

Childhood fractures do not predict future fractures

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Childhood fractures are common. Their clinical relevance to osteoporosis and fractures in later life is unclear. The aim of this study [1] was to determine the predictive risk of childhood fracture on the risk of fracture in later life. Men and women >50 y of age were recruited from population registers for participation in the European Prospective Osteoporosis Study (EPOS). Subjects completed an interviewer-administered questionnaire that included questions about previous fractures and the age at which the first of these fractures occurred. Lateral spine radiographs were performed to ascertain prevalent vertebral deformities. Subjects were followed prospectively by postal questionnaire to determine the occurrence of clinical fractures. A subsample of subjects had BMD measurements performed. A cox proportional hazards model was used to determine the predictive risk of childhood fracture between the ages of 8 and 18 y on the risk of future limb fracture and logistic regression was used to determine the association between reported childhood fractures and prevalent vertebral deformity.

A total of 6451 men (mean age, 63.8 y) and 6936 women (mean age, 63.1 y) were included in the analysis. Mean follow-up time was 3 y. Of these, 574 (8.9%) men and 313 (4.5%) women reported a first fracture (any site) between the ages of 8 and 18 y. A recalled history of any childhood fracture or forearm fracture was not associated with an increased risk of future limb fracture or prevalent vertebral deformity in either men or women. Among the 4807 subjects who had DXA measurements, there was no difference in bone mass among those subjects who had reported a childhood fracture and those who did not.

These data suggest that self-reported previous childhood fracture is not associated with an increased risk of future fracture in men or women.

1. Pye SR et al. *J Bone Miner Res.* 2009;24:1314–1318.

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Childhood fractures are common. Their clinical relevance to osteoporosis and fractures in later life is unclear. In a population of European men and women aged more than 50, a recalled history of any childhood fracture or forearm fracture was not associated with an increased risk of future limb fracture.

Among the subjects who had DXA measurements, there was no difference in bone mass among those subjects who had reported a childhood fracture and those who did not.

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Influence of childhood fracture on risk of future fracture in men and women			
	Any incident fracture [HR (95% CI)]	Incident limb fracture [HR (95% CI)]	Prevalent vertebral deformity [OR (95% CI)]
Men			
Any fracture aged 8-18 y			
No	Referent	Referent	Referent
Yes	1.1 (0.7, 1.7)	1.1 (0.6, 2.0)	0.8 (0.6, 1.1)
Women			
Any fracture aged 8-18 y			
No	Referent	Referent	Referent
Yes	0.7 (0.4, 1.1)	0.7 (0.4, 1.3)	1.1 (0.8, 1.6)