

School-age girls with obesity are more likely to experience joint and muscle pain, finds study

March 12 2024



Credit: Pixabay/CC0 Public Domain

Girls with obesity are more likely than children with a healthy weight to experience pain in their bones, joints, muscles, ligaments or tendons,

according to research by Queen Mary University of London. The same did not apply to boys.

The Queen Mary researchers hope their findings will raise awareness that obesity may contribute to musculoskeletal problems in [children](#).

In the study, published today in *Archives of Disease in Childhood*, researchers analyzed anonymized information on 120,000 children, linking data from the National Child Measurement Programme with GP records. They found that girls with obesity were 1.7 times more likely than those with a healthy weight to have at least one GP consultation for a musculoskeletal symptom or diagnosis.

Previous research has indicated a link between musculoskeletal problems and obesity in children, but this study is the first to observe the association within a large, ethnically diverse population in the UK, with high levels of childhood obesity and deprivation.

Knee pain was the most common symptom reported in the study, followed by back pain. The authors note that [musculoskeletal problems](#) in this context may be caused by excess weight placing additional stress on the body's joints, but more research is needed to understand why this results in an increase in problems for girls and not boys.

The National Child Measurement Programme is a Government initiative whereby children of primary school age in England are weighed and measured at school by [health professionals](#). The program gathers data to understand long-term trends in childhood obesity and inform national and local authority policies.

Nicola Firman, Health Data Scientist at Queen Mary University of London, commented, "Our findings demonstrate the value of linking and studying anonymized health data—without knowing the identity of any

child, we were able to produce important insights into the consequences of obesity for health during childhood.

"We hope our findings will increase awareness of the significance of poor musculoskeletal health, and drive more research into understanding the link with childhood obesity. More needs to be done at policy level to support families to prevent obesity and potentially reduce the risk of musculoskeletal pain."

Victoria King, Director of Funding and Impact at Barts Charity, added, "...the REAL-HEALTH team at Queen Mary is using anonymized health data to gain insights and build tools that are directly impacting health outcomes locally. We are excited to see the results of this first-of-its-kind study from the team, showing an association between [childhood obesity](#) and musculoskeletal disorders in a diverse UK population. Building a stronger evidence base on the possible causes of joint and muscle pain could lead to policy changes that will improve the health of children in East London, as well as nationally."

More information: Are children living with obesity more likely to experience musculoskeletal symptoms during childhood? A linked longitudinal cohort study using primary care records., *Archives of Disease in Childhood* (2024). [DOI: 10.1136/archdischild-2023-326407](https://doi.org/10.1136/archdischild-2023-326407)

Provided by Queen Mary, University of London

Citation: School-age girls with obesity are more likely to experience joint and muscle pain, finds study (2024, March 12) retrieved 27 April 2024 from <https://medicalxpress.com/news/2024-03-school-age-girls-obesity-joint.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.