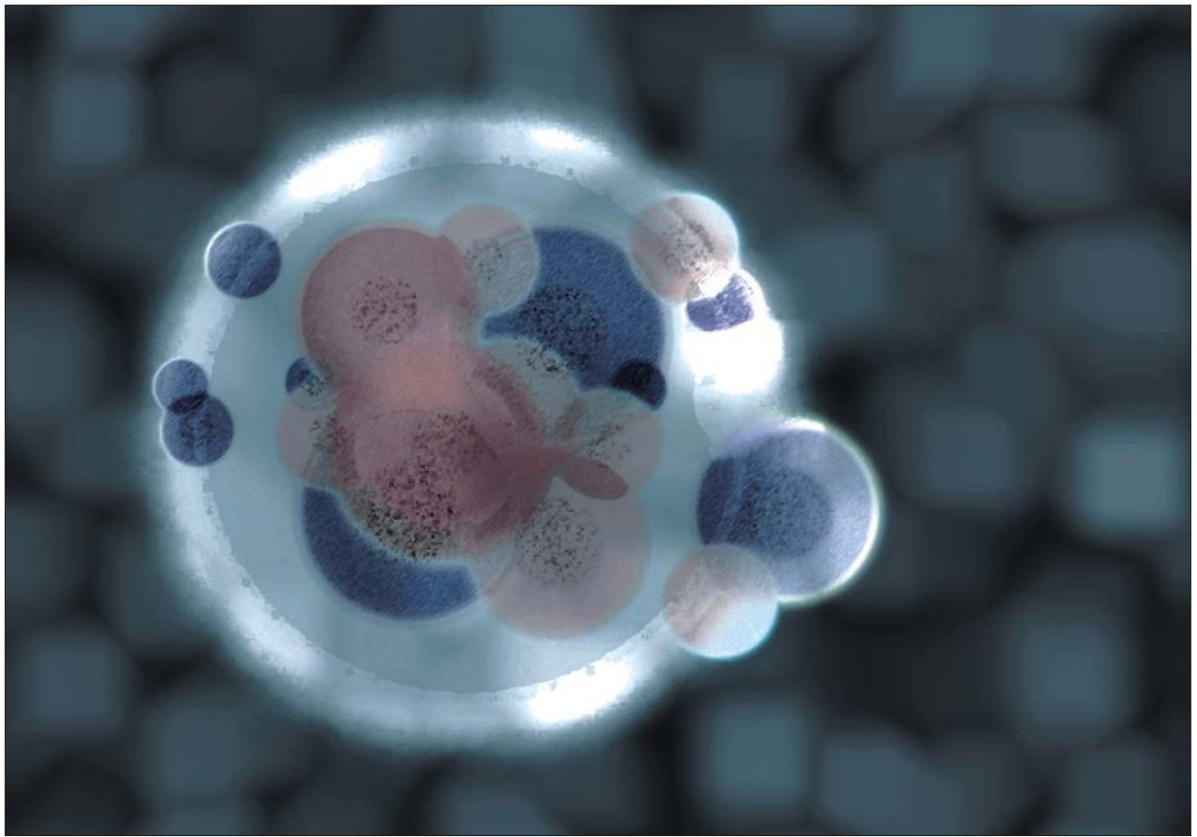




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Hormone Oxytocin Bolsters Childhood Memories of Mom's Affections

Researchers have found that the naturally-occurring hormone and neurotransmitter oxytocin intensifies men's memories of their mother's affections during childhood. The study was published November 29 in Proceedings of the National Academy of Sciences.

Researchers at the Seaver Autism Center for Research and Treatment at Mount Sinai School of Medicine wanted to determine whether oxytocin, a hormone and neurotransmitter that is known to regulate attachment and social memory in animals, is also involved in human attachment memories. They conducted a randomized, double-blind, placebo-controlled, cross-over trial, giving 31 healthy adult men oxytocin or a placebo delivered nasally on two occasions. Prior to administering the drug/placebo, the researchers measured the men's attachment style. About 90 minutes after administering the oxytocin or the placebo the researchers assessed participants' recollection of their mother's care and closeness in childhood.

They found that men, who were less anxious and more securely attached remembered their mothers as more caring and remembered being closer to their mothers in childhood when they received oxytocin, compared to when they received placebo. However, men who were more anxiously attached remembered their mothers as less caring and remembered being less close to their mothers in childhood when they received oxytocin, compared to when they received placebo. These results were not due to more general effects of oxytocin on mood or well-being.

"These results may seem surprising because researchers have assumed that the neuromodulator oxytocin has ubiquitous positive effects on social behavior and social perception in humans," said Jennifer Bartz, PhD, Assistant Professor, Psychiatry, Mount Sinai School of Medicine, and lead author of the study. "The fact that oxytocin did not

make all participants remember their mother as more caring, but in fact intensified the positivity or negativity of the men's pre-existing memories, suggests that oxytocin plays a more specific role in these attachment representations. We believe that oxytocin may help people form memories about important social information in their environment and attach incentive value to those memories.

"However, we do not know whether oxytocin, when administered in drug form, increases a person's ability to accurately recall their mother's affections in childhood, or sets in motion a biased search for memories that support their more general beliefs about close relationships."

The ability to bond with our caregivers early in life has long been thought to be critical to survival because these bonds insure caregiver protection for the otherwise defenseless infant.

"We know very little about the biological mechanisms that support human attachment bonds, but understand that oxytocin regulates attachment in animals, and plays a specific role in forming social memories," said Dr. Bartz. "Our study suggests that oxytocin may similarly play a key role in human attachment by modulating these early memories of mom."

This research was funded by the Beatrice and Samuel A. Seaver Foundation. Additional study sites include Columbia University and McGill University.

Editor's Note: This article is not intended to provide medical advice, diagnosis or treatment.