

Large quantities of HA are aggregated in the outer layers of healthy gums. There, it participates in creating an antibacterial barrier and contributes to the structural and functional integrity of periodontal ligaments.

With periodontal diseases and other tissue traumas (inflammatory conditions, gingival pockets, wounds, etc.) the tissue requirement for HA increases considerably (by up to some 200% compared with the basal values) thus demonstrating its specific role in regulating cell turnover and optimizing local tissue regeneration. The deficiency in HA that arises under these conditions prevents the tissue from :

- restoring the normal free water balance (as a consequence of which swelling and compression cause an increase in pain),
- activating the migration of fibrocytes and as a consequence, healing is slower.

Therefore, a lack of suitable HA is responsible for the continuation of the inflammatory condition.

The study of the human body has proved that the availability of exogenous HA, with similar structure to the one naturally occurring, facilitates the process of wound healing (2). Thanks to the wide spectrum of the biological activity of HA, a usage in dentistry has been established as a factor with haemostatic properties, working not only against oedema, inflammation, but also supporting regeneration of oral cavity tissue.

## REFERENCES

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## SUMMARY

This article contains basic information on the chemical structure, properties and functions of hyaluronic acid in the human body. HA is a natural mucopolysaccharide which occurs in the basic connective tissue of the human body. HA plays a significant role in processes of angiogenesis and the tissue regeneration. Through clinical experience it has been noticed that wound healing is accelerated and scarring is minimized, with the usage of HA. The usage of HA in dentistry is indicated in inflammatory conditions and other tissue trauma.

Wykorzystanie kwasu hialuronowego w leczeniu stanów patologicznych  
błony śluzowej jamy ustnej

W pracy poglądowej zawarto podstawowe informacje na temat struktury chemicznej, właściwości i funkcji kwasu hialuronowego w ludzkim organizmie. Kwas hialuronowy jest mukopolisacharydem naturalnie występującym w istocie podstawowej tkanki łącznej organizmu czło-

wieka. Ma on duże znaczenie w procesie angiogenezy i regeneracji tkanek. Klinicznie stwierdzono przyspieszenie gojenia ran i zmniejszenie powstawania blizn podczas stosowania kwasu hialuronowego. Kwas ten znalazł zastosowanie w stomatologii w takich sytuacjach, jak stany zapalne i urazy tkanek jamy ustnej.