

# Craniomandibular disorders

## Patient information

**Craniomandibular disorders (CMD)** collect different musculoskeletal conditions that involve the masticatory muscles, the temporomandibular (TM) joints and the associated structures.

The various clinical conditions are characterized by similar signs and symptoms:

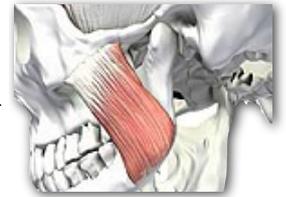
- ▶ Pain in the preauricular area, TM joints or masticatory muscles;
- ▶ Limitation or deviation in mandibular range of motion;
- ▶ TM joint sounds (clicking and crepitus) during mandibular function.

Other common complaints include headache, neck ache, face ache, ear ache, tinnitus, ear fullness, and perceived hearing loss.

Prevalence of CMD is very high. 75% of the general population present at least one sign of dysfunction (joint noise or deviation on opening) and 33% have at least one symptom (pain).

International classification divides CMD in 3 main categories:

- ▶ Muscular pain, with or without functional limitation;
- ▶ Disk displacement (i.e. alteration of the normal position of the disk between the mandibular condyle and the eminence);
- ▶ Inflammatory and/or degenerative condition of the TM joint.



Etiology of CMD is **multifactorial** in nature. There is no simple cause-effect relationship between a single factor and the disorder. Many factors hazard the masticatory system during life, and when it cannot balance for them, symptoms may appear. The various etiologic factors are classified as predisposing, initiating and perpetuating. Genetic, structural, metabolic and psychologic factors may make an individual more prone to develop a clinical condition, but mechanical overload, related to macro- or micro-trauma, is generally the last straw. Perpetuating factors may be any predisposing or initiating factors that can sustain the disorder and complicate the management.

CMD are similar to other musculoskeletal disorders: they are benign and **self-limiting in nature**, and generally do not produce irreversible tissue changes. Therefore, in spite of high prevalence,

only a small percentage of people actually need some form of therapy. However, in presence of pain or dysfunction, it is important to consult a doctor for ruling out more uncommon and serious condition. The diagnosis of CMD is based mainly on information derived from the patient's history, clinical examination, and when indicated TM joint imaging. Adjunctive instrumental procedures are generally not required.

According to the most recent international guidelines, treatment of CMD is initially based on **conservative, reversible and evidence-based therapeutic modalities**. These are effective for the majority of patients, and rarely invasive and irreversible therapies are needed. Common accepted therapeutic modalities include a **self-care program**, in which patients learn how to manage their symptoms and reduce contributing factors.

### Self-care program

In rest position, when we do not talk, eat, smile or laugh, masticatory muscles should be relaxed and TM joints unloaded. Unfortunately, some people developed habits or parafunctions that prevent rest. The following tips may help you to relax and reduce the overload on the masticatory system, and alleviate symptoms.

- Use **cold or hot packs**. Apply moist heat, ice or combination of both on pain area. Most of people prefer heat, but if it increases your pain, alternate ice and heat, or use ice only.

- Apply moist heat for 20 minutes 2-4 times a day. You can wet a towel with hot water and wrap it around a hot water bottle.



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- Alternate ice and heat 2-4 times a day. First apply moist heat for 10 minutes, then scrub the pain area with an ice cube in a cleaner. Repeat 4-5 times.



- Apply the ice cube until tingling (generally after 10 minutes).

- **Prefer soft food diet** (soups, eggs, cheese, etc). Avoid chewing gum. Avoid chewing heavy, crunchy or sticky food (tough meat, peanuts, candies, raw carrots). Cut food into small pieces. Chew on both sides, on posterior teeth. Do not bite with anterior teeth.

- **Relax masticatory muscles.** Keep teeth apart.

- When you do not chew or swallow, opposite teeth should never contact. Pay attention to the position of your jaw: do you clench or grind your teeth? People often clench teeth when they are nervous, drive, work on a PC or focus on something. Use to keep jaw muscles relaxed, teeth apart and tongue rest on palate, behind the upper incisors.

- A right head, neck and back posture help to keep a right jaw position. A pillow or a towel may act as lumbar support when you seat. Keep the head upright. Avoid the jaw resting on hands. When you working on a PC, keep an upright position.

- **Massage jaw muscles and temples.** Massage relaxes muscles and reduces pain.

- **Avoid bad habits** that can overload muscle and joints. Do not: clench, grind or keep teeth in contact; bite cheeks or lips; bite objects; push the tongue against the teeth.

- **Sleep well.** The best sleep position is resting on your back. Avoid sleeping face down.

- **Avoid playing wind, brass and string musical instruments** that stress, retrude or strain the jaw.



- **Protect yourself from cold and wind.**



- **Take time for you.** At least once or twice a day relax and relieve tension from jaw and neck. People often benefit from simple relaxation techniques, like sitting in a quiet place listening relaxing music, taking a bath or a shower, breathing deeply and slowly. You can just read something, or do some sport. Professional course like Yoga may help.

- **Limit jaw opening.** Avoid yawning and screaming.

- When you yawn, resist with a hand against your chin, or keeping the tongue against the palate.

- Avoid long dental session. Take a rest frequently.

- **Take medications if you need.** Some over-the-counter drugs (like NSAIDs) may be useful. In any case consult your physician before assumption.

Self-care instructions often may be sufficient to resolve CMD symptoms. However, when the masticatory system is overloaded, other conservative therapeutic modalities may help you. These include:

- **Physical therapy.** Manual techniques like massages, stretching and active exercises may be very useful. Your doctor may teach them to you or refer you to a physiotherapist if necessary.

- **Occlusal splint therapy.** In some cases your doctor may think that the use of an occlusal splint may be indicated for your specific condition.

- **Pharmacologic therapy.** The specific use of some class of drugs may be complementary to other therapies. You should always follow your doctor's instructions.



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