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By: Stefan Anitei, Science Editor



Michelle Forum

Estrogen Has the Same Effect in Women like Testosterone in Men

Increased competitiveness and power fight

Do you think that only testosterone induces the drive for power and aggressive behavior? Wrong! A new research published in the *Hormones and Behavior* journal shows that estrogen boosts power competition in women just like the male testosterone does, pointing that women have similar levels of competitiveness like men. For instance, estrogen levels boosted in power-motivated women when they were winning and collapsed when they lost, while the hormone's levels varied oppositely in women not interested in power. "The biology of dominance in women has been vastly under-researched. On top of that, it sets up very nice parallels with men and testosterone," said lead author Steven Stanton of the University of Michigan. The research aimed to check if estrogen or testosterone were involved in female competitiveness. Hormone levels were assessed from saliva samples. "We put women in this study in a face-to-face contest where they competed on a computer task for 10 rounds. Following each round, they were told whether they won or lost and they could watch each other's reaction to winning or losing. Even before the contest started, we have this measure of power motivation or dominance motivation that we use," said Stanton. The subjects were presented with a neutral image and were consequently asked to describe it shortly. "We look for themes that are related to power. The more power themes that someone writes about, the more power-motivated that we consider them. Estrogen was linked to personality type as well, and the women, mostly in their 20s, were evenly divided. The higher the women were in estrogen, the higher they were in this measure of power motivation," said Stanton. "To sum up, we have found that estradiol (estrogen), but not testosterone, and a non-conscious need for dominance are positively related in women. This positive relationship is strongest in single women (and) women not taking oral contraceptives," wrote the authors. "Those who were not power-motivated, if they won, their estrogen went down. If they lost, their estrogen went up a little bit. Estrogen is very behaviorally potent and is actually a close hormonal relative to testosterone. In female mammals, estrogen has been tied to dominance, but there has been scant research examining the behavioral roles of estrogen in women," added Stanton. The team will check next the effects estrogen has in the behavior of post-menopause women, whose bodies synthesize less estrogen.