# Article information:

Periodontal effects of maxillary expansion in adults using non-surgical expanders with skeletal anchorage vs. surgically assisted maxillary expansion: a systematic review - PMC
<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8579525/>

# Article summary:

1. The article reviews the periodontal effects of maxillary expansion in adults using non-surgical expanders with skeletal anchorage compared to surgically assisted maxillary expansion.

2. The study found that non-surgical expanders with skeletal anchorage produced fewer harmful periodontal effects, such as alveolar bending and dental inclination, compared to surgically assisted maxillary expansion.

3. The evidence is limited but suggests that bone-borne or tooth-bone-borne expanders with bicortical skeletal anchorage are associated with fewer undesirable periodontal effects.

# Article rating:

Appears moderately imbalanced: The article provides some useful information, but is missing several important points or pieces of evidence that would be required to present the discussed topics in a balanced and reliable way. You are encouraged to seek a more balanced perspective on the presented issues by exploring the provided research topics and looking at different information sources.

# Article analysis:

The article titled "Periodontal effects of maxillary expansion in adults using non-surgical expanders with skeletal anchorage vs. surgically assisted maxillary expansion: a systematic review" aims to describe and compare the harmful periodontal effects of maxillary expansion in adult patients using different types of anchorage devices.

The article begins by highlighting the use of non-surgical rapid maxillary expansion (RME) in treating transversal deficiencies of the maxilla in adolescents and children. However, it states that RME is rarely successful in adult patients due to the fusion and rigidity of the palatal suture and adjacent joints. The adverse effects of RME in adults are then listed, including instability of results, pain, edema, gingival recession, root resorption, ulceration of the palate mucosa, tooth inclination, and alveolar bending.

The article claims that maxillary expansion in adults using non-surgical expanders with skeletal anchorage produces fewer harmful periodontal effects compared to surgically assisted maxillary expansion. It cites six studies that were included in the review and states that one study had a low risk bias while five were excellent regarding selection, comparability, and outcomes.

However, there are several potential biases and limitations within this article. Firstly, the search strategy for identifying relevant studies is not clearly described. The article mentions searching electronic databases such as PubMed, Embase, Cochrane, and LILACS but does not provide specific search terms or inclusion/exclusion criteria. This lack of transparency raises concerns about potential cherry-picking of studies that support the desired conclusion.

Additionally, only six studies were included in the review, which is a relatively small number. This limited sample size may not provide a comprehensive representation of all available evidence on this topic. Furthermore, no information is provided about the characteristics or quality assessment of these included studies beyond their risk of bias assessment.

The article also lacks a discussion of potential confounding factors or alternative explanations for the observed differences in periodontal effects between non-surgical and surgically assisted maxillary expansion. Factors such as patient age, severity of transversal deficiency, treatment protocol, and operator skill could all influence the outcomes but are not adequately addressed.

Moreover, the article does not provide any information on the long-term stability of the results or potential complications associated with non-surgical expanders with skeletal anchorage. It is important to consider these factors when evaluating the overall effectiveness and safety of different treatment approaches.

Overall, this article presents a limited and potentially biased analysis of the periodontal effects of maxillary expansion in adults. The lack of transparency in the search strategy, small sample size, absence of detailed study characteristics, and failure to address confounding factors or alternative explanations weaken the reliability and generalizability of the findings. Further research is needed to provide a more comprehensive understanding of this topic.

# Topics for further research:

* Long-term stability of maxillary expansion in adults using non-surgical expanders with skeletal anchorage
* Complications of non-surgical maxillary expansion in adult patients
* Factors influencing the periodontal effects of maxillary expansion in adults
* Comparison of different types of anchorage devices for maxillary expansion in adults
* Success rates of non-surgical rapid maxillary expansion in adult patients
* Alternative treatment options for transversal deficiencies of the maxilla in adults

# Report location:

<https://www.fullpicture.app/item/fa88476f6990eeb7dcd9efff93c48f9f>