

## Society for Endocrinology media release



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### **Society for Endocrinology response to study in *PNAS* on testosterone and fatherhood**

**Professor Ashley Grossman, Society for Endocrinology spokesperson and Professor of Endocrinology at the University of Oxford said:**

“Testosterone is the major hormone produced by males and is responsible for producing the male body shape, the distribution of hair in men (and the loss of head hair!), and also sexual interest and activity. There is also reasonable evidence that the production of testosterone by the male foetus ‘masculinises’ the brain. However, little has been understood about changes in testosterone in adult men except in serious disease states, other than the very slight fall with age above the age of 25. If there is excessive physical trauma or disease, or (very) excessive exercise, then the body will turn off the reproductive axis: in a sense it is saying ‘we have more to worry about than reproduction at the moment’. However, for the normal male most endocrinologists consider that ‘enough is enough’, and once testosterone is within the normal range, changes within this range are of little importance.

“This recent study from a cohort of men followed in the Philippines adds to the small but increasing amount of evidence that these views are much too simplistic. These researchers followed a group of 624 young men and correlated their chances of finding a partner with their testosterone levels. They report that the men who became ‘partnered fathers’ were those with significantly higher levels of testosterone; testosterone predicted both having a partner and becoming a father. Equally fascinating, they also noted that following ‘fathering’ the testosterone levels fell, especially in those with very young babies and in those fathers with most child care responsibilities. These are critical studies, as other cross-sectional studies could be construed as showing that men with lower testosterone levels were more likely to be caring. These findings suggest a different cause-and-effect relationship: fathering actually appears to lower testosterone.

“What is the significance of these findings? I think they are two-fold. Firstly, higher levels of testosterone are associated with reproductive success, which from a Darwinian perspective may make sense. But in addition, the male reproductive axis may be attenuated by the presence of a child and more so as the intensity of child care increases. This shows the hormonal and behavioural trade-off between mating and parenting, one requiring a high and the other a low testosterone level. Life and biology may be much more subtle and adaptable than we had previously thought.”

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Notes to editors

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The full paper this statement is in response to can be found at: Gettler et al. Longitudinal evidence that fatherhood decreases testosterone in human males. *PNAS*, doi: [10.1073/pnas.1105403108](https://doi.org/10.1073/pnas.1105403108)

The **Society for Endocrinology** is Britain's national organisation promoting endocrinology and hormone awareness. For general information, please visit our website: <http://www.endocrinology.org>. For more information on hormones, visit our public information website, **You & Your Hormones**: [www.yourhormones.info](http://www.yourhormones.info)