



Title	Malocclusions and Orthodontic Treatment in a Health Perspective
Agency	SBU, The Swedish Council on Technology Assessment in Health Care PO Box 5650, SE-114 86 Stockholm, Sweden; Tel: +46 8 412 32 00, Fax: +46 8 411 32 60; info@sbu.se, www.sbu.se
Reference	SBU Report 176, 2005, ISBN: 91-85413-06-2, summary in English and complete report in Swedish are available on www.sbu.se

Aim

To investigate the evidence on the risks and consequences of different orthodontic treatment methods versus no orthodontic treatment, the effects on oral and psychosocial health, whether the outcome of orthodontic treatment is long lasting, and whether validated devices (eg, indices) are available to assess treatment need. Economic aspects were considered.

Conclusions and results

Patients with a large overjet have a higher incidence of trauma to the anterior teeth of the maxilla. Also, if the maxillary canines are incorrectly positioned in the jawbone before their eruption, the risk is greater that they will damage the roots of the front teeth as they emerge. Caries prevalence in people with occlusal deviations is the same as in people with a normal bite. Evidence is insufficient to draw conclusions on a correlation between specific untreated malocclusions and symptomatic temporomandibular joint disorders. A correlation between moderate malocclusions and negative effects on the self-image of 11- to 14-year-olds has not been found, although adults with untreated malocclusions express more dissatisfaction with the appearance of their bite than adults without malocclusions. Scientific evidence is insufficient to draw conclusions about the validity of morphological priority indices. Treatment of crowding aligns the dental arch, and treatment of large overjet with fixed appliances (Herbst¹) normalizes the occlusion. Relapses occur, but cannot be predicted at the individual level. Common complications of orthodontic treatment are pain and root resorptions². Side effects such as temporomandibular joint disorders (TMD) have not been demonstrated in connection with orthodontic treatment.

Methods

Electronic databases were used in the primary search for literature dating back to 1966. The findings of a study had to be applicable to the questions posed by the report, ie, appropriate outcome measures, followup period, and study design. The reviewers rated the quality and internal validity of each study. The scientific evidence for each conclusion was rated based on the quality and internal validity of the studies.

Further research/reviews required

Studies on indications and assessments (decisions) for orthodontic treatment, followup of treatment results, the significance of malocclusions for quality of life, and studies in the field of health economics are needed.

¹ Braces that hold the mandible in a forward position via a telescoping mechanism.

² Gradual dissolution of tooth roots.