

Questioning the hype around oxytocin, the ‘hug hormone’

A new study offers two reasons to be cautious about some of the claims made for the role of the hormone [oxytocin](#) in human behavior.

The paper, [out now in PLoS ONE](#), from researchers James C. Christensen and colleagues, who are based at the U.S. Air Force Research Laboratory in Ohio, show that the military are interested in oxytocin at all is perhaps a testament to the huge amount of interest that this molecule has attracted in recent years. Oxytocin has been called the “hug hormone”, and is said to be involved in such nice things as love and trust. But according to Christensen et al., quite a lot of previous oxytocin research may be flawed.

Their paper is in two parts. Christensen et al. first show that the only accurate way to measure oxytocin levels in blood is by performing plasma extraction before chemical analysis. Using unextracted plasma, they find, leads to seriously distorted measures.

That’s a worrying result, given that many previous studies have used unextracted plasma samples to estimate oxytocin, and many of these reported finding correlations with human behavior e.g. trust.

In the second half of their study, Christensen et al. measured (extracted!) plasma oxytocin levels in people while they played the [Prisoner’s Dilemma game](#), a task which involves decisions to trust (or not) a partner. The hypothesis (based on previous work [e.g.](#)) was that oxytocin would predict people’s tendency to trust or to distrust, and/or that trusting would itself raise oxytocin levels.

So Christensen et al. took six blood samples from each volunteer, before, during and after the game. However, they found no significant correlations between oxytocin and behavior.

Read full, original article: [Oxytocin: Two New Reasons For Skepticism](#)