

# Juvenile idiopathic arthritis. Manifestations in the jaws

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## ABSTRACT

Juvenile idiopathic arthritis (JIA) is an inflammatory joint disease in children that can involve the temporomandibular joint (TMJ), consequently affect craniofacial growth, jaw function creating discomfort and pain. It is possible that the TMJ is one of the most frequently involved joints in JIA. Earlier studies have often comprised a limited number of patients and different classification criteria have been used. The introduction of new medical therapies might have influenced the prognosis for JIA in the jaw system. The overall aim was to investigate how JIA manifests in the jaws by evaluating symptoms from the orofacial region in adults once diagnosed with JIA. Also investigate clinical, subjective and radiological involvement of the TMJ on panoramic radiographs of children with JIA. Facial growth as judged on cephalometric radiographs was also evaluated. All the findings were related to medical treatment and disease activity over time. We found that adult patients with JIA report more pain and dysfunction in the orofacial region compared with healthy controls. Our study shows associations between orofacial signs, symptoms and overall disease activity in children with JIA. TMJ condylar alterations on panoramic radiographs are fairly common and active disease appears to increase the risk of alterations despite medication. Children with JIA seems to have a changed growth pattern compared with a healthy reference group and patients with condylar alterations have more retrognathia and posterior rotated mandibles. An early TMJ diagnosis in children with JIA is important in order to prevent a negative effect on the TMJs. There is a lack of consensus on when and how to treat JIA in terms of the TMJ. Longer follow-up studies and further prospective studies with the emphasis on the progress of TMJ arthritis and the influence on facial growth are necessary.

**Keywords:** children, adults, juvenile rheumatoid arthritis, retrospective, temporomandibular joint

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- IV. Cedströmer A-L, Andlin-Sobocki A, Berntson L, Abbu N, Hedenberg-Magnusson B, Dahlström L. Facial growth in juvenile idiopathic arthritis. Submitted



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