

Your Brain on Love

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The old adage is wrong: The way to a man's heart is not through his stomach — it's through his brain. According to recent research on what happens to the brain when you fall in love, the feeling of passion — at least in its most sizzling form — may last no longer than a year. Who would have guessed there's a chemical time limit to feeling the heat?

Pavia University researchers in Rome (a city teeming with romance if there ever was one) have discovered a molecule known as nerve growth factor (NGF) that is responsible for the hot and bothered reactions that fill you with passion. They found far higher levels of NGF in the blood of 58 people who had recently fallen in love than in that of a group of singles and people in long-term relationships.

But after a year with the same lover, the quantity of the "love molecule" in their blood had fallen to the same level as that of the other groups. The molecule, they concluded, has an important role in the chemistry between people at the start of romantic relationships.

What's more, the blood and brain show other reactions to love as well. Anthropologist Helen Fisher, in her book *Why We Love*, suggests the brain is responsible for swooning, stalking, and obsessive behavior associated with romantic love. She believes that romantic love is a basic human drive orchestrated by neurotransmitters and hormones that evolved to ensure we would find mates to raise families with, thereby propagating the species.

Fisher views the bliss we feel when we fall in love as the result of elevated levels of dopamine and norepinephrine, which can result in sleeplessness, exhilaration and single-mindedness, among other things, and low levels of serotonin, which can set the mind racing toward obsession.

What we're feeling in those early throes of passion is an addiction, she says. Fisher found that obsessively thinking about the person was the main characteristic — as much as 90% of day and evening thoughts were centered around their lover.

The discovery of the time-limited activation of the "love molecule" is consistent with Fisher's notion that romance is relatively brief because nature wants you "crazy in love" only until you manage to choose a partner, get married, and conceive.

After children, a different brain chemical reaction creates a stabilizing influence, aimed at binding a couple together long enough to raise their kids. This attachment reaction in long-term relationships is believed to be associated with vasopressin and oxytocin, each doing their own thing in the brain to create a sense of calm and peace. But this same chemical reaction also tends to temper the fires of passion.

Novelty, it turns out, is what stimulates the brain to secrete increased levels of dopamine and norepinephrine, re-activating the spark of love and passion. This may be one of the reasons so many women's magazines focus on the topics of "holding your man" and "keeping the passion alive" by trying new activities together.

Novelty doesn't mean taking foolish risks or living on the edge — although some couples may need to go further out on the risk continuum than others. It can be as simple as going to a new restaurant together, learning a new dance, traveling to a new destination or just altering your everyday patterns.

When we include novelty in our relationship, we're increasing our chances of stimulating feelings of excitement, renewed interest and passion. Coupled with the brain stabilizing chemicals that make us feel safe and secure in our attachment, we can then enjoy the best of both worlds. And we can remember that both our heart and brain may work together, helping us along the way.