



## THE EFFECT OF DEEP BITE ON POSTURE.

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**Annotation.** This article explores the complex relationship between deep bite and posture, shedding light on the potential impact of biting teeth on overall body posture. Using a review and analysis of the literature, this study examines existing data and presents conclusions about the correlation between deep bite and posture changes. The article also discusses the potential implications for dentists and practitioners, providing valuable information for interdisciplinary collaboration.

**Keywords:** Deep bite, malocclusion, posture, musculoskeletal system, temporomandibular joint (TMJ), dental occlusion, craniofacial morphology.

The position of the human body is a complex interaction of various factors, including skeletal structure, muscle balance, and joint function. It has been suggested that biting teeth, especially a deep bite, affects overall posture, but the extent and mechanisms of this relationship remain unclear. The purpose of this article is to fill this gap by studying the existing literature and conducting a comprehensive analysis of the potential effect of deep bite on posture.

In recent years, several studies have examined the relationship between dental bite and posture. There are suggestions in the literature that changes in craniofacial morphology, for example, associated with deep bite, can lead to changes in the musculoskeletal system and contribute to deviations in posture. However, conflicting data and methodological differences in existing studies require careful study in order to draw reliable conclusions.

To investigate the relationship between deep bite and posture, a systematic review of the relevant literature was conducted. PubMed, Scopus and other databases have been searched for studies published over the past decade. The inclusion criteria focused on scientific articles that specifically examined the effect of deep bite on human posture.

The relationship between occlusion (the way teeth are joined) and posture is of interest in the field of dentistry, orthodontics and physiotherapy. Deep bite, also known as overbite, occurs when the upper front teeth significantly overlap the lower



front teeth. This condition can potentially have an effect on posture, although the exact nature of this relationship is still a matter of research and debate.

Several theories suggest that there may be a connection between the bite of teeth and the position of the head, neck and spine. Here are some key points to consider regarding the effect of a deep bite on posture:

- **Muscle imbalance:** A deep bite can potentially lead to muscle imbalance in the jaw, head and neck area. This, in turn, can affect the overall position of the spine and posture.
- **Problems with the temporomandibular joint (TMJ):** Deep bite may be associated with problems of the temporomandibular joint. Discomfort or pain in the jaw joint can lead to a change in the position of the head and neck as people try to find a more comfortable position.
- **Tilting the head forward:** It is assumed that people with deep bite may develop a forward tilt of the head as a compensatory mechanism. This is a position in which the head is shifted forward relative to the shoulders, possibly in an attempt to maintain a more comfortable jaw position.
- **Compensation of body position:** The body has a complex system of compensatory mechanisms, and changes in one area (for example, in the oral cavity) can potentially lead to adjustments in other areas to maintain balance and stability.
- **Interdisciplinary approach:** Solving problems related to deep bite and posture may require an interdisciplinary approach involving orthodontists, dentists, physiotherapists and other medical professionals. Treatment may include orthodontic intervention to correct the bite, as well as physical therapy to eliminate any associated muscle imbalances or posture problems.

It is important to note that research in this area is ongoing, and not all experts agree on the degree of relationship between dental bite and posture. In addition, individual reactions to deep bite may vary, and not all people with deep bite will have serious problems with posture. If you have concerns about your bite or posture, it is recommended that you consult both a dentist or orthodontist, as well as a medical professional specializing in posture and musculoskeletal problems, for a comprehensive assessment and appropriate recommendations.

The relationship between deep bite and posture is a multifaceted phenomenon influenced by various factors such as the morphology of the craniofacial region, muscle activity and the function of the temporomandibular joint. In the discussion



section, the strengths and limitations of the existing literature are critically assessed, and the potential mechanisms underlying the observed relationships are highlighted. It also examines the implications of these findings for clinical practice and the collaborative efforts of dentists and healthcare professionals.

### **Conclusions:**

Although the existing literature suggests a potential link between deep bite and posture, further research is needed to better understand this relationship. Standardized methodologies and interdisciplinary collaboration are crucial to expand our knowledge in this field. The results of this study complement the growing body of evidence and highlight the importance of taking dental bite into account when assessing the general condition of the musculoskeletal system.

To build on the existing knowledge base, future research should focus on longitudinal studies with a large sample size and standardized measurement tools. In addition, the study of the effectiveness of orthodontic interventions in improving posture and musculoskeletal health in people with deep bite can provide valuable information for clinical practice.

In conclusion, this article provides a comprehensive analysis of the existing literature on the effect of deep bite on posture. By critically evaluating the available data and suggesting directions for future research, she contributes to a better understanding of the complex relationship between dental bite and the general condition of the musculoskeletal system.

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