



BIONIC

NEWSLETTER

A **B**IOlogic drug safety and effectiveness inter**N**ational pharmacoepidemiologic **I**C study in pregnant women with autoimmune disorders or asthma and their children (BIONIC).



NEWSFLASH

BIONIC'S 1ST STEERING COMMITTEE MEETING

The BIONIC Steering Committee Meeting took place January 26th:

- Joined by Co-PI's Dr. Sonia Grandi and Dr. Cristina Longo, all site leads, 2 patient partners, and project management staff
- Discussed key methodological decisions and provided feedback on the Statistical Analysis Plan (SAP)
- Reviewed project progress and logistics, including site contracts, ethics approvals, data access consideration, patient partner engagement plans, and next steps



BIONIC OBJECTIVES

In women with AD or asthma, who continue versus discontinue biologic use in pregnancy, compare the risks of:

- 1) Maternal complications in, and worsening of disease during, pregnancy.
- 2) Complications in their infants and children.

We also recently applied for several grants aimed at supporting patient engagement activities in BIONIC projects

The BIONIC website is officially in development!



Drs. Grandi and Longo went on our patient partner Amber's podcast to discuss IBD - coming soon!

HIGHLIGHTING RHEUMATOID ARTHRITIS FOR AUTOIMMUNE AWARENESS MONTH

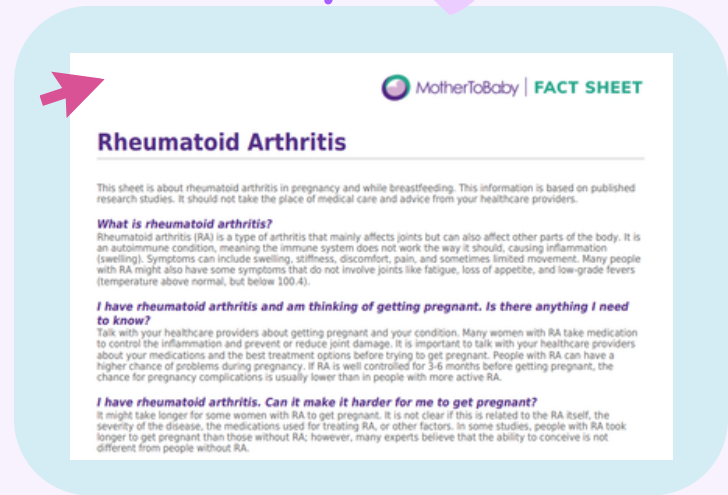
What is Rheumatoid Arthritis (RA)?

- RA is a chronic autoimmune disease where the immune system mistakenly attacks the lining of joints, causing inflammation, pain, and swelling (1-4)
- RA can affect many parts of the body - hands, wrists, feet, eyes, lungs, blood vessels etc.
 - When left untreated it can lead to joint damage, deformity, and reduced function
- RA often occurs in flare-ups, which are periods where symptoms worsen followed by periods of improvement (remission)



RA during Pregnancy:

- During pregnancy, hormone changes in the immune system may improve RA symptoms by reducing inflammation(2)
- Not all women experience this, and some continue to have active disease, increasing the risk of complications such as preterm birth or low birth weight (5)
- After pregnancy, RA symptoms commonly flare as hormone levels drop and the immune system returns to its typical state(1)



Quick Facts



- 12.7 million** women around the world are living with RA (6)
- Up to 60%** of pregnant women experience symptom relief throughout their pregnancy (7)
- 40-90%** of postpartum women experience a flare-up after delivery (8)

RHEUMATOID ARTHRITIS RESOURCES

Supporting women with RA on their reproductive journey:



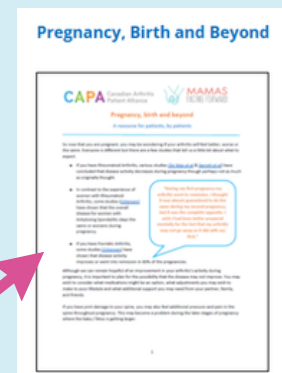
[Source: Arthritis Research Canada](#)

Educational courses on arthritis, associated mental health, and exercise:



[Source: Joint Health](#)

Pregnancy and parenting with arthritis:



[Source: Canadian Arthritis Patient Alliance](#)

Tips for managing RA during pregnancy and after delivery:

1 Work closely with your healthcare team to manage medications - some are safe in pregnancy, while others may need to be changed (2,5)



2 Stay active with gentle, pregnancy-safe exercise (walking, stretching, prenatal yoga etc.) to help reduce joint stiffness, maintain strength and promote overall health during pregnancy (9)



3 During postpartum flare-ups, adjust or restart medications after speaking with your doctor, rest and avoid over-exerting yourself, use heat (to reduce stiffness) or cold (to decrease swelling)(10)



4 Flares and fatigue are common after birth - ask for help and lean on your support system for childcare and daily tasks to reduce physical strain and promote recovery (2,5)

References:

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- (3) Cleveland Clinic. 2024. Rheumatoid Arthritis. Retrieved from: <https://my.clevelandclinic.org/health/diseases/4924-rheumatoid-arthritis>
- (4) Arthritis Society Canada. 2023. Rheumatoid Arthritis. Retrieved from: <https://arthritis.ca/about-arthritis/arthritis-types/rheumatoid-arthritis/>
- (5) MotherToBaby. 2024. Rheumatoid Arthritis. Retrieved from: <https://mothertobaby.org/fact-sheets/rheumatoid-arthritis/>
- (6) Black RJ, Cross M, Haile LM, Culbreth GT, Steinmetz JD, Hagins H, et al. Global, regional, and national burden of rheumatoid arthritis, 1990–2020, and projections to 2050: a systematic analysis of the Global Burden of Disease Study 2021. *The Lancet Rheumatology*. 2023 Oct 1;5(10):e594–610. doi:10.1016/S2665-9913(23)00211-4
- (7) Jethwa H, Lam S, Smith C, Giles I. Does Rheumatoid Arthritis Really Improve During Pregnancy? A Systematic Review and Metaanalysis. *J Rheumatol*. 2019 Mar;46(3):245–50. doi:10.3899/jrheum.180226
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- (9) May Clinic. 2023. Exercise helps ease arthritis pain and stiffness. Retrieved from: <https://www.mayoclinic.org/diseases-conditions/arthritis/in-depth/arthritis/art-20047971>
- (10) Singh, J. 2021. Using Heat and Cold to Treat a Rheumatoid Arthritis Flare-Up. Retrieved from: <https://www.arthritis-health.com/blog/using-heat-and-cold-treat-rheumatoid-arthritis-flare>

Kate Mather



Kate Mather has been a valued Patient Partner with the BIONIC study team since 2024, helping refine research questions, study design, and knowledge translation. She brings more than 40 years of lived experience with rheumatoid arthritis (RA), as well as deep personal insight into navigating infertility and pregnancy with RA and prescription medications - having experienced two miscarriages and one live birth during her journey to parenthood.

Kate first connected with the study team through Arthritis Society Canada, where she remains an active volunteer. She reviews multiple grant programs, serves as an Innovation Ambassador, and has contributed to several OMERACT research initiatives focused on Osteoarthritis, shared decision-making, outcome measures, and RA remission.

Kate also supports medical, OT and PT students and community-based physicians by helping them build hands-on skills in examining and treating people living with arthritis. Her long-standing relationship with SickKids - as a former patient, volunteer, parent, and grandparent - adds another layer of experience to her role. Before retiring, Kate spent four decades as a management consultant working across health, social services, and justice sectors.

In her work with the BIONIC project, Kate offers insights into identifying RA flares, emphasizing the importance of capturing psychosocial well-being, daily functioning, and real-world challenges - factors often missed in routine clinical assessments but essential for truly understanding disease burden. Kate's lived experience helps guide how we understand relevant outcomes, real-world decision-making, and the practical realities that shape patient experiences who are navigating preconception, pregnancy and parenthood.

Share Your Thoughts

Let us know what you think of the March BIONIC Newsletter, or tell us what you would like to hear about in the next edition [here](#).



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