

AETIOLOGY

Buccal mucosa is the inner lining of the cheeks, lips and the entire oral cavity from the line of contact between the opposing lips to the line of attachment of the mucosa to the alveolar ridges and pterygomandibular raphe.

It occupies an area of 50-60 cm².

This mucosa may be damaged by the appearance of mouth ulcers.

Mouth ulcers (also called oral aphthae or aphthous ulcers) are painful open ulcers or sores in the mouth. Mouth ulcers are white or yellow, and surrounded by a bright red area. They are not cancerous.

Mouth ulcers normally heal without treatment, but we can help to accelerate their repair.

POSSIBLE CAUSES

Mouth ulcers (oral aphthae) can be caused by several agents.

Mouth ulcers can be caused by:

Infectious agents:

Bacteria (tuberculosis)
Fungi (candidiasis)
Viruses (herpes, chickenpox)

Caustic agents:

Physical agents (heat)
Chemical agents (chemicals)

Traumas:

Orthodontics

Mechanical factors:

Dentures
Implants

Immune disorders:

Tumours
Lichen planus

Other factors:

Emotional stress
Lack of certain vitamins and minerals in the diet (especially iron, folic acid and vitamin B12)
Hormonal changes
Food allergies

Anyone can have mouth ulcers, which are very common in the oral mucosa.

A good diagnosis is especially important if:

- the diameter of the ulcer is greater than 1 cm.
- it causes severe pain and even dysphonia or dysphagia.
- it persists (6 or more weeks).
- it leaves a scar after healing.

CLINICAL FEATURES

A mouth ulcer is an ulcerative lesion of various sizes and causes, which can progress to form lesions in the mucosa of the oral cavity. The most common type of mouth ulcer is the “minor aphthous ulcer”, which has a diameter of less than 1 cm, can appear alone or in groups but always on the surface, takes 6 to 14 days to heal, and recurs every 3 or 4 months.

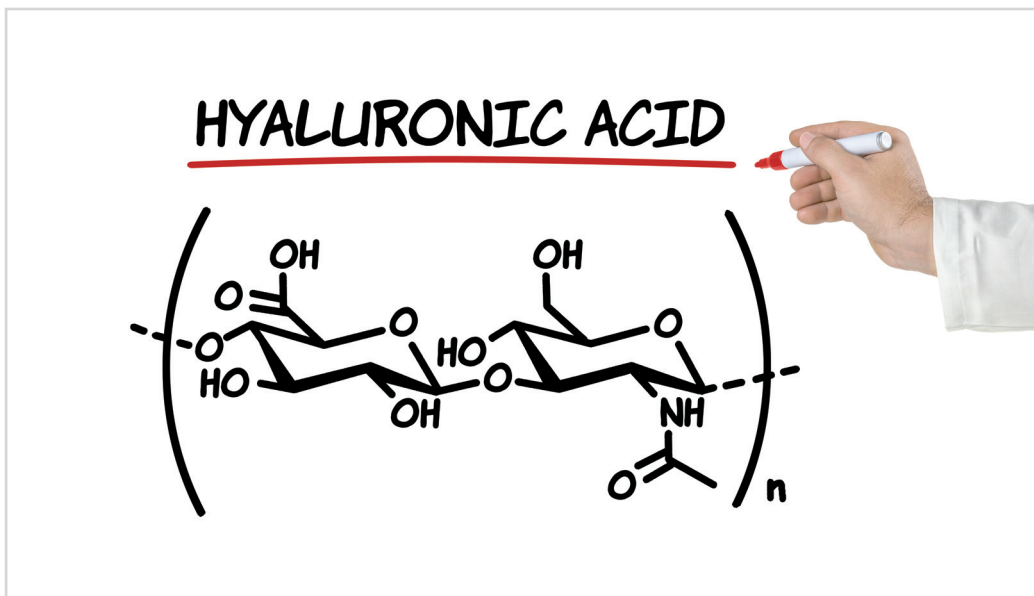
The healing of all types of mouth ulcers with a known, non-malignant origin is the result of tissue regeneration.



ROLE OF HIGH MOLECULAR WEIGHT IN MOUTH ULCERS

HA is a high-molecular-weight glycosaminoglycan (GAG) the most abundant high-molecular-weight GAG in soft periodontal tissues.

Repeating disaccharide unit



After being synthesised in the cell membrane, it is released into the extracellular matrix without being bound to proteins or lipids, which makes it free from allergenic compounds.

A molecule of HA has a high hydrodynamic volume, and HA solutions exhibit high viscosity and elasticity, characteristics that explain its properties:

- Space filling
- Lubrication
- Shock absorption
- Protein exclusion
- Decreased penetration of viruses and bacteria

Due to the above-mentioned characteristics, HA has the following effects:

- modulating effects on inflammation
- bacteriostatic effects and effective action against *Candida albicans*
- improvement of the tissue regeneration processes, due to its bacteriostatic effect, its hygroscopic properties and its role as a component of the HA-fibrin matrix
- stimulation of blood vessel formation (angiogenesis)
- acceleration of bone regeneration, stimulating osteoinduction, as demonstrated in animal models
- suitability for use as a sustainable biomaterial in bone remodelling techniques

THE USE OF GENGIGEL®

The most important measure to be taken when mouth ulcers appear is to diagnose their aetiology, in order to treat the underlying cause if it is known and treatment is possible.

The second measure is to relieve the symptoms:

- cleaning the mouth and teeth may help relieve the symptoms
- hot or spicy food should be avoided until the mouth ulcer has healed

Moreover, in practice, it has been reported that external application of hyaluronic acid to the affected mucosa has very good results in the healing of mouth ulcers.

The use of external HA such as Gengigel®:

- protects the oral mucosa
- promotes re-epithelialisation due to proliferation of basal keratinocytes
- maintains tissue hydration during inflammatory processes or response to ulcerative tissue damage
- reduces spontaneous pain and pain when swallowing, thus improving the patient's experience
- is indicated in oral mucositis (whatever its origin), and in all types of mouth ulcers
- improves the tissue regeneration processes due to its bacteriostatic effect, its hygroscopic properties and its role as a component of the HA-fibrin matrix

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