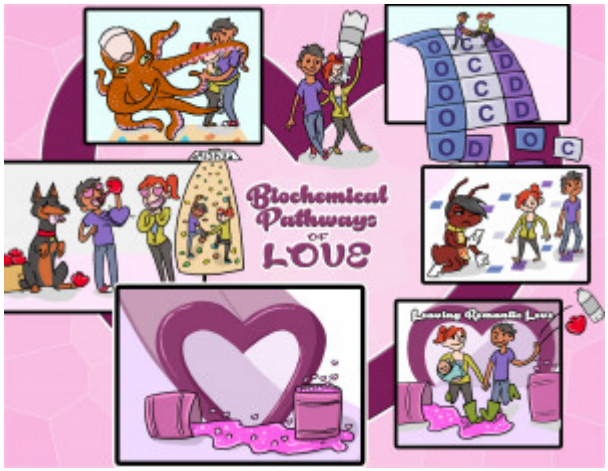
Biochemical Pathways of Love

The biochemical pathways of love are interesting, and describe the progression a relationship from the perspective of neurotransmitters and their effects on the brain. A new couple first is flooded with dopamine, leading to feelings of excitement and risky activities. Later, the neurotransmitter oxytocin promotes the feelings of bonding. After more time together in a relationship, serotonin levels decrease in lovers, and resemble levels seen in patients with OCD. These lovers are obsessively in love. When treated with antidepressant medication, OCD symptoms are relieved, but the feelings of love fade and lovers drift apart. Over time, as the relationship matures, lovers become tolerant to the chemicals influencing their love and romantic love fades. It is from this point on that more mature, conscious relationships can grow.



PLAY PICMONIC

Dopamine

Doberman

Researchers found that when lovers looked at eachother, dopamine flooded the brain. This is the same neurotransmitter that is linked with the sensations of reward and pleasure in the brain, and was viewed as the brain's "love potion."

Leads to Excitement and Risk-taking

Excited and taking Risks together

Dopamine is a hormone and neurotransmitter, when released in the right proportions, leads to feelings of exhilaration, increased energy, and motivation to win rewards. This is why couples newly in love can feel a sensation of excitement and risk-taking when they are together.

Oxytocin

Octopus-toe

Oxytocin is a hormone that promotes bonding. Notably, it is released by mothers who are breastfeeding their newborns. Researchers believe that it is the release of this hormone that leads to a feeling of closeness or bonding between partners in a relationship.

Promotes a feeling of Connection

Connecting the Lovers

Oxytocin is a hormone which promotes a feeling of connection between partners. It makes partners feel much closer to each other, and it is thought that in relationships that crumble once the high (of dopamine) is gone, there is a high chance the couple has not found a way to stimulate or sustain oxytocin release.

Serotonin

Silver-tonic

Serotonin is a major neurotransmitter in the brain, responsible for obsessiveness and happiness.

Lovers have same level as those with OCD

Lovers on OCD-tiles

Researchers found that subjects who had fallen in love in the past 6 months, and obsessed over this loving relationship had comparable serotonin levels as those with OCD, linking this neurotransmitter to obsessiveness.

Antidepressants can remove OCD and Passion

Ant-tie-depressed emo changing OCD-tiles and Passion

Furthermore it was found that drugs like Prozac, Zoloft and Paxil, which are antidepressant medications that also treat OCD, weren't helpful for relationships. As these medications can cause the symptoms of OCD to dissipate, similarly, lovers who had been in relationships had dulled love and libido. Thus, these antidepressant drugs, which increase serotonin levels (which is supposed to make you happy), lead to relationships going stale.

Romantic love fades due to tolerance for chemical

Less Passionate Lovers with Tolerance for Chemicals

As relationships progress in terms of duration, experience and maturity, the brain becomes sensitized to these floods of neurotransmitters. Thus, romantic love fades due to chemical tolerance, but the relationship progresses. This is because the relationships are no longer under the influence of neurotransmitters influencing thoughts and feelings, but due to conscious decisions to be together.