. nit-s-d. Nux-m. nux-v. ox-ac. pall. phos. Phyt. plan. plat. Plb. polyg-h. prun. psil. puls-n. PULS. pyrog. pyrus Rad-br. Ran-b. rhod. Rhus-t. rhus-v. Rumx. sabad. Sabin. sacch. Sal-ac. salin. sang. sars. sec. senec. sep. sil. Sphing. Spig. spong. stel. still. Sulph. symph. syph. tab. tarent. tax. tell. thuj. tub-m. Tub. valer. verat-v. Verat. zinc-chr. zinc.

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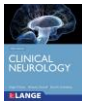
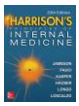
Chronic Pain Management > PATHOPHYSIOLOGY OF CHRONIC PAIN Morgan & Mikhail's Clinical Anesthesiology, 6e... TABLE 47–5 Mechanisms of neuropathic pain. Spontaneous self-sustaining neuronal activity in the primary afferent neuron (such as a neuroma). Marked mechanosensitivity associated with chronic nerve compression. Short-circuits between pain fibers and other types...

Encyclopedia Homoeopathica

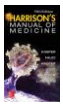


Headache & Facial Pain > PATHOPHYSIOLOGY OF HEADACHE & FACIAL PAIN Clinical Neurology, 10e

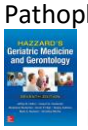
INTEGRATED USMLE-STYLE QUESTIONS AND ANSWERS The Big Picture: Medical Biochemistry... wine. He is obese, and his past medical history is significant for removal of kidney stones. Which of the following is involved in the pathophysiology of this patient's condition?



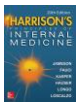
Migraine and Other Primary Headache Disorders > Pathophysiology Harrison's Principles of Internal Medicine, 20e... The pathophysiology of TTH is incompletely understood. It seems likely that TTH is due to a primary disorder of central nervous system pain modulation alone, unlike migraine, which involves a more generalized disturbance of sensory modulation. Data suggest a genetic contribution to TTH...



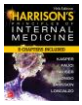
Pain and Its Management > PATHOPHYSIOLOGY: ORGANIZATION OF PAIN PATHWAYS Harrison's Manual of Medicine, 19e... with neuropathic pain (e.g., diabetic neuropathy, trigeminal neuralgia). The long-term use of opioids is accepted for pain due to malignant disease, but is controversial for chronic pain of nonmalignant origin. For a more detailed discussion, see Rathmell HP, Fields HL: Pain: Pathophysiology...



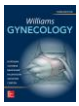
Pain Management > PATHOPHYSIOLOGY OF PERSISTENT PAIN Hazzard's Geriatric Medicine and Gerontology, 7e



Pain: Pathophysiology and Management Harrison's Principles of Internal Medicine, 20e



Pain: Pathophysiology and Management Harrison's Principles of Internal Medicine



Pelvic Pain > PAIN PATHOPHYSIOLOGY Williams Gynecology, 3e... Pain is a protective mechanism meant to warn of an immediate threat and to prompt withdrawal from noxious stimuli. Pain is usually followed by an emotional response and inevitable behavioral consequences. These are often as important as the pain itself. The mere threat of pain may elicit...


Radar 10