

TAKING A CLOSER LOOK:

THE SCIENCE BEHIND SEX AND BONDING

Chemicals Released in Sex

1. Dopamine
2. Opioids
3. Oxytocin

Oxytocin and Bonding

1. Oxytocin is released with affection and sexual contact. It increases bonding in a _____ relationship.

2. Oxytocin stimulates the reward center of the brain like a drug. This can partially explain why losing a partner one is bonded with causes _____ and mourning upon separation or death.
3. High oxytocin levels in a man causes him to favor his partner's face over that of other attractive women¹ and stimulates him to keep a bigger social distance from other attractive women.²
4. Higher oxytocin level in men and women create a more positive outlook of their overall relationship characteristics.³
5. One study established a strong association between number of sex partners and later _____ abuse, especially for women.⁴
6. We need to train ourselves and our young men and women to not look for that "oxytocin-release" through sex with just anyone but wait for the woman or man God has chosen for them to fulfill His purposes of _____ bonding and fulfillment in marriage.
7. If having multiple sexual partners before marriage lessens the bonding and fulfillment within marriage, men and women engaging in this behavior _____ one another and their future spouses. 1 Thessalonians 4:4-8

¹ Scheele D, Wille A, Kendrick KM, Stoffel-Wagner B, Becker B, Güntürkün O, et al. Oxytocin enhances brain reward system responses in men viewing the face of their female partner. *Proc Natl Acad Sci USA*. (2013) 110:20308–13. doi: 10.1073/pnas.1314190110.

² Scheele D, Striepens N, Güntürkün O, Deutschländer S, Maier W, Kendrick KM, et al. Oxytocin modulates social distance between males and females. *J Neurosci*. (2012) 32:16074–9. doi: 10.1523/JNEUROSCI.2755-12.2012.

³ Aguilar-Raab C, Eckstein M, Geracitano S, Prevost M, Gold I, Heinrichs M, et al. Oxytocin modulates the cognitive appraisal of the own and others close intimate relationships. *Front Neurosci*. (2019) 13:714. doi: 10.3389/fnins.2019.00714.

⁴ Ramrakha S, Paul C, Bell ML, Dickson N, Moffitt TE, Caspi A. The relationship between multiple sex partners and anxiety, depression, and substance dependence disorders: a cohort study. *Arch Sex Behav*. (2013) 42:863–72. doi: 10.1007/s10508-012-0053-1.

Get EQUIPPED: Redemptively Overcoming Abortion in the Church
SESSION 3 – WORKBOOK
GOD’S WORD ON SEX

Two Sexual Scenarios for a Woman

1. Woman feels safe and _____ - _____ over the long-term (loved in a good relationship) =

2. Woman does _____ feel safe or cared-for (in an uncommitted or poor marital relationship) =
