

## New Insight into Growth in Infants: A Transient Testosterone Surge

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When we find that new ideas for possible pathophysiology of common health issues are being generated, we love it when we can share them in our journal. This week, one such idea involves the discovery of transient activation of the hypothalamic-pituitary-gonadal axis in early infancy resulting in a surge in sex steroids or what might be called a “mini-puberty”. In the case of the study we are publishing this week, Kiviranta et al. ([10.1542/peds.2015-3561](#)) report on a proposed surge in testosterone during infancy (which is higher in boys than girls) and may be responsible for the regulation of initial linear growth.

The authors did serial measures of urinary testosterone and estradiol levels along with serum IGF-1 levels in 84 infants who had height measurements from birth to 12 months. The results show growth velocity at its highest with boys in association with their transient surge in testosterone (also seen but less strongly in the infant girls studied).

So what does this surge mean? To better assess the importance of this mini-puberty, we have asked pediatric endocrinologists Dr. Ken Copeland and Steven Chernausek to lend a hand, oops-we mean a hand, ([10.1542/peds.2016-1301](#)) in sharing their thoughts on the meaning of this hormonal surge and whether it or other things might be responsible for the increase found in growth velocity in association with that surge. Rather than try to capture how fascinating the study and commentary are, we hope you read them for yourselves and perhaps gain a new perspective on why some infants seem to grow faster and taller than others.

### Further Reading

- [Growth and Cognitive Development in International Adoptees](#)
- [Pediatrics on Facebook](#)
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