

Extra physical education classes may benefit bone health in girls, study shows

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Moderate to high impact sports such as gymnastics, basketball, or football have been shown to benefit bone mass, structure and strength - with benefits particularly apparent during pre-and early adolescence.

A long-term study carried out in four Swedish schools evaluated whether extra [physical education](#) classes would have an [impact](#) on bone parameters in growing children. The seven-year study specifically measured the impact of school-based exercise on tibia cortical bone mass distribution.

A total of 170 children (72 [girls](#) and 98 [boys](#)) from one school were provided with 200 minutes of physical education per week, and three other schools (44 girls and 47 boys) continued with the standard 60 minutes. The participating schools were within the same geographic area, with a similar socioeconomic and ethnic structure.

The researchers found that the 7-year moderately intense school-based physical activity intervention, initiated pre-puberty, was associated with higher tibia cortical bone strength accompanied by region-specific gains in [cortical bone](#) mass distribution in girls, but not in boys. Girls had 2.5% greater cortical thickness and 6.9% greater polar stress-strain index (SSI) at the 66% tibia, which was accompanied by significantly greater cortical volumetric bone mineral density compared to controls (all P

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