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PubMed Results

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1. J Pediatr Endocrinol Metab. 2011;24(3-4):147-53.

A nutritional intervention study with hydrolyzed collagen in pre-pubertal spanish children: influence on bone modeling biomarkers.

[Martin-Bautista E](#), [Martin-Matillas M](#), [Martin-Lagos JA](#), [Miranda-Leon MT](#), [Muñoz-Torres M](#), [Ruiz-Requena E](#), [Rivero M](#), [Quer J](#), [Puigdueta I](#), [Campoy C](#).

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Abstract

AIM:

The aim of the study was to investigate the influence of dietary intake of commercial hydrolyzed collagen (Gelatine Royal) on bone remodeling in pre-pubertal children.

METHODS:

A randomized double-blind study was carried out in 60 children (9.42 +/- 1.31 years) divided into three groups according to the amount of partially hydrolyzed collagen taken daily for 4 months: placebo (G-I, n=18), collagen (G-II, n=20) and collagen+calcium (G-III, n=22) groups. Analyses of the following biochemical markers were carried out: total and bone alkaline phosphatase (tALP and bALP), osteocalcin, tartrate-resistant acid phosphatase (TRAP), type I collagen carboxy-terminal telopeptide, lipids, calcium, 25-hydroxyvitamin D, insulin-like growth factor-1 (IGF-1), thyroid-stimulating hormone, free thyroxin and intact parathormone.

RESULTS:

There was a significantly greater increase in serum IGF-1 in G-III than in G-II ($p < 0.01$) or G-I ($p < 0.05$) during the study period, and a significantly greater increase in plasma tALP in G-III than in G-I ($p < 0.05$). Serum bALP behavior significantly ($p < 0.05$) differed between G-II (increase) and G-I (decrease). Plasma TRAP behavior significantly differed between G-II and G-I ($p < 0.01$) and between G-III and G-II ($p < 0.05$).

CONCLUSION:

Daily dietary intake of hydrolyzed collagen seems to have a potential role in enhancing bone remodeling at key stages of growth and development.

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