

Testosterone on the Team

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Work teams often run into conflicts or generate poor results because of bad decisions. New research findings suggest that those problems might have a biological connection.

A new research [report](#) by psychological scientists Modupe Akinola, Elizabeth Page-Gould, Pranjal Mehta, and Zaijia Liu published online in *Psychological Science* found that testosterone levels are associated with how diverse and homogeneous business teams perform, in opposite ways. Among diverse groups, high testosterone correlates with poor performance and low testosterone correlates with high performance. In homogeneous groups, the effect is reversed such that homogeneous groups with high average testosterone per member perform better than homogeneous groups with low testosterone.

The experimenters measured testosterone via saliva test in 370 MBA students at Columbia University. A week later, the students were divided into teams and given a group task, a computer simulation of running a blood lab. After the students managed their 'labs' for 7 days as a team, the experimenters assessed them on profitability, number of contracts, number of reorders, and group rank relative to other groups. These measures were aggregated to form a single performance metric.

The researchers used an algorithm that considered ethnicity, gender, and country of origin to describe

the diversity of teams.

This research is preliminary, but with added support, may inform management styles for homogeneous and diverse groups. While managers can't control testosterone levels within groups, they can often determine the diversity of a group and can influence the factors that cause performance to dip.

The theory these experimenters put forth for the testosterone-performance relationship is that, in diverse groups, testosterone increases competition and conflict within a group, adversely affecting group performance. Among a homogeneous group, however, testosterone amps up the competition between groups, causing members to up their collective games, coalesce, and do what's best for the group in order to get a win for the team.

The authors caution that the findings are preliminary and need further support.

Of course, testosterone levels predictably vary between men and women. To make sure they were measuring testosterone effects and not numbers of men and women, the researchers controlled for the gender distribution in their analysis. To do this, they compared groups that had the same numbers of men and women and calculated the effects of testosterone within those similar groups, then calculated the effects overall.

Reference

Akinola, M., Page-Gould, E., Mehta, P. H., & Liu, Z. (2018). Hormone-Diversity Fit: Collective Testosterone Moderates the Effect of Diversity on Group Performance. *Psychological Science*. doi:[10.1177/0956797617744282](https://doi.org/10.1177/0956797617744282)