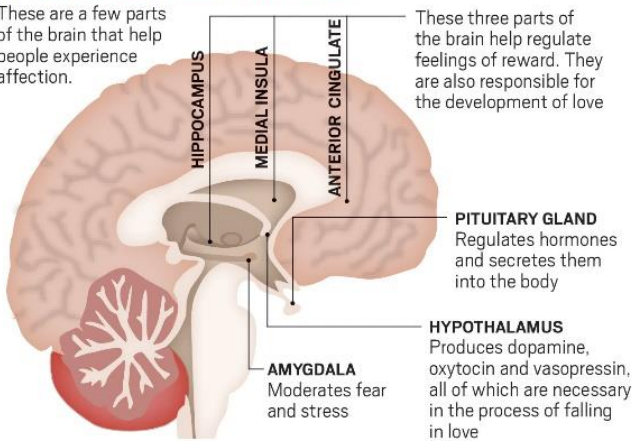


THE SCIENCE OF FALLING IN LOVE

Beyond the love songs, romantic poems, passionate novels and sappy movies, love is the result of complex processes in the body. Here is a breakdown of love's biology and the ways humans experience romance with each other.

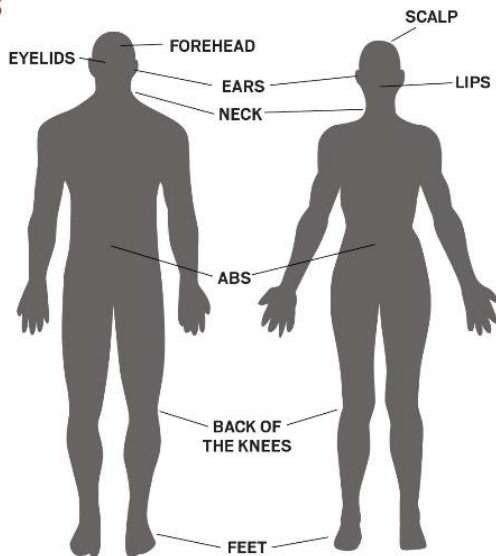
WHERE DOES THE BRAIN LOVE?

These are a few parts of the brain that help people experience affection.



HOT SPOTS

Erogenous zones are parts of the body that are particularly responsive to stimulation, resulting often in sexual excitement. These are popular hot spots on men and women.



SOURCES: "The neurobiology of love" Semir Zeki, heritage.org, census.gov, womensday.com, princeton.edu

FALLING IN LOVE, STEP BY STEP

1. The hypothalamus releases **dopamine** into the body, causing feelings of ecstasy and excitement.

2. As dopamine levels increase, serotonin levels decrease.

↑ Serotonin is responsible for a person's mood and appetite, among other things.

↓ The lower levels of serotonin are similar to levels found in people with obsessive compulsive disorders.

↓ This may result in feelings of obsession or infatuation.

3. Along with dopamine, the body also produces a substance called **nerve growth factor**.

- NGF is more prevalent in people who are newly in love.
- People who are not in love or are in long-term relationships have lower levels of NGF than recent lovers.
- The amount of NGF in the body directly relates to the intensity of romantic feelings.

4. **Oxytocin** and **vasopressin** are responsible for feelings of connection and commitment.

- The **hypothalamus** produces these two hormones.
- They are then stored in the **pituitary gland**, which secretes hormones into the body.
- In times of extreme passion – such as during orgasm – these hormones enter the bloodstream.
- The presence of the two chemicals is often attributed in part to the success of long-term relationships.

5. These hormones affect different parts of the brain. Because of these sections' nearness, certain responses occur:

Activity increases in the romantic core of the brain → The amygdala deactivates.

↓ A person's standards for judging others grow blurry → The person in love feels less stress and fear.

↓ The result is an overall feeling of unity between people in love.

DN GRAPHIC ADAM BAUMGARTNER