

Physical activity during youth may help reduce fracture risk in old age

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Get out there and regularly kick that soccer ball around with your kids, you may be helping them prevent a broken hip when they are older, say researchers presenting their work at the American Orthopaedic Society for Sports Medicine's Specialty Day in Chicago, IL.

"According to our study, exercise interventions in childhood may be associated with lower fracture risks as people age, due to the increases in peak bone mass that occurs in growing children who perform regular physical activity," said lead author, Bjorn Rosengren, MD, PhD of Skane University Hospital, Malmo, Sweden.

Rosengren and his colleagues conducted a population-based controlled exercise intervention for six years in children age 7-9 years in Malmo, Sweden. In the intervention group 362 girls and 446 boys received 40 minutes of daily physical education at school. The control group of 780 girls and 807 boys received 60 minutes of physical education per week. Researchers registered incident fractures in all participants and followed [skeletal development](#) annually. During the time of the study there were 72 fractures in the intervention group and 143 in the control group resulting in similar fracture risks. The increase in spine [bone mineral density](#) was higher in both the boys and girls in the intervention group.

During this same time, researchers performed a retrospective cross-sectional study of 709 former male athletes with a mean age of 69 years and 1,368 matched controls with a mean age of 70 years to determine how many had suffered fractures and rates of [bone density loss](#). Within

the former athletes group, bone mass density dropped only minimally from +1.0 to +0.7 standard deviations compared to the control group.

"Increased activity in the younger ages helped induce higher [bone mass](#) and improve skeletal size in girls without increasing the [fracture risk](#). Our study highlights yet another reason why kids need to get regular daily exercise to improve their health both now and in the future," said Rosengren.

Provided by American Orthopaedic Society for Sports Medicine

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