

## Patient Information Sheet: “I am pregnant or breastfeeding. Should I get the COVID-19 Vaccine?”

### Intended Use

This decision aid is intended for use by pregnant people or those breastfeeding who are considering getting the COVID-19 vaccine, as well as their healthcare providers, friends and family. This tool provides basic information only and is not intended to provide or take the place of medical advice, diagnosis or treatment. This decision aid is intended to help in making an informed choice about whether or not to get the COVID-19 vaccine before, during or after pregnancy or breastfeeding. This resource has been modified from the decision aid produced by the Massachusetts Shared Decision Making: COVID-19 Vaccination in Pregnancy working group at the [University of Massachusetts Medical School – Baystate Health](#).

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### References

Allotey, J., Stallings, E., Bonet, M., Tap, M., Chatterjee, S., Kew, T., ... & PregCOV-19 Living Systematic Review Consortium. (2020). Clinical manifestations, risk factors, and maternal and perinatal outcomes of coronavirus disease 2019 in pregnancy: Living systematic review and meta-analysis. *BMJ*, 370: m3320. Available at <https://www.bmj.com/content/370/bmj.m3320>

Better Outcomes Registry & Network (BORN) Ontario. (July 30, 2021). COVID-19 vaccination during pregnancy in Ontario. Surveillance Report #2, Reporting Interval December 14, 2020 to June 30, 2021. Ottawa, ON: BORN Ontario. Available at <https://www.bornontario.ca/en/whats-happening/resources/Documents/BORN-COVID-19-Vaccination-During-Pregnancy-in-Ontario-Report-2---FINAL.pdf>

Centers for Disease Control and Prevention. Updated October 7, 2021. COVID-19: Pregnancy or Breastfeeding. Available at <https://www.cdc.gov/coronavirus/2019-ncov/vaccines/recommendations/pregnancy.html>

Centers for Disease Control and Prevention. Updated October 13, 2021. COVID-19: Frequently Asked Questions. Available at <https://www.cdc.gov/coronavirus/2019-ncov/vaccines/faq.html>

Centers for Disease Control and Prevention. Released November 2, 2020. Morbidity and Mortality Weekly Report (MMWR), Birth and Infant Outcomes Following Laboratory-Confirmed SARS-CoV-2 Infection in Pregnancy — SET-NET, 16 Jurisdictions, March 29–October 14, 2020. Available at: <https://www.cdc.gov/mmwr/volumes/69/wr/mm6944e2.htm>

Dagan, N., Barda, N., Biron-Shental, T., Majov-Assif, M., Key, C., Kohane, I. S., ... & Balicer, R. D. Effectiveness of the BNT162b2 mRNA COVID-19 vaccine in pregnancy. (September 7, 2021). *Nature Medicine*, 1-3. Available at <https://www.nature.com/articles/s41591-021-01490-8>

Drugs and Lactation Database (LactMed) [Internet]. Bethesda (MD). National Library of Medicine (US); 2006-. COVID-19 vaccines. [Updated 2021 Sep 20]. Available at [https://www.ncbi.nlm.nih.gov/books/NBK565969/pdf/Bookshelf\\_NBK565969.pdf](https://www.ncbi.nlm.nih.gov/books/NBK565969/pdf/Bookshelf_NBK565969.pdf)

Goldshtein, I., Nevo, D., Steinberg, D. M., Rotem, R. S., Gorfine, M., Chodick, G., & Segal, Y. (July 12, 2021). Association between BNT162b2 vaccination and the incidence of SARS-CoV-2 infection in pregnant women. *JAMA*, 326(8), 728-735. Available at <https://jamanetwork.com/journals/jama/fullarticle/2782047>

Government of Canada. Immunization in pregnancy and breastfeeding: Canadian Immunization Guide. Updated December 24, 2020. Available at <https://www.canada.ca/en/public-health/services/publications/healthy-living/canadian-immunization-guide-part-3-vaccination-specific-populations/page-4-immunization-pregnancy-breastfeeding.html>

Figueiro-Filho, E. A., Yudin, M. & Farine, D. (November 26, 2020). COVID-19 during pregnancy: An overview of maternal characteristics, clinical symptoms, maternal and neonatal outcomes of 10,996 cases described in 15 countries. *Journal of Perinatal Medicine*, 48(9), 900-911. Available at <https://pubmed.ncbi.nlm.nih.gov/33001856/>

Gray, K. J., Bordt, E. A., Atyeo, C. et al. (March 25, 2021). Coronavirus disease 2019 vaccine response in pregnant and lactating women: A cohort study. *AJOG*. Available at: [https://www.ajog.org/article/S0002-9378\(21\)00187-3/fulltext](https://www.ajog.org/article/S0002-9378(21)00187-3/fulltext)

Jafari, M., Pormohammad, A., Sheikh Neshin, S. A., Ghorbani, S., Bose, D., Alimohammadi, S., ... & Zarei, M. (2021). Clinical characteristics and outcomes of pregnant women with COVID-19 and comparison with control patients: A systematic review and meta-analysis. *Reviews in medical virology*, e2208. Available at <https://pubmed.ncbi.nlm.nih.gov/33387448/>

Juncker, H. G., Mulleners, S. J., van Gils, M. J., de Groot, C. J., Pajkrt, D., Korosi, A., ... & van Keulen, B. J. (2021). The levels of SARS-CoV-2 specific antibodies in human milk following vaccination. *Journal of Human Lactation*. Available at <https://journals.sagepub.com/doi/full/10.1177/08903344211027112>

Khalil, A., Kalafat, E., Benlioglu, C., O'Brien, P., Morris, E., Draycott, T., ... & Magee, L. A. (2020). SARS-CoV-2 infection in pregnancy: A systematic review and meta-analysis of clinical features and pregnancy outcomes. *EClinicalMedicine*, 25, 100446. Available at [https://www.thelancet.com/pdfs/journals/eclinm/PIIS2589-5370\(20\)30190-5.pdf](https://www.thelancet.com/pdfs/journals/eclinm/PIIS2589-5370(20)30190-5.pdf)

Kharbanda, E. O., Happala, J., DeSilva, M., Vasquez-Benitez, G., Vesco, K. K., Naleway, A. L., & Lipkind, H. S. (September 8, 2021). Spontaneous abortion following COVID-19 vaccination during pregnancy. *JAMA*. Available at <https://jamanetwork.com/journals/jama/fullarticle/2784193>

Knight, M., Ramakrishnan, R., Bunch, K., Vousden, N., Kurinczuk, J., Dunn, S... & Semple, C. (2021). Females in hospital with SARS-CoV-2 infection, the association with pregnancy and pregnancy outcomes: A UKOSS/ ISARIC/CO-CIN investigation. Available at [https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/977287/s1171-ukoss-isaric-co-cin-covid-19-young-females-pregnancy-report.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/977287/s1171-ukoss-isaric-co-cin-covid-19-young-females-pregnancy-report.pdf)

Mahajan, N. N., Pophalkar, M., Patil, S., Yewale, B., Chaaithanya, I. K., Mahale, S. D., & Gajbhiye, R. K. (October 1, 2021). Pregnancy outcomes and maternal complications during the second wave of coronavirus disease 2019 in India. *Obstetrics and Gynecology*, 138(4), 660-662. Available at <https://pubmed.ncbi.nlm.nih.gov/34233345/>

McLaurin-Jiang, S., Garner, C. D., Krutsch, K., & Hale, T. W. (2021) Maternal and child symptoms following COVID-19 vaccination among breastfeeding mothers. *Breastfeeding Medicine*, 16(9), 702-709. Available at <https://www.liebertpub.com/doi/pdfplus/10.1089/bfm.2021.0079>

Ontario Ministry of Health. Updated March 11, 2021. About COVID-19 Vaccines. Available at [https://www.health.gov.on.ca/en/pro/programs/publichealth/coronavirus/docs/vaccine/COVID-19\\_about\\_vaccines.pdf](https://www.health.gov.on.ca/en/pro/programs/publichealth/coronavirus/docs/vaccine/COVID-19_about_vaccines.pdf)

Ontario Ministry of Health. Updated September 29, 2021. COVID-19 Vaccination Recommendations for Special Populations. Available at

[https://www.health.gov.on.ca/en/pro/programs/publichealth/coronavirus/docs/vaccine/COVID-19\\_vaccination\\_rec\\_special\\_populations.pdf](https://www.health.gov.on.ca/en/pro/programs/publichealth/coronavirus/docs/vaccine/COVID-19_vaccination_rec_special_populations.pdf)

Ontario Ministry of Health. Updated October 7, 2021. COVID-19 Vaccine Information Sheet. Available at [https://www.health.gov.on.ca/en/pro/programs/publichealth/coronavirus/docs/vaccine/COVID-19\\_vaccine\\_info\\_sheet.pdf](https://www.health.gov.on.ca/en/pro/programs/publichealth/coronavirus/docs/vaccine/COVID-19_vaccine_info_sheet.pdf)

Ontario Ministry of Health. Updated April 27, 2021. COVID-19 Guidance for Prioritization of Phase 2 Populations for COVID-19 Vaccination. Available at [https://www.health.gov.on.ca/en/pro/programs/publichealth/coronavirus/docs/vaccine/COVID-19\\_Phase\\_2\\_vaccination\\_prioritization.pdf](https://www.health.gov.on.ca/en/pro/programs/publichealth/coronavirus/docs/vaccine/COVID-19_Phase_2_vaccination_prioritization.pdf)

Money, D. (June 3, 2021). Canadian surveillance of COVID-19 in pregnancy: Epidemiology, maternal and infant outcomes. Report #4. Available at <https://ridprogram.med.ubc.ca/cancovid-preg/>

National Advisory Committee on Immunization (NACI). Updated September 28, 2021. Recommendations on the use of COVID-19 vaccines. Advisory Committee Statement. Available at: <https://www.canada.ca/content/dam/phac-aspc/documents/services/immunization/national-advisory-committee-on-immunization-naci/recommendations-use-covid-19-vaccines/recommendations-use-covid-19-vaccines-en.pdf>

Ontario COVID-19 Science Advisory Table. (September 13, 2021). The incidence, severity, and management of COVID-19 in critically ill pregnant individuals. Available at <https://covid19-sciencetable.ca/sciencebrief/the-incidence-severity-and-management-of-covid-19-in-critically-ill-pregnant-individuals/>

Shimabukuro, T.T., Kim, S. Y., Myers, T.R., Moro, P. L., Oduyebo, T., Panagiotakopolous, L., ... & Meaney-Delman, M. D.. (April 21, 2021). Preliminary findings of mRNA Covid-19 vaccine safety in pregnant persons. *New England Journal of Medicine*, 384(24), 2273-2282. Available at <https://www.nejm.org/doi/full/10.1056/NEJMoa2104983>

Society of Obstetricians and Gynaecologists of Canada (SOGC). Revised and reaffirmed May 25, 2021. SOGC Statement on COVID-19 vaccination in pregnancy. Available at: [https://www.sogc.org/common/Uploaded%20files/Latest%20News/SOGC\\_Statement\\_COVID-19\\_Vaccination\\_in\\_Pregnancy.pdf](https://www.sogc.org/common/Uploaded%20files/Latest%20News/SOGC_Statement_COVID-19_Vaccination_in_Pregnancy.pdf)

Society of Obstetricians and Gynaecologists of Canada (SOGC). Released April 20, 2021. SOGC Statement on the COVID-19 vaccines and rare adverse outcomes of thrombosis associated with low platelets. Available at: [https://www.sogc.org/en/content/featured-news/SOGC\\_Statement\\_on\\_the\\_COVID-19\\_vaccines\\_and\\_rare\\_adverse\\_outcomes\\_of\\_%20thrombosis.aspx](https://www.sogc.org/en/content/featured-news/SOGC_Statement_on_the_COVID-19_vaccines_and_rare_adverse_outcomes_of_%20thrombosis.aspx)

Theiler, R. N., Wick, M., Weaver, A., Mehta, R., Virk, A., & Swift, M. (2021). Pregnancy and birth outcomes after SARS-CoV-2 vaccination in pregnancy. *American Journal of Obstetrics and Gynecology MFM*. Available at <https://pubmed.ncbi.nlm.nih.gov/34425297/>

Villar, J., Ariff, S., Gunier, R. B., Thiruvengadam, R., Rauch, S., Kholin, A., ... & Papageorgiou, A. T. (April 22, 2021). Maternal and neonatal morbidity and mortality among pregnant women with or without COVID-19 infection: The INTERCOVID multinational cohort study. *JAMA Pediatrics*, 178(8), 817-826. Available at <https://jamanetwork.com/journals/jamapediatrics/fullarticle/2779182>

Wei, S. Q. Bilodeau-Bertrand, M., Liu, S., & Auger, N. (2021). The impact of COVID-19 on pregnancy outcomes: A systematic review and meta-analysis. *CMAJ*, 193(16), E540-E548. Available at <https://www.cmaj.ca/content/193/16/E540>

Zambrano, L. D., Ellington, S., Strid, P., et al. (2020). Update: Characteristics of symptomatic women of reproductive age with laboratory-confirmed sars-cov-2 infection by pregnancy status - United States, January 22- October 3, 2020. *MMWR Morb Mortal Wkly Rep*, 69(55),1641-1647. Available at <https://pubmed.ncbi.nlm.nih.gov/33151921/>

Zauche, L. H., Wallace, B., Smoots, A. N., Olson, C. K., Oduyebo, T., Kim, S. Y., ... & Ellington, S. R. (2021). Receipt of mRNA Covid-19 Vaccines and Risk of Spontaneous Abortion. *New England Journal of Medicine*. Available at <https://www.nejm.org/doi/full/10.1056/NEJMc2113891>