



Paternal Pops Testosterone

Testosterone levels lower when a newborn is in the house

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Women's bodies obviously change physically in preparation for caring for newborns. Some men experience biological changes as well.

A new study from the Philippines indicates that men's testosterone level temporarily lowers upon arrival of a new baby. The median testosterone level drop for new fathers was 26 percent in the daytime and 34 percent in the evening.

Christopher W. Kuzawa, co-author of the study and associate professor of anthropology in the Weinberg College of Arts and Sciences and faculty fellow at the Institute for Policy Research at Northwestern reports that humans are unusual among mammals because children are dependent upon parents for protection and feeding for over ten years, and suggests that this study shows that men are "wired" for the effort.

The study followed a group of 624 males aged 21.5 to 26 years old for 4.5 years in the Philippines. Baseline measurements of testosterone in these men showed that those with the highest levels during the day were the most likely to become fathers during the course of the study. It was later shown that these same men experienced a larger decline in daytime (26 percent) and evening (34 percent) testosterone when compared to the men in the study who remained single non-fathers.

In addition, the men reporting more than three hours a day of childcare also had a statistically significant drop in testosterone compared to the men who weren't involved in childcare. The findings suggest that fathers may experience a substantial and temporary decline in testosterone levels when they bring home a newborn.

Lee Gettler, a doctoral candidate in anthropology at Northwestern and co-author of the study explains that men in their study with high testosterone were actually more likely to become fathers, and once they did so, their testosterone dropped dramatically which, to the study authors, means they are designed for child care when their offspring are infants.

Parviz Kavoussi, M.D., fellowship-trained in male infertility and andrology, says to dailyRx, "I congratulate the authors on their efforts to associate a drop in testosterone level to men who become fathers. I do believe that the mind and human circumstances play a significant role in human physiology, but solid proof is hard to come by."

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He goes on to say, "We know that low testosterone can actually induce irritability, worsened mood, and decrease sex drive so it may not make for the best partner in a relationship or for the most nurturing father if the level drops to a significantly low level. Low sex drive can just mean decreased interest in sex with one's partner, not necessarily for every woman in the room!"

Additionally, Dr. Kavoussi notes, " Blood levels would have been more reliable (than saliva samples)", for measuring testosterone levels.

He concludes, "It also would have been great to know the values of the pituitary hormones in the men. The pituitary gland is the master of the testicles and secretes FSH and LH which tell the testicles to make sperm and to make testosterone respectively. This would help in the understanding of whether this change in testosterone levels is due to decrease in function by the testicles independently or if the pituitary slows down."

"Longitudinal Evidence That Fatherhood Decreases Testosterone in Human Males" was published in the *Proceedings of the National Academy of Sciences*.

Contributing Expert



Parviz Kavoussi, M.D. is an expert in erectile dysfunction, sexual medicine and male infertility. He is in practice with his infertility specialist father and brother where they pride themselves in being a family that helps others start their families.

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