

Chronic Pain

Chronic pain is defined by the IASP as pain being present for more than "three months". When pain becomes chronic there are central changes which makes the pain pathological rather than protective as in the case of acute pain (Figure 1).

It could be said that chronic pain is a disease of the brain rather than disease or problem where the symptoms present. This is an important concept to understand especially when dealing with TMDs (Temporomandibular Disorders) and other neuropathic facial pains.

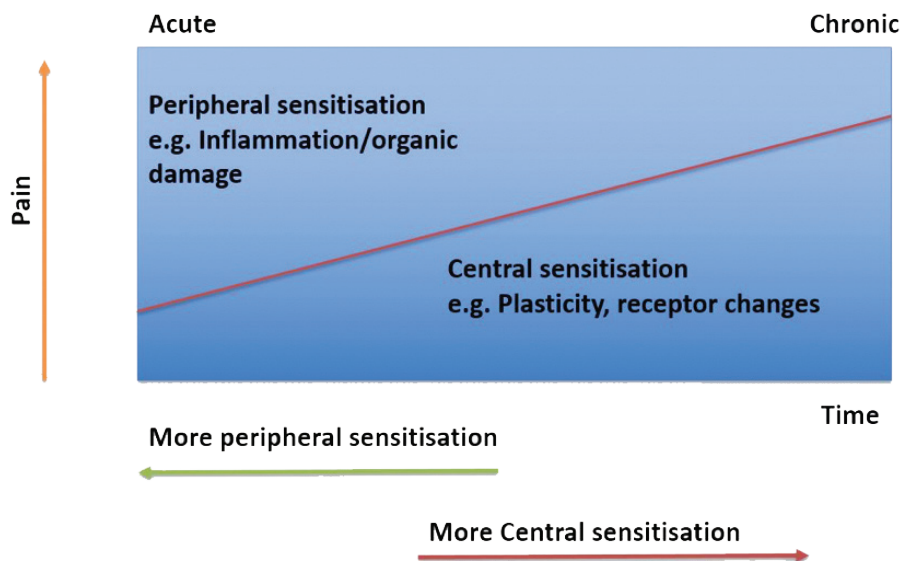


Figure 1: Acute vs. Chronic Pain

The clinical work up should include a good pain history SOCRATES (Site, Onset, Character, Radiation, Associations, Timeline, Exacerbating/Relieving factors, Severity).

Exclude anything of note from the medical history, as well as local causes from the examination e.g head and neck examination and cranial nerves examination. Special investigations can include Diagnostic Anaesthesia, Vitality/percussion testing, Blood tests, Imaging and biopsy.

Pain description can be helpful and "in general", e.g. TMD patients may often describe their pain as a dull ache, annoying or sharp; PDAP (Persistent Dentoalveolar pain) like a tooth ache, TN (Trigeminal Neuralgia) can be electric shock like sensations lasting less than two minutes and other neuropathies can be described as "burning". These are clues rather than diagnostically specific, as a complete history and examination will allow you to make the definitive diagnosis.



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Condition	Symptoms	Pain level (only a guide)	IMAGING	Blood tests	Other	Management
TMD (Broad term)	Pain in the muscles, difficulty chewing, Joint tenderness	4-9/10	OPG routine screen, MRI for TMJ/disc.	Blood tests to exclude temporal arteritis?		Usually conservative with oral appliance, CBT, Physio, muscle relaxants, Non- opioid medications. Nortriptyline, Gabapentin
TN	Electric pain; lasting 2 mins or less, unilateral (usually)	10-12/10	OPG (Routine screen) MRI to exclude central lesion or vascular compression	Routine, LFTs and Kidney function		Microvascular Decompression if indicated Carbamazepine, Oxycarbazepine, Gabapentin, pregabalin
PDAP	Constant ache, toothache like	7-9/10	OPG, PA, MRI to exclude central cause		PA, Diagnostic LA, Vitality, Cranial nerves examination	Topical capsaicin, Nortriptyline, Gabapentin, Pregabalin
Oral Dysesthesia	Dry mouth with normo-salivation, Burning mouth	6-8/10	MRI to exclude central cause	Routine blood tests (e.g. FBC, Glucose, Iron Studies, VitB12/ Folate, TSH, Serum zinc, ANA)	Cranial nerves examination, Salivary flow, smear test	Topical capsaicin, topical clonazepam, Nortriptyline, Gabapentin, Pregabalin
Trigeminal Autonomic Cephalalgias	Unilateral Shooting pain, Autonomic symptoms	9/10	MRI	Routine Blood tests		Depending on the diagnosis but can include O2, Sumatriptan, Indomethacin, Neuropathic pain medications
Giant cell arteritis	Continuous often sudden onset on temporal region jaw area. Visual disturbance, loss of vision, malaise, fever, myalgia	8-9/10		ESR and C reactive protein raised	temporal artery biopsy	High dose corticosteroids minimum 40mg daily

The most common chronic pain condition that a dental practitioner is more likely to see is TMD. This is a broad term and our opinion needs redefining. As previously described, chronic pain may be associated with central sensitisation and neural plasticity, and these patients may have a genetic susceptibility for pain. Reduced mouth opening can be due to a disc problem, muscular pain or bony diseases, such as osteoarthritis, so you must distinguish between the three. Majority of "TMD" cases have a predominantly muscle based symptoms and less so with the TMJs if combined joint-muscle symptoms are present. Current recommendations of TMDs are for non-surgical management including self-help advise, CBT, Oral Appliance therapy and physiotherapy as well as neuropathic pain medication. A surgical approach should not be undertaken without predominantly TM joint symptoms, pathology or end stage disease. Arthrocentesis and or TMJ procedures are recommended for Acute closed lock of no more than 4-6 weeks duration and also TMJ pathology shown radiologically AND with symptoms centred on the TMJs.¹ Over 90% of TMD including those with both muscular and joint symptoms are well managed by non-surgical methods.² TMJ clicking and disc "issues" predominantly are said to improve with time and note that TMJs are lined by fibrocartilage which repair itself better than hyaline cartilage and therefore management of TMJ arthritic conditions may be different than those of other synovial joints.³

REFERENCES

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3. (Meikle MC; The Temporomandibular joint: A Biological basis for clinical practice; Philadelphia Saunders, 1992)