

## INTRABUCCAL STRETCHER

## BACKGROUND OF THE INVENTION

The present invention relates generally to a device for stretching muscles and tendons related to bucca, particularly to an intrabuccal stretcher which is a device having a specific shape and which is inserted to an oral cavity to stretch internal sides of buccae so as to activate muscles and tendons related to bucca, in turn, to achieve reinforcement of jaw bones and gums and activation of salivary glands.

## DESCRIPTION OF THE RELATED ART

Buccae have many intricate functions in our daily lives. For example, they help respiration, eating and drinking, phonation and produce delicate expressions of the face in cooperation with the mouth. However, there are not a few in the elderly who have difficulty in masticating and swallowing food, while weakening of buccal muscles and jaw muscles which lead to retrogression of jaw bones is frequently observed in the younger generations today, and these phenomena are giving rise to serious social problems

Under such circumstances, exercise of the tongue to stimulate salivary glands and accelerate secretion and external buccal massage using fingers are becoming popular as easy oral hygiene.

## SUMMARY OF THE INVENTION

The present invention relates to a stretcher and reinforcing device developed with a view to preventing weakening of buccal muscles, jaw muscles and other muscles related to them and to improving such muscles.

In order to attain the above objective, the present invention provides an intrabuccal stretcher having a supporting bar and a pushing part formed at each distal end of the supporting bar; the pushing part having such a thickness and such a roundish shape as are suitable for pushing internal sides of buccae; the supporting bar being bent almost symmetrically with respect to the vertical axis; the pushing parts being extended outward from the distal ends of the supporting bar; wherein the pushing parts are inserted into an oral cavity with the supporting bar remaining partly outside the oral cavity to push and stimulate internal sides of the buccae.

Other aspects and advantages of the invention will become apparent from the following description, taken in conjunction with the accompanying drawings illustrated by way of examples the principles of the invention.

## BRIEF DESCRIPTION OF THE DRAWINGS

The invention together with the objects and advantages thereof, may best be understood by reference to the following description of the presently preferred embodiments together with the accompanying drawings in which:

FIG. 1 is a front view showing an intrabuccal stretcher according to a first embodiment of the present invention;

FIG. 2 is a plan view of the intrabuccal stretcher according to the first embodiment;

FIG. 3 is an explanatory drawing showing the case where the pressing parts are rollers;

FIG. 4 is a front view showing an intrabuccal stretcher according to a second embodiment of the present invention;

FIG. 5 is a plan view of the intrabuccal stretcher according to the second embodiment;

FIG. 6 is a front view of an intrabuccal stretcher in which the supporting bar is bent into a V-shape;

FIG. 7 is a front view of an intrabuccal stretcher in which the supporting bar is crossed;

FIG. 8 is a drawing explaining actions of an intrabuccal stretcher having a width-adjusting ring;

FIG. 9 is a front view of an intrabuccal stretcher having additional levers;

FIG. 10 is an explanatory drawing when the intrabuccal stretcher is squeezed to be inserted into the oral cavity;

FIG. 11 is an explanatory drawing when the pushing parts of the intrabuccal stretcher are inserted into the oral cavity separately;

FIG. 12 is an explanatory drawing showing the state where the intrabuccal stretcher is already inserted into the buccal cavity;

FIG. 13 is an explanatory drawing showing the state where the intrabuccal stretcher is pulled forward;

FIG. 14 is an explanatory drawing showing the state of stretching caused by the action of the mouth;

FIG. 15 is an explanatory drawing showing the state where the buccae are stretched by widening the intrabuccal stretcher.

FIG. 16 is another embodiment of the intrabuccal stretcher in which the supporting bar is V-shaped.

FIG. 17 is a front view of another embodiment of the intrabuccal stretcher in which the supporting bar is crossed.

FIG. 18 is a front view of the intrabuccal stretcher of the present invention having added levers.

## DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS

The mode for carrying out the present invention will be described together with the examples shown in the drawings. FIG. 1 is a front view of an intrabuccal stretcher according to a first embodiment, and FIG. 2 is a plan view of the same. The intrabuccal stretcher 1 shown in FIG. 1 consists essentially of a pair of pushing parts 2 and a supporting bar 3.

The pushing parts 2, which are formed at both distal ends of the supporting bar 3, have such a thickness and such a roundish shape as are suitable for pushing in an oral cavity the internal sides of the buccae. While the pushing parts 2 and the supporting bar 3 are formed integrally in the illustrated example, the intrabuccal stretcher 1 may have additional parts. FIG. 3 shows such an example, in which a pair of rollers 4 are used as the pushing parts 2.

The lower side at the distal end portion of each pushing part 2 shown in FIG. 1, i.e., the portion to be abutted directly against the internal side of the bucca, has a curved surface which is rounded gently. Thus, the pushing parts 2 can be brought into mild contact with the internal sides of the buccae when the span between the pushing parts 2 is widened by pulling them outward, and one can use the intrabuccal stretcher 1 without pain in the buccal cavity.

The supporting bar 3, which is substantially U-shaped and is curved almost symmetrically with respect to the vertical axis, as shown in FIG. 1, is bent further at each distal end to form the pushing part 2. It should be noted here that in order to facilitate insertion of the pushing parts 2 into the oral cavity, the supporting bar 3 is allowed to have a bent configuration such that it is retracted immediately before each pushing part 2 to adjust the clearance between the pushing parts 2.

While there may be given some considerable means for adjusting the clearance between the pushing parts 2, one is