

## Low serotonin is not a cause of depression? Controversial study spawns misinformation about the effectiveness of SSRIs

For decades now, common wisdom has held that the more serotonin floating around in your brain, the less likely you are to experience depression and the sunnier your mood and outlook on life. Doesn't that explain the value of selective serotonin reuptake inhibitor (SSRI) antidepressants like Prozac, Zoloft and Paxil, which boost serotonin in the brain?

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Last summer, that belief appeared to be upended by a research paper from scientists at University College London. Published in the respected scientific journal *Molecular Psychiatry*, the report concluded that [low serotonin is \*not\* a cause of depression](#), creating more controversy than any neuroscience paper in recent memory.

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So, what exactly is going on here? How can SSRIs be helping if low serotonin isn't the problem? The (perhaps unsatisfying) answer is that in the brain, things are hardly ever as straightforward as this. The brain is a complex orchestration of many systems working in synchrony, all bumping into and influencing one another through intricate connections. Serotonin levels don't necessarily *need* to be low for SSRIs to be helpful in treating depression; increasing serotonin could alter the function of some other, downstream system, which then leads to improved mood. It is thus entirely possible that SSRIs exert their antidepressant effects in the brain through a mechanism totally different from serotonin.

[\*\*This is an excerpt. Read the full article here\*\*](#)