

Double-jointed adolescents at risk for joint pain

February 28 2013

A prospective study by U.K. researchers found that adolescents who are double-jointed—medically termed joint hypermobility—are at greater risk for developing musculoskeletal pain as they get older, particularly in the shoulders, knees, ankles and feet. Findings published in *Arthritis & Rheumatism*, a journal of the American College of Rheumatology (ACR), indicate that children with joint hypermobility are approximately twice as likely to develop pain at these joints.

When ligaments are loose (ligamentous laxity) it may cause joints to extend beyond the normal range (hypermobility), with studies showing a possible genetic basis. However, when genetic causes are not found and [joint pain](#) is present, doctors may use the term 'benign joint hypermobility syndrome.' Several studies have shown that joint pain is common in children with hypermobility, with some reports as high as 74% of children with joint hypermobility experiencing pain. Yet, other research suggests that while musculoskeletal pain is a frequent complaint in [adolescents](#), it is no more common in those with joint hypermobility.

"With such conflicting evidence we set out to determine whether adolescents with joint hypermobility are at risk of developing musculoskeletal pain," explains lead author Professor Jon Tobias from the University of Bristol, UK. In a study funded by [Arthritis Research UK](#), the team recruited [participants](#) from the Avon Longitudinal Study of Parents and Children (ALSPAC), also known as Children of the 90s. Joint hypermobility was determined at roughly age 14 by a Beighton score of 6 or more out of a possible 9. Individual joints were determined

to be hypermobile if, for example, the [knees](#) could be bent backwards or the thumbs could touch the wrist. At nearly age 18, participants were evaluated for joint pain by questionnaire.

Analysis of participants with complete data was conducted, with 1267 boys and 1634 girls evaluated. Approximately 5% of participants were hypermobile at age 14, and at age 18 close to 45% of participants reported any pain lasting one or more days. Joint hypermobility was associated with approximately a two-fold increased risk of moderately severe pain at the shoulder, knee, ankle and foot. Interestingly, this increased risk was particularly marked in obese participants, with over a ten-fold increased risk of knee pain observed in obese participants with hypermobility, possibly reflecting the role of mechanical factors.

Professor Tobias concludes, "Our study provides the first prospective evidence that adolescents who display joint hypermobility are at increased risk of developing musculoskeletal pain as they get older, particularly in the shoulder, knee, ankle or feet. Further investigation of increased joint pain in teens is warranted to determine if the long-term effects of joint hypermobility puts them at risk for developing osteoarthritis later in life."

More information: "Hypermobility is a Risk Factor for Musculoskeletal Pain in Adolescence: Findings from a Prospective Cohort Study." Jonathan H Tobias, Kevin Deere, Shea Palmer, Emma M Clark, Jacqui Clinch. *Arthritis & Rheumatism*; Published Online: February 28, 2013 ([DOI: 10.1002/art.37836](https://doi.org/10.1002/art.37836)).

Provided by Wiley

Citation: Double-jointed adolescents at risk for joint pain (2013, February 28) retrieved 23 April

2024 from <https://medicalxpress.com/news/2013-02-double-jointed-adolescents-joint-pain.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.