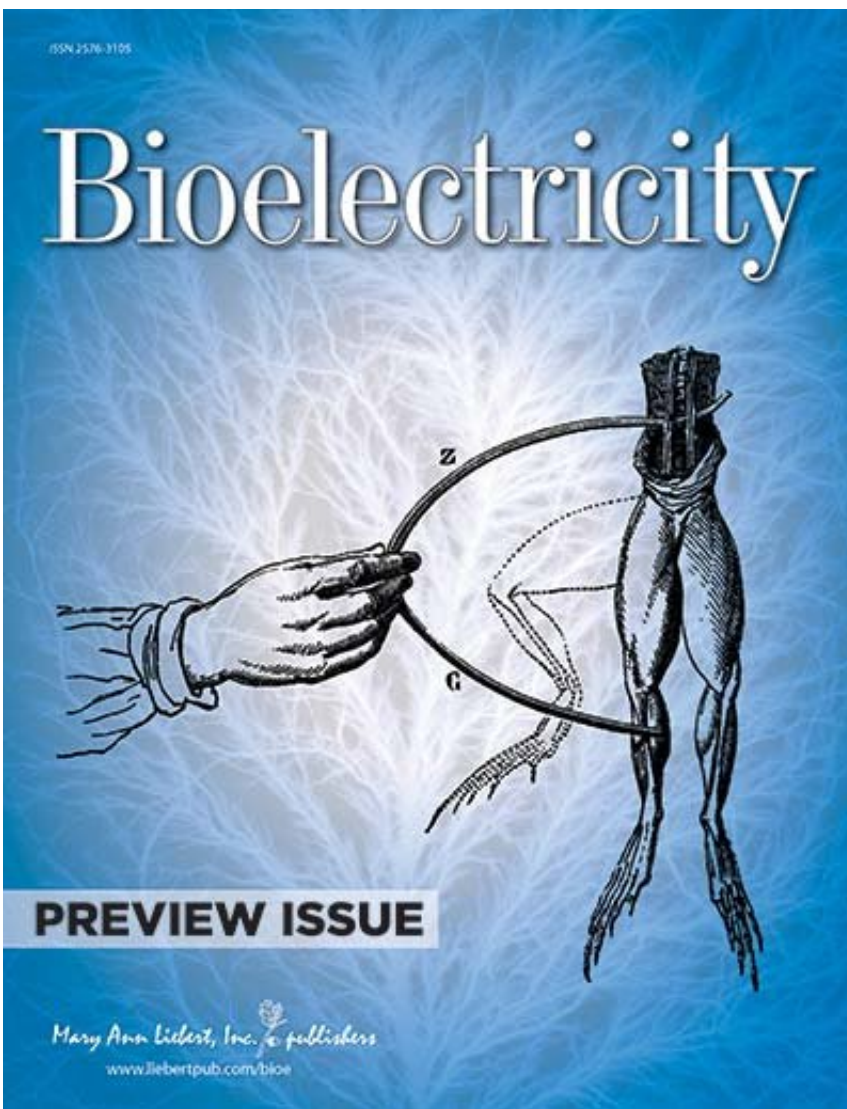


# Does risk of embryonic malformations outweigh benefits of using SSRIs in pregnant women?

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Credit: Mary Ann Liebert, Inc., publishers

A comprehensive new review article presents the most current understanding of the role selective serotonin reuptake inhibitors (SSRIs) play in increased risk of multiple diverse gestational malformations and takes aim at the ongoing debate over whether SSRIs as a drug class can cause these malformations. The article, which also highlights the importance of serotonin—a key mediator of bioelectric control mechanisms—in normal embryonic development, is published in the preview issue of *Bioelectricity*.

Entitled "Selective Serotonin Reuptake Inhibitor Use During Pregnancy and Major Malformations: The Importance of Serotonin for Embryonic Development and the Effect of Serotonin Inhibition on the Occurrence of Malformations," the article was coauthored by Anick Bérard, Ph.D., University of Montreal (Quebec, Canada), Michael Levin, Ph.D., Tufts University (Medford, MA), Thomas Sadler, Ph.D., University of Utah School of Medicine (Salt Lake City), and David Healy, MD, Hergest Unit (Bangor, U.K.).

The researchers examined the body of research related to serotonin, its inhibition using SSRIs, and the relationship to embryonic development and malformations. SSRIs can disrupt [embryonic development](#) in multiple ways, including through its effects on [serotonin levels](#) and on the activity of ion channels in cells, affecting bioelectric mechanisms and serotonergic cell signaling.

"This review is a particularly important contribution to the debate about SSRI use during pregnancy," says Dany Spencer Adams, Editor-in-Chief of *Bioelectricity*, from Tufts University, Medford, MA. "In addition to combining the epidemiological data with relevant evidence from model systems, it incorporates the newly recognized bioelectric mechanisms of SSRI effects, as well as empirical evidence for the role of [serotonin](#) in

embryos prior to the development of the nervous system. It also proposes that widespread belief in the drug's safety could result from the focus on the lower incidence of particular phenotypes, such as heart malformations, rather than recognizing the full variety of [malformations](#) as resulting from a single common cause—disruption of [serotonin signaling](#).

**More information:** Anick Bérard et al, Selective Serotonin Reuptake Inhibitor Use During Pregnancy and Major Malformations: The Importance of Serotonin for Embryonic Development and the Effect of Serotonin Inhibition on the Occurrence of Malformations, *Bioelectricity* (2018). [DOI: 10.1089/bioe.2018.0003](https://doi.org/10.1089/bioe.2018.0003)

Provided by Mary Ann Liebert, Inc

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