

Accelerated Bone Maturation in Children

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It is well-known that metabolic changes in children, including insulin resistance, may be responsible for accelerated biological maturation, manifested as accelerated bone age. This may lead to hypertension and cardiovascular disease in the future. A recent study reports that advanced skeletal maturation should be considered an [independent marker for the development of primary hypertension](#) (PH) in children.¹

This was a cross-sectional control study of children diagnosed with PH vs. normotensive control subjects to examine the prevalence of advanced bone age (BA) and its role in predicting PH in children and adolescents. The study utilized dual X-ray absorptiometry-derived hand scans of 54 newly diagnosed children and adolescents with PH and 54 healthy controls matched for body mass index, age and sex. Chronological age (CA), body height, body weight, BMI and blood pressure were assessed. Results were as follows:

Ossification Centers and Epiphyseal Growth-Plate Maturation of the Carpals, Including the DIPS and PIPs*