

Neurology > Multiple Sclerosis

No Increased MS Relapses for Women on Fertility Treatment

— Findings similar in IVF and other treatments

by [Kate Kneisel](#), Contributing Writer, MedPage Today

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Fertility treatment was not associated with an increased risk of relapse in women with multiple sclerosis (MS) or clinically isolated syndrome (CIS), retrospective data showed.

Across 80 cycles, the mean annualized relapse rate (ARR) 12 months before controlled ovarian stimulation treatment was the same as it was 3 months after (0.26 vs 0.25, $P=0.37$), according to Edith Graham,

MD, of Northwestern University Feinberg School of Medicine in Chicago, and colleagues.

Similar trends were seen for embryo transfer and oral ovulation induction treatments, the researchers reported in *Neurology: Neuroimmunology & Neuroinflammation*.

"Fertility treatments for people with MS are not as risky as we once thought," Graham said in a statement. "We did not see many relapses in our cohort, probably due to the fact that most of the patients were treated with disease-modifying therapies in the year prior."

Some earlier studies have suggested relapses might increase after fertility treatment, especially when a gonadotrophin-releasing hormone (GnRH) agonist stimulation protocol was used. Other research has not reported increased relapse risk. These conflicting results may arise due to changes in stimulation protocols over time, including a shift from GnRH agonist to GnRH antagonist-based protocols, Graham and co-authors suggested.

Because MS tends to develop in women of childbearing age, reproductive concerns are an important part of disease management, noted Barbara Giesser, MD, of Pacific Neuroscience Institute in Santa Monica, California, who wasn't involved with the study.

"Given that some earlier studies have suggested an association between fertility treatment and a greater risk of relapse, I think it's very reassuring for women with MS to know that different types of fertility treatment [can be used] without fear of an increased risk of relapse," Giesser told *MedPage Today*.

Graham and co-authors compared annualized relapse rates during 3 months after fertility treatment with annualized rates 12 months prior. They identified patients with CIS (a first MS episode) or MS ages 18-45 at four large academic MS centers who had at least one fertility treatment from January 2010 to October 2021.

Fertility treatments included controlled ovarian stimulation followed by fresh embryo transfer (also known as in vitro fertilization, or IVF), controlled ovarian stimulation alone, embryo transfer alone, and oral ovulation induction. The primary treatments of interest involved controlled ovarian stimulation.

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The researchers looked at 124 cycles of treatment among 65 MS patients and 9 CIS patients. Overall, 61 patients had IVF, 19 had controlled ovarian stimulation alone, 30 had embryo transfer alone, and 14 had oral ovulation induction. Patients had a mean age of 36 at fertility treatment and an average MS duration of 7.7 years. Most participants (78%) were white.

No cycles with disease-modifying therapy during controlled ovarian stimulation had a relapse at 3 months, compared with an annualized relapse rate of 0.18 in the 12 months before fertility treatment ($P=0.02$). There were no relapses 3 months after embryo transfer alone and one relapse after oral ovulation induction.

For all fertility cycles combined, 37% resulted in pregnancy with live birth, with IVF showing the highest pregnancy success rate. Among 43 controlled ovarian stimulation or IVF cycles that achieved pregnancy, ARR decreased from 0.26 to 0.09 ($P=0.04$) within the first trimester of pregnancy.

The researchers included patients from high-quality centers with a high percentage of patients on effective treatment for MS, observed Daniel Selchen, MD, of Unity Health Toronto in Ontario, Canada, who wasn't involved with the study.

"This study will help alleviate some prior concerns and will also serve to reinforce the emerging trend to more aggressive treatment of women in the extremely important time period surrounding pregnancy," Selchen told *MedPage Today*. "It provides important and welcome information and reassurance for patients undergoing the stresses of fertility treatment and for the clinicians caring for them."

The analysis had several limitations including its retrospective nature, its use of clinically defined relapses, and its limited number of cases with MRI confirmation of new disease activity, Graham and colleagues noted.



[Kate Kneisel](#) is a freelance medical journalist based in Belleville, Ontario.

Disclosures

The study was supported by Northwestern University.

Graham reported financial relationships with Roche Genentech, Novartis, Atara Biotherapeutics, Tavigstock Life Sciences, F. Hoffman-La Roche, and ACP MKSAP; several co-authors also reported disclosures.

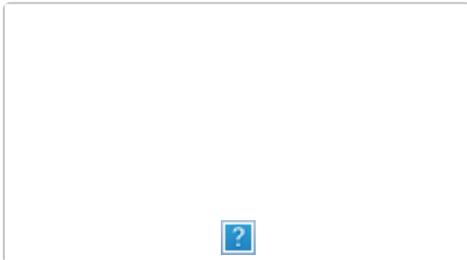
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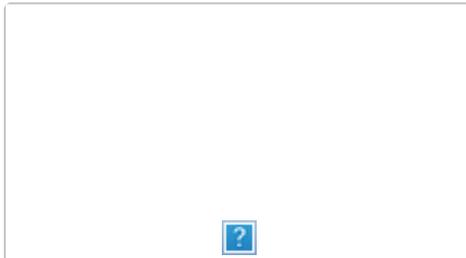
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