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# Current Resources for Evidence-Based Practice, May 2020

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## ABSTRACT

An extensive review of new resources to support the provision of evidence-based care for women and infants. The current column includes a discussion of a new National Academy of Medicine report on planned place of birth and implications during the SARS-CoV-2 pandemic and commentaries on reviews focused on anorectal sexually transmitted infections and feeding methods following cleft lip repair in infants.

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## Place of Birth During a Pandemic

In February 2020, the National Academy of Medicine (formerly the Institute of Medicine) released a consensus report entitled, “Birth Settings in America: Outcomes, Quality, Access, and Choice” (National Academies of Sciences, Engineering, and Medicine, 2020). The take home messages from this report are that (a) planned community and planned hospital births can be safe depending on pregnancy characteristics; provider experience; and easy, seamless availability of higher-level care should it be required; (b) no birth location is risk-free; and (c) any effort to increase maternal choice around birth place in the United States must explicitly consider and address the pervasive racial and ethnic disparities experienced by women of color in the current maternity care system.

As a long-time community birth researcher, I eagerly anticipated the publication of this report. As soon as it was released, I spent the next several evenings poring over the document, reading related literature on ethics and choice, and planning this May 2020 column. I had a pretty solid outline for a column in which I would have delved into the global safety literature and then explored the idea of informed consent in maternity care. I would have explored the idea of choice and what it means in terms of planned place of birth, specifically within our unique, U.S. health care system.

That was almost exactly one month ago. My, how times have changed.

I sit here now on March 19, and nothing is the same. By the time you read this column in another 6 weeks, I cannot begin to speculate about what our lives will look like—what your lives, as health care providers, will look like. (Thank you, so much, for doing what you do.) As an epidemiologist, I have spent the past two weeks answering questions from my friends and family; no doubt this will continue as we are bombarded by daily news—some true, much of it not—about the novel coronavirus. My children are out of school at least through the end of April, and my university has announced that all classes for spring quarter will be held online only. Hopefully these and other social distancing measures will allow our health care system to keep up with the sudden increased demand for critical care. Perhaps by early May, when this is published, we will be beginning to return to our normal lives. As I write, China is just beginning to relax some of their mandatory social isolation measures following several days of no observed community-transmitted cases. Hopefully, this is where the United States will be in 6 weeks. Although, of course, it is entirely possible that China will be forced to return to mandatory social distancing in the meantime and that we would be wise to follow suit.

Given this global pandemic backdrop, the question of planned community birth suddenly becomes much more salient. Thus far, it seems that pregnant women and children are not at high risk of severe disease given SARS-CoV-2 infection (so few data are available that I cannot provide citations). However, like so many other things

about our current situation, we just don't yet know. What we do know is that even under best case scenarios, in the next few weeks our hospitals will likely exceed their capacities, and our health care workforce will shrink as physicians and nurses become infected themselves. Hopefully, the excess demand is not too high. Regardless, as a pregnant woman, would you want to have your baby in a hospital in which most other patients have COVID-19? In which the medical staff are stretched even more thin than normal? In which there might not even be a bed for you? Unfortunately, most women who are due to give birth in the next several weeks will not have a choice.

Perhaps it is time that we as a nation embrace the idea of planned community birth. This change cannot happen overnight. We currently do not have nearly enough midwives, most U.S. women are not socialized to accept community birth as a viable option, most midwives are not comfortable with community birth, and most local health care systems are not set up to allow seamless transfer of care when indicated. But imagine if our maternity care system looked more like the one in the Netherlands, where planned home birth is considered a viable option for most women, midwives are comfortable in both settings, and transfers into and out of obstetric care when indicated are seamless (Amelink-Verburg & Buitendijk, 2010). Surge capacity in the midst of greatly increased demand secondary to a pandemic would still be an issue, but I cannot help but think that maternal and child outcomes over the next several weeks would be better if women in labor were able to safely stay away from our overwhelmed hospitals.

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## REFERENCES

- Amelink-Verburg, M. P., & Buitendijk, S. E. (2010). Pregnancy and labour in the Dutch maternity care system: What is normal? The role division between midwives and obstetricians. *Journal of Midwifery & Women's Health*, 55(3), 216–225. <https://doi.org/10.1016/j.jmwh.2010.01.001>
- National Academies of Sciences, Engineering, and Medicine. (2020). *Birth settings in America: Outcomes, quality, access, and choice*. <https://doi.org/10.17226/25636>

## From Cochrane Database of Systematic Reviews (CDSR) Issues 1–2 (2020)

### Systematic Reviews in CDSR: Women's Health

- Exercise therapies for preventing or treating aromatase inhibitor-induced musculoskeletal symptoms in early breast cancer
- Hormone replacement therapy after surgery for epithelial ovarian cancer
- Laparoscopic ovarian drilling for ovulation induction in women with anovulatory polycystic ovary syndrome
- Rapid point of care test for detecting urogenital Chlamydia trachomatis infection in nonpregnant women and men at reproductive age
- Traditional suburethral sling operations for urinary incontinence in women

### Systematic Reviews in CDSR: Fertility, Contraception, and ART

- Regular (ICSI) versus ultra-high magnification (IMSI) sperm selection for assisted reproduction

### Systematic Reviews in CDSR: Pregnancy and Birth

- Acupuncture or acupressure for pain management during labour
- Membrane sweeping for induction of labour

### Systematic Reviews in CDSR: Infant Health and Breastfeeding

- Early versus late erythropoietin for preventing red blood cell transfusion in preterm and/or low birth weight infants
- Ibuprofen for the prevention of patent ductus arteriosus in preterm and/or low birth weight infants
- Ibuprofen for the treatment of patent ductus arteriosus in preterm or low birth weight (or both) infants
- Intravenous immunoglobulin for preventing infection in preterm and/or low birth weight infants
- Intravenous immunoglobulin for suspected or proven infection in neonates
- Late erythropoiesis-stimulating agents to prevent red blood cell transfusion in preterm or low birth weight infants

- Paracetamol (acetaminophen) for patent ductus arteriosus in preterm or low birth weight infants
- Paracetamol (acetaminophen) for prevention or treatment of pain in newborns
- Sound reduction management in the neonatal intensive care unit for preterm or very low birth weight infants
- Surfactant for pulmonary haemorrhage in neonates. Early erythropoiesis-stimulating agents in preterm or low birth weight infants

## Evidence-Based Reviews From Other Sources

### Recent Evidence-Based Reviews: Women's Health

- Aduinlin, G., Cyrus, J. W., Asare, M., & Sabik, L. M. (2019). Barriers and facilitators to breast and cervical cancer screening among immigrants in the United States. *Journal of Immigrant and Minority Health, 21*(3), 606–658. <https://doi.org/10.1007/s10903-018-0794-6>
- Aleixo, G. F., Fonseca, M. C. M., Bortolini, M. A. T., Brito, L. G. O., & Castro, R. A. (2019). Pelvic floor symptoms 5 to 14 years after total versus subtotal hysterectomy for benign conditions: A systematic review and meta-analysis. *International Urogynecology Journal, 30*(2), 181–191. <https://doi.org/10.1007/s00192-018-3811-3>
- Arabin, B., Timmesfeld, N., Noever, K., Behnam, S., Ellermann, C., & Jenny, M. A. (2019). How to improve health literacy to reduce short- and long-term consequences of maternal obesity? *Journal of Maternal-Fetal & Neonatal Medicine, 32*(17), 2935–2942. <https://doi.org/10.1080/14767058.2018.1450383>
- Balk, E. M., Rofeberg, V. N., Adam, G. P., Kimmel, H. J., Trikalinos, T. A., & Jeppson, P. C. (2019). Pharmacologic and non-pharmacologic treatments for urinary incontinence in women: A systematic review and network meta-analysis of clinical outcomes. *Annals of Internal Medicine, 170*(7), 465–479. <https://doi.org/10.7326/M18-3227>
- Beesley, V. L., Alemayehu, C., & Webb, P. M. (2019). A systematic literature review of trials of survivorship interventions for women with gynaecological cancer and their caregivers. *European Journal of Cancer Care, 28*(3), e13057. <https://doi.org/10.1111/ecc.13057>
- Bodelon, C., Ambatipudi, S., Dugué, P.-A., Johansson, A., Sampson, J. N., Hicks, B., Karlins, E., Hutchinson, A., Cuenin, C., Chajès, V., Southey, M. C., Romieu, I., Giles, G. G., English, D., Polidoro, S., Assumma, M., Baglietto, L., Vineis, P., Severi, G., ... Garcia-Closas, M. (2019). Blood DNA methylation and breast cancer risk: A meta-analysis of four prospective cohort studies. *Breast Cancer Research, 21*(1), 62. <https://doi.org/10.1186/s13058-019-1145-9>
- Brusselsaers, N., Shrestha, S., van de Wijert, J., & Verstraelen, H. (2019). Vaginal dysbiosis and the risk of human papillomavirus and cervical cancer: Systematic review and meta-analysis. *American Journal of Obstetrics and Gynecology, 221*(1), 9–18.e8. <https://doi.org/10.1016/j.ajog.2018.12.011>
- Chan, D. S. M., Abar, L., Cariolou, M., Nanu, N., Greenwood, D. C., Bandera, E. V., McTiernan, A., & Norat, T. (2019). World cancer research fund international: Continuous update project-systematic literature review and meta-analysis of observational cohort studies on physical activity, sedentary behavior, adiposity, and weight change and breast cancer risk. *Cancer Causes & Control, 30*(11), 1183–1200. <https://doi.org/10.1007/s10552-019-01223-w>
- Chang, V. C., Cotterchio, M., & Khoo, E. (2019). Iron intake, body iron status, and risk of breast cancer: A systematic review and meta-analysis. *BioMed Central Cancer, 19*(1), 543. <https://doi.org/10.1186/s12885-019-5642-0>
- Coulter, R. W. S., Egan, J. E., Kinsky, S., Friedman, M. R., Eckstrand, K. L., Frankeberger, J., Folb, B. L., Mair, C., Markovic, N., Silvestre, A., Stall, R., & Miller, E. (2019). Mental health, drug, and violence interventions for sexual/gender minorities: A systematic review. *Pediatrics, 144*(3), e20183367. <https://doi.org/10.1542/peds.2018-3367>
- Dong, B., Xie, C., Jing, X., Lin, L., & Tian, L. (2019). Yoga has a solid effect on cancer-related fatigue in patients with breast cancer: A meta-analysis. *Breast Cancer Research and Treatment, 177*(1), 5–16. <https://doi.org/10.1007/s10549-019-05278-w>
- Finitsis, D. J., Vose, B. A., Mahalak, J. G., & Salner, A. L. (2019). Interventions to promote adherence to endocrine therapy among breast cancer survivors: A meta-analysis. *Psycho-Oncology, 28*(2), 255–263. <https://doi.org/10.1002/pon.4959>

- Gebrezgi, M. T., Mauck, D. E., Sheehan, D. M., Fennie, K. P., Cyrus, E., Degarege, A., & Trepka, M. J. (2019). Acceptance of opt-out HIV screening in outpatient settings in the United States: A systematic review and meta-analysis. *Public Health Reports, 134*(5), 484–492. <https://doi.org/10.1177/0033354919860510>
- Ho-Huynh, A., Tran, A., Bray, G., Abbot, S., Elston, T., Gunnarsson, R., & de Costa, A. (2019). Factors influencing breast cancer outcomes in Australia: A systematic review. *European Journal of Cancer Care, 28*(4), e13038. <https://doi.org/10.1111/ecc.13038>
- Jones, E. J., Hernandez, T. L., Edmonds, J. K., & Ferranti, E. P. (2019). Continued disparities in postpartum follow-up and screening among women with gestational diabetes and hypertensive disorders of pregnancy: A systematic review. *Journal of Perinatal & Neonatal Nursing, 33*(2), 136–148. <https://doi.org/10.1097/JPN.0000000000000399>
- Khorshidi, A., Azami, M., Tardeh, S., & Tardeh, Z. (2019). The prevalence of metabolic syndrome in patients with polycystic ovary syndrome: A systematic review and meta-analysis. *Diabetes & Metabolic Syndrome, 13*(4), 2747–2753. <https://doi.org/10.1016/j.dsx.2019.06.008>
- Kim, K., & LeClaire, A.-R. (2019). A systematic review of factors influencing human papillomavirus vaccination among immigrant parents in the United States. *Health Care for Women International, 40*(6), 696–718. <https://doi.org/10.1080/07399332.2017.1404064>
- Kramer, C. K., Campbell, S., & Retnakaran, R. (2019). Gestational diabetes and the risk of cardiovascular disease in women: A systematic review and meta-analysis. *Diabetologia, 62*(6), 905–914. <https://doi.org/10.1007/s00125-019-4840-2>
- Lau, A., Kong, F. Y. S., Huston, W., Chow, E. P. F., Fairley, C. K., & Hocking, J. S. (2019). Factors associated with anorectal chlamydia trachomatis or neisseria gonorrhoeae test positivity in women: A systematic review and meta-analysis. *Sexually Transmitted Infections, 95*(5), 361–367. <https://doi.org/10.1136/sextrans-2018-053950>
- Lee, J. (2019). Physical activity, sitting time, and the risk of ovarian cancer: A brief research report employing a meta-analysis of existing. *Health Care for Women International, 40*(4), 433–458. <https://doi.org/10.1080/07399332.2018.1505892>
- Lee, J. J., & Zhou, Y. (2019). Facilitators and barriers to HIV testing among Asians in the United States: A systematic review. *AIDS Care, 31*(2), 141–152. <https://doi.org/10.1080/09540121.2018.1533231>
- Leysen, L., Lahousse, A., Nijs, J., Adriaenssens, N., Mairesse, O., Ivakhnov, S., Bilterys, T., Van Looveren, E., Pas, R., & Beckwée, D. (2019). Prevalence and risk factors of sleep disturbances in breast cancer survivors: Systematic review and meta-analyses. *Supportive Care in Cancer, 27*(12), 4401–4433. <https://doi.org/10.1007/s00520-019-04936-5>
- Liu, Z. Y., Gao, X. P., Zhu, S., Liu, Y. H., Wang, L. J., Jing, C. X., & Zeng, F. F. (2019). Dietary inflammatory index and risk of gynecological cancers: A systematic review and meta-analysis of observational studies. *Journal of Gynecologic Oncology, 30*(3), e23. <https://doi.org/10.3802/jgo.2019.30.e23>
- Mathioudakis, A. G., Salakari, M., Pylkkanen, L., Saz-Parkinson, Z., Bramesfeld, A., Deandrea, S., Lerda, D., Neamtiu, L., Pardo-Hernandez, H., Solà, I., & Alonso-Coello, P. (2019). Systematic review on women's values and preferences concerning breast cancer screening and diagnostic services. *Psycho-Oncology, 28*(5), 939–947. <https://doi.org/10.1002/pon.5041>
- Olsson Möller, U., Beck, I., Rydén, L., & Malmström, M. (2019). A comprehensive approach to rehabilitation interventions following breast cancer treatment—A systematic review of systematic reviews. *Bio-Med Central Cancer, 19*(1), 472. <https://doi.org/10.1186/s12885-019-5648-7>
- Pilevarzadeh, M., Amirshahi, M., Afsar-gharehbagh, R., Rafiemanesh, H., Hashemi, S.-M., & Balouchi, A. (2019). Global prevalence of depression among breast cancer patients: A systematic review and meta-analysis. *Breast Cancer Research and Treatment, 176*(3), 519–533. <https://doi.org/10.1007/s10549-019-05271-3>
- Shafiei, F., Salari-Moghaddam, A., Milajerdi, A., Larijani, B., & Esmailzadeh, A. (2019). Coffee and caffeine intake and risk of ovarian cancer: A systematic review and meta-analysis. *International Journal of Gynecological Cancer, 29*(3), 579–584. <https://doi.org/10.1136/ijgc-2018-000102>
- Sultan, P., Bampoe, S., Shah, R., Guo, N., Estes, J., Stave, C., Goodnough, L. T., Halpern, S., & Butwick, A. J. (2019). Oral vs intravenous iron therapy for postpartum anemia: A systematic review and meta-analysis. *American*

- Journal of Obstetrics and Gynecology*, 227(1), 19–29.e3. <https://doi.org/10.1016/j.ajog.2018.12.016>
- Ti, A., & Curtis, K. M. (2019). Postpartum hormonal contraception use and incidence of postpartum depression: A systematic review. *European Journal of Contraception & Reproductive Health Care*, 24(2), 109–116. <https://doi.org/10.1080/13625187.2019.1569610>
- Uglietti, A., Buggio, L., Farella, M., Chiaffarino, F., Dridi, D., Vercellini, P., & Parazzini, F. (2019). The risk of malignancy in uterine polyps: A systematic review and meta-analysis. *European Journal of Obstetrics, Gynecology, and Reproductive Biology*, 237, 48–56. <https://doi.org/10.1016/j.ejogrb.2019.04.009>
- Vasconcelos, C. T. M., Firmiano, M. L. V., Oriá, M. O. B., Vasconcelos Neto, J. A., Saboia, D. M., & Bezerra, L. R. P. S. (2019). Women's knowledge, attitude and practice related to urinary incontinence: Systematic review. *International Urogynecology Journal*, 30(2), 171–180. <https://doi.org/10.1007/s00192-018-3759-3>
- Wen, Q., Zhao, Z., Wen, J., Zhou, J., Wu, J., Lei, S., & Miao, Y. (2019). The association between metformin therapy and risk of gynecological cancer in patients: Two meta-analyses. *European Journal of Obstetrics, Gynecology, and Reproductive Biology*, 237, 33–41. <https://doi.org/10.1016/j.ejogrb.2019.03.029>
- Wu, Y., Sun, W., Liu, H., & Zhang, D. (2019). Age at menopause and risk of developing endometrial cancer: A meta-analysis. *BioMed Research International*, 2019, 8584130. <https://doi.org/10.1155/2019/8584130>
- Zha, N., Alabousi, M., Patel, B. K., & Patlas, M. N. (2019). Beyond universal health care: Barriers to breast cancer screening participation in Canada. *Journal of the American College of Radiology*, 16(4 Pt B), 570–579. <https://doi.org/10.1016/j.jacr.2019.02.044>
- Zhang, Z., Yan, W., Chen, Q., Zhou, N., & Xu, Y. (2019). The relationship between exposure to particulate matter and breast cancer incidence and mortality: A meta-analysis. *Medicine*, 98(50), e18349. <https://doi.org/10.1097/MD.00000000000018349>
- meta-analysis. *Sexually Transmitted Infections*, 95(5), 361–367. <https://doi.org/10.1136/sextrans-2018-053950>

In this meta-analysis, Lau et al. (2019) explored factors that might conceivably be associated with anorectal infections with chlamydia or gonorrhea in women: concurrent urogenital infection, concurrent oropharyngeal infection, and anal intercourse. As expected, more women overall had *C. trachomatis* infections than *N. gonorrhoea* infections; however, as all studies were conducted at sexually transmitted infection clinics, the prevalences of both were quite high in the study populations.

In 13 studies on concurrent urogenital and anorectal tests, the prevalence ratio (proportion of dually positive women to urogenital negative/anorectal-positive women) was 32.2 (95% confidence interval [CI], 25.6, 40.7) for *C. trachomatis* infections and 89.3 (53.1, 150.3) for *N. gonorrhoea* infections. In five studies on concurrent oropharyngeal and anorectal tests, the prevalence ratios were 8.8 (6.8, 11.5) for chlamydia and 34.8 (10.2, 118.2) for gonorrhea. Finally, in two studies on associations between anal intercourse and anorectal infections, the prevalence ratio was 1.0 (0.7, 1.4) for chlamydia and 4.3 (2.2, 8.6) for gonorrhea. The authors concluded, “anorectal NG [*N. gonorrhoea*] was substantially more associated with urogenital and oropharyngeal detection than was anorectal CT [*C. trachomatis*]. Furthermore, anorectal NG was associated with anal intercourse, but anorectal CT was not” (Lau et al., 2019, p. 365).

**Comment:** The mechanism for anorectal infections via anal intercourse is obvious, but it is interesting that anal intercourse seems to lead to positive tests for anorectal gonorrhea but not anorectal chlamydia. Less obvious are the potential mechanisms for anorectal infection with either of these organisms in women who deny anal intercourse. Lau et al. (2019) speculated that urogenital infections may be transmitted to anorectal infections via toileting and that oropharyngeal infections may be transmitted to anorectal infections via the gastrointestinal tract. Regardless of mechanism, these co-infections are more common among women with gonorrhea than women with chlamydia.

Given that the symptoms for these two infections are very similar, the take home message for women's health nurses is to swab all sites—urogenital, anorectal, and oropharyngeal—when testing for these

**Featured Review:** Lau, A., Kong, F. Y. S., Huston, W., Chow, E. P. F., Fairley, C. K., & Hocking, J. S. (2019). Factors associated with anorectal chlamydia trachomatis or neisseria gonorrhoeae test positivity in women: A systematic review and

two sexually transmitted infections, regardless of the woman's self-reported sexual history. Particularly in women who deny recent anal intercourse, this will likely require careful education and shared decision-making.

### Recent Evidence-Based Reviews: Fertility, Contraception, and ART

- Abarbanell, G., Tepper, N. K., & Farr, S. L. (2019). Safety of contraceptive use among women with congenital heart disease: A systematic review. *Congenital Heart Disease, 14*(3), 331–340. <https://doi.org/10.1111/chd.12752>
- Almasi-Hashiani, A., Omani-Samani, R., Mohammadi, M., Amini, P., Navid, B., Alizadeh, A., Khedmati Morasae, E., & Maroufizadeh, S. (2019). Assisted reproductive technology and the risk of preeclampsia: An updated systematic review and meta-analysis. *Bio-Med Central Pregnancy and Childbirth, 19*(1), 149. <https://doi.org/10.1186/s12884-019-2291-x>
- Barr-Walker, J., Jayaweera, R. T., Ramirez, A. M., & Gerdt, C. (2019). Experiences of women who travel for abortion: A mixed methods systematic review. *PLOS ONE, 14*(4), e0209991. <https://doi.org/10.1371/journal.pone.0209991>
- Bhide, P., Pundir, J., Homburg, R., & Acharya, G. (2019). Biomarkers of ovarian reserve in childhood and adolescence: A systematic review. *Acta Obstetrica Et Gynecologica Scandinavica, 98*(5), 563–572. <https://doi.org/10.1111/aogs.13574>
- Deng, C., Li, T., Xie, Y., Guo, Y., Yang, Q.-Y., Liang, X., Deng, C.-H., & Liu, G.-H. (2019). Sperm DNA fragmentation index influences assisted reproductive technology outcome: A systematic review and meta-analysis combined with a retrospective cohort study. *Andrologia, 51*(6), e13263. <https://doi.org/10.1111/and.13263>
- Gao, L., Shao, W., Li, N., Tian, C., Jia, H., Peng, X., & Shi, Q. (2019). The risk of retinopathy of prematurity in the infants following assisted reproductive technology: A meta-analysis. *BioMed Research International, 2019*, 2095730. <https://doi.org/10.1155/2019/2095730>
- Hodson, N., & Bewley, S. (2019). Abuse in assisted reproductive technology: A systematic qualitative review and typology. *European Journal of Obstetrics, Gynecology, and Reproductive Biology, 238*, 170–177. <https://doi.org/10.1016/j.ejogrb.2019.05.027>
- Juras, R., Tanner-Smith, E., Kelsey, M., Lipsey, M., & Layzer, J. (2019). Adolescent pregnancy prevention: Meta-analysis of federally funded program evaluations. *American Journal of Public Health, 109*(4), e1–e8. <https://doi.org/10.2105/AJPH.2018.304925>
- Kim, Y. R., Pacella, R. E., Harden, F. A., White, N., & Toms, L.-M. L. (2019). A systematic review: Impact of endocrine disrupting chemicals exposure on fecundity as measured by time to pregnancy. *Environmental Research, 171*, 119–133. <https://doi.org/10.1016/j.envres.2018.12.065>
- Luo, J., Shi, Y., Liu, D., Yang, D., Wu, J., Cao, L., Geng, L., Hou, Z., Lin, H., Zhang, Q., Jiang, X., Qian, W., Yu, Z., & Xia, X. (2019). The effect of salpingectomy on the ovarian reserve and ovarian response in ectopic pregnancy: A systematic review and meta-analysis. *Medicine, 98*(47), e17901. <https://doi.org/10.1097/MD.00000000000017901>
- Mooney-Somers, J., Lau, A., Bateson, D., Richters, J., Stewart, M., Black, K., & Nothnagle, M. (2019). Enhancing use of emergency contraceptive pills: A systematic review of women's attitudes, beliefs, knowledge, and experiences in Australia. *Health Care for Women International, 40*(2), 174–195. <https://doi.org/10.1080/07399332.2018.1526286>
- Sergison, J. E., Maldonado, L. Y., Gao, X., & Hubacher, D. (2019). Levonorgestrel intra-uterine system associated amenorrhea: A systematic review and meta-analysis. *American Journal of Obstetrics and Gynecology, 220*(5), 440–448.e8. <https://doi.org/10.1016/j.ajog.2018.12.008>

### Recent Evidence-Based Reviews: Pregnancy and Birth

- Abraha, I., Bonacini, M. I., Montedori, A., Di Renzo, G. C., Angelozzi, P., Micheli, M., Germani, A., Carloni, D., Scaccetti, A., Palmieri, G., Casali, M., Nenz, C. M. G., Gargano, E., Pazzaglia, M., Agea, E., Berchicci, L., Tesoro, S., Albi, N., Minelli, O., ... Marchesi, M. (2019). Oral iron-based interventions for prevention of critical outcomes in pregnancy and postnatal care: An overview and update of systematic reviews. *Journal of Evidence-Based Medicine, 12*(2), 155–166. <https://doi.org/10.1111/jebm.12344>
- Achón, M., Úbeda, N., García-González, Á., Partearroyo, T., & Varela-Moreiras, G. (2019). Effects of milk and dairy product

- consumption on pregnancy and lactation outcomes: A systematic review. *Advances in Nutrition*, 10(suppl\_2), S74–S87. <https://doi.org/10.1093/advances/nmz009>
- Akhter, Z., Rankin, J., Ceulemans, D., Ngongalah, L., Ackroyd, R., Devlieger, R., Vieira, R., & Heslehurst, N. (2019). Pregnancy after bariatric surgery and adverse perinatal outcomes: A systematic review and meta-analysis. *PLOS Medicine*, 16(8), e1002866. <https://doi.org/10.1371/journal.pmed.1002866>
- Al-Hawash, S., Whitehead, C. L., & Farine, D. (2019). Risk of recurrent shoulder dystocia: Are we any closer to prediction? *Journal of Maternal-Fetal & Neonatal Medicine*, 32(17), 2928–2934. <https://doi.org/10.1080/14767058.2018.1450382>
- Allehdan, S. S., Basha, A. S., Asali, F. F., & Tayyem, R. F. (2019). Dietary and exercise interventions and glycemic control and maternal and newborn outcomes in women diagnosed with gestational diabetes: Systematic review. *Diabetes & Metabolic Syndrome*, 13(4), 2775–2784. <https://doi.org/10.1016/j.dsx.2019.07.040>
- Alur-Gupta, S., Cooney, L. G., Senapati, S., Sammel, M. D., & Barnhart, K. T. (2019). Two-dose versus single-dose methotrexate for treatment of ectopic pregnancy: A meta-analysis. *American Journal of Obstetrics and Gynecology*, 221(2), 95–108.e2. <https://doi.org/10.1016/j.ajog.2019.01.002>
- Ascanio, L. C., Maragkos, G. A., Young, B. C., Boone, M. D., & Kasper, E. M. (2019). Spontaneous intracranial hemorrhage in pregnancy: A systematic review of the literature. *Neurocritical Care*, 30(1), 5–15. <https://doi.org/10.1007/s12028-018-0501-4>
- Balayla, J., Desilets, J., & Shrem, G. (2019). Placenta previa and the risk of intrauterine growth restriction (IUGR): A systematic review and meta-analysis. *Journal of Perinatal Medicine*, 47(6), 577–584. <https://doi.org/10.1515/jpm-2019-0116>
- Beetham, K. S., Giles, C., Noetel, M., Clifton, V., Jones, J. C., & Naughton, G. (2019). The effects of vigorous intensity exercise in the third trimester of pregnancy: A systematic review and meta-analysis. *BioMed Central Pregnancy and Childbirth*, 19(1), 281. <https://doi.org/10.1186/s12884-019-2441-1>
- Bellos, I., Fitrou, G., Daskalakis, G., Papantoniou, N., & Pergialiotis, V. (2019). Serum cystatin-c as predictive factor of preeclampsia: A meta-analysis of 27 observational studies. *Pregnancy Hypertension*, 16, 97–104. <https://doi.org/10.1016/j.preghy.2019.03.006>
- Bellos, I., Fitrou, G., Pergialiotis, V., Perrea, D. N., Papantoniou, N., & Daskalakis, G. (2019). Random urine uric acid to creatinine and prediction of perinatal asphyxia: A meta-analysis. *Journal of Maternal-Fetal & Neonatal Medicine*, 32(22), 3864–3870. <https://doi.org/10.1080/14767058.2018.1471677>
- Bellos, I., Pergialiotis, V., Loutradis, D., Papapanagiotou, A., & Daskalakis, G. (2019). Serum CA-125 levels in preeclampsia: A systematic review and meta-analysis. *International Journal of Clinical Practice*, 73(10), e13380. <https://doi.org/10.1111/ijcp.13380>
- Bett, J. V. S., Batistella, E. Â., Melo, G., Munhoz, E. de A., Silva, C. A. B., Guerra, E. N. da S., Porporatti, A. L., & De Luca Canto, G. (2019). Prevalence of oral mucosal disorders during pregnancy: A systematic review and meta-analysis. *Journal of Oral Pathology & Medicine*, 48(4), 270–277. <https://doi.org/10.1111/jop.12831>
- Caradeux, J., Martinez-Portilla, R. J., Peguero, A., Sotiriadis, A., & Figueras, F. (2019). Diagnostic performance of third-trimester ultrasound for the prediction of late-onset fetal growth restriction: A systematic review and meta-analysis. *American Journal of Obstetrics and Gynecology*, 220(5), 449–459.e19. <https://doi.org/10.1016/j.ajog.2018.09.043>
- Chapman, A., Nagle, C., Bick, D., Lindberg, R., Kent, B., Calache, J., & Hutchinson, A. M. (2019). Maternity service organisational interventions that aim to reduce caesarean section: A systematic review and meta-analysis. *BioMed Central Pregnancy and Childbirth*, 19(1), 206. <https://doi.org/10.1186/s12884-019-2351-2>
- Chen, G.-C., Gao, H., Zhang, L., & Tong, T. (2019). Evaluation of therapeutic efficacy of anticoagulant drugs for patients with venous thromboembolism during pregnancy: A systematic review and meta-analysis. *European Journal of Obstetrics, Gynecology, and Reproductive Biology*, 238, 7–11. <https://doi.org/10.1016/j.ejogrb.2019.04.038>
- Cleeve, A., Fønhus, M. S., & Lavelanet, A. (2019). A systematic review of the effectiveness, safety, and acceptability of medical management of intrauterine fetal death at 14–28 weeks of gestation. *International Journal of Gynaecology and Obstetrics*, 147(3), 301–312. <https://doi.org/10.1002/ijgo.12964>



- Cole, J., Lacey, L., & Bulchandani, S. (2019). The use of episissors-60 to reduce the rate of obstetric anal sphincter injuries: A systematic review. *European Journal of Obstetrics, Gynecology, and Reproductive Biology*, *237*, 23–27. <https://doi.org/10.1016/j.ejogrb.2019.04.004>
- D'Antonio, F., Iacovelli, A., Liberati, M., Leombroni, M., Murgano, D., Cali, G., Khalil, A., Flacco, M. E., Scutiero, G., Iannone, P., Scambia, G., Manzoli, L., & Greco, P. (2019). Role of interventional radiology in pregnancy complicated by placenta accreta spectrum disorder: Systematic review and meta-analysis. *Ultrasound in Obstetrics & Gynecology*, *53*(6), 743–751. <https://doi.org/10.1002/uog.20131>
- De Kat, A. C., Hirst, J., Woodward, M., Kennedy, S., & Peters, S. A. (2019). Prediction models for preeclampsia: A systematic review. *Pregnancy Hypertension*, *16*, 48–66. <https://doi.org/10.1016/j.pregphy.2019.03.005>
- De Mucio, B., Serruya, S., Alemán, A., Castellano, G., & Sosa, C. G. (2019). A systematic review and meta-analysis of cesarean delivery and other uterine surgery as risk factors for placenta accreta. *International Journal of Gynaecology and Obstetrics*, *147*(3), 281–291. <https://doi.org/10.1002/ijgo.12948>
- De Silva, M., Panisi, L., Brownfoot, F. C., Lindquist, A., Walker, S. P., Tong, S., & Hastie, R. (2019). Systematic review of areca (betel nut) use and adverse pregnancy outcomes. *International Journal of Gynaecology and Obstetrics*, *147*(3), 292–300. <https://doi.org/10.1002/ijgo.12971>
- Dickinson, F., McCauley, M., Smith, H., & van den Broek, N. (2019). Patient reported outcome measures for use in pregnancy and childbirth: A systematic review. *BioMed Central Pregnancy and Childbirth*, *19*(1), 155. <https://doi.org/10.1186/s12884-019-2318-3>
- Fernandez-Macias, R., Martinez-Portilla, R. J., Cerrillos, L., Figueras, F., & Palacio, M. (2019). A systematic review and meta-analysis of randomized controlled trials comparing 17-alpha-hydroxyprogesterone caproate versus placebo for the prevention of recurrent preterm birth. *International Journal of Gynaecology and Obstetrics*, *147*(2), 156–164. <https://doi.org/10.1002/ijgo.12940>
- Finlayson, K., Downe, S., Vogel, J. P., & Oladapo, O. T. (2019). What matters to women and healthcare providers in relation to interventions for the prevention of postpartum haemorrhage: A qualitative systematic review. *PLOS ONE*, *14*(5), e0215919. <https://doi.org/10.1371/journal.pone.0215919>
- Grimes, S., Bombay, K., Lanes, A., Walker, M., & Corsi, D. J. (2019). Potential biological therapies for severe preeclampsia: A systematic review and meta-analysis. *BioMed Central Pregnancy and Childbirth*, *19*(1), 163. <https://doi.org/10.1186/s12884-019-2268-9>
- Heslehurst, N., Vieira, R., Akhter, Z., Bailey, H., Slack, E., Ngongalah, L., Pemu, A., & Rankin, J. (2019). The association between maternal body mass index and child obesity: A systematic review and meta-analysis. *PLOS Medicine*, *16*(6), e1002817. <https://doi.org/10.1371/journal.pmed.1002817>
- Ioannidou, P., Papanikolaou, D., Mikos, T., Mastorakos, G., & Goulis, D. G. (2019). Predictive factors of hyperemesis gravidarum: A systematic review. *European Journal of Obstetrics, Gynecology, and Reproductive Biology*, *238*, 178–187. <https://doi.org/10.1016/j.ejogrb.2019.04.043>
- Jenabi, E., & Fereidooni, B. (2019). The uterine leiomyoma and placenta previa: A meta-analysis. *Journal of Maternal-Fetal & Neonatal Medicine*, *32*(7), 1200–1204. <https://doi.org/10.1080/14767058.2017.1400003>
- Jin, X.-H., Li, D., & Li, X. (2019). Carbetocin vs oxytocin for prevention of postpartum hemorrhage after vaginal delivery: A meta-analysis. *Medicine*, *98*(47), e17911. <https://doi.org/10.1097/MD.00000000000017911>
- Kabiri, D., Masarwy, R., Schachter-Safrai, N., Masarwa, R., Hirsh Raccah, B., Ezra, Y., & Matok, I. (2019). Trial of labor after cesarean delivery in twin gestations: Systematic review and meta-analysis. *American Journal of Obstetrics and Gynecology*, *220*(4), 336–347. <https://doi.org/10.1016/j.ajog.2018.11.125>
- Karjalainen, L., Tikkanen, M., Rantanen, K., Lai-vuori, H., Gissler, M., & Ijäs, P. (2019). Pregnancy-associated stroke -a systematic review of subsequent pregnancies and maternal health. *BioMed Central Pregnancy and Childbirth*, *19*(1), 187. <https://doi.org/10.1186/s12884-019-2339-y>
- Li, C., Shen, J., & Hua, K. (2019). Cerclage for women with twin pregnancies: A systematic review and metaanalysis. *American Journal of Obstetrics and Gynecology*, *220*(6), 543–557.e1. <https://doi.org/10.1016/j.ajog.2018.11.1105>

- Loerup, L., Pullon, R. M., Birks, J., Fleming, S., Mackillop, L. H., Gerry, S., & Watkinson, P. J. (2019). Trends of blood pressure and heart rate in normal pregnancies: A systematic review and meta-analysis. *BioMed Central Medicine*, 17(1), 167. <https://doi.org/10.1186/s12916-019-1399-1>
- Makaruk, B., Galczak-Kondraciuk, A., Forczek, W., Grantham, W., & Charnas, M. (2019). The effectiveness of regular exercise programs in the prevention of gestational diabetes mellitus—a systematic review. *Obstetrical & Gynecological Survey*, 74(5), 303–312. <https://doi.org/10.1097/OGX.0000000000000673>
- Muglu, J., Rather, H., Arroyo-Manzano, D., Bhat-tacharya, S., Balchin, I., Khalil, A., Thilaga-nathan, B., Khan, K. S., Zamora, J., & Thangaratinam, S. (2019). Risks of stillbirth and neonatal death with advancing gestation at term: A systematic review and meta-analysis of cohort studies of 15 million pregnancies. *PLOS Medicine*, 16(7), e1002838. <https://doi.org/10.1371/journal.pmed.1002838>
- Nasiri, M., Gheibi, Z., Miri, A., Rahmani, J., Asadi, M., Sadeghi, O., Maleki, V., & Khodadost, M. (2019). Effects of consuming date fruits (*Phoenix dactylifera* Linn) on gestation, labor, and delivery: An updated systematic review and meta-analysis of clinical trials. *Complementary Therapies in Medicine*, 45, 71–84. <https://doi.org/10.1016/j.ctim.2019.05.017>
- Oudman, E., Wijnia, J. W., Oey, M., van Dam, M., Painter, R. C., & Postma, A. (2019). Wernicke's encephalopathy in hyperemesis gravidarum: A systematic review. *European Journal of Obstetrics, Gynecology, and Reproductive Biology*, 236, 84–93. <https://doi.org/10.1016/j.ejogrb.2019.03.006>
- Pace, N. P., Bonello, A., Roshan, M. H., & Vassallo, J. (2019). Circulating visfatin levels in the second and third trimester of pregnancies with gestational diabetes: A systematic review. *Minerva Ginecologica*, 71(4), 329–343. <https://doi.org/10.23736/S0026-4784.18.04293-4>
- Pergialiotis, V., Karampetsou, N., Bellos, I., Papantoniou, N., & Daskalakis, G. (2019). Nocturnal blood pressure alterations in patients with preeclampsia - Do they really matter? A systematic review of the literature. *European Journal of Obstetrics, Gynecology, and Reproductive Biology*, 239, 39–44. <https://doi.org/10.1016/j.ejogrb.2019.05.028>
- Petrou, S., Yiu, H. H., & Kwon, J. (2019). Economic consequences of preterm birth: A systematic review of the recent literature (2009–2017). *Archives of Disease in Childhood*, 104(5), 456–465. <https://doi.org/10.1136/archdischild-2018-315778>
- Raghavan, R., Dreibelbis, C., Kingshipp, B. L., Wong, Y. P., Abrams, B., Gernand, A. D., Rasmussen, K. M., Siega-Riz, A. M., Stang, J., Casavale, K. O., Spahn, J. M., & Stoody, E. E. (2019a). Dietary patterns before and during pregnancy and birth outcomes: A systematic review. *American Journal of Clinical Nutrition*, 109(Suppl\_7), 729S–756S. <https://doi.org/10.1093/ajcn/nqy353>
- Raghavan, R., Dreibelbis, C., Kingshipp, B. L., Wong, Y. P., Abrams, B., Gernand, A. D., Rasmussen, K. M., Siega-Riz, A. M., Stang, J., Casavale, K. O., Spahn, J. M., & Stoody, E. E. (2019b). Dietary patterns before and during pregnancy and maternal outcomes: A systematic review. *American Journal of Clinical Nutrition*, 109(Suppl\_7), 705S–728S. <https://doi.org/10.1093/ajcn/nqy216>
- Rodrigues, M. R. K., Lima, S. A. M., Mazeto, G. M. F. da S., Calderon, I. M. P., Magalhães, C. G., Ferraz, G. A. R., Molina, A. C., Costa, R. A. de A., Nogueira, V. D. S. N., & Rudge, M. V. C. (2019). Efficacy of vitamin D supplementation in gestational diabetes mellitus: Systematic review and meta-analysis of randomized trials. *PLOS ONE*, 14(3), e0213006. <https://doi.org/10.1371/journal.pone.0213006>
- Shorey, S., Ang, L., & Chee, C. Y. I. (2019). A systematic mixed-studies review on mindfulness-based childbirth education programs and maternal outcomes. *Nursing Outlook*, 67(6), 696–706. <https://doi.org/10.1016/j.outlook.2019.05.004>
- Smith, V., Nair, A., Warty, R., Sursas, J. A., da Silva Costa, F., & Wallace, E. M. (2019). A systematic review on the utility of non-invasive electrophysiological assessment in evaluating for intra uterine growth restriction. *BioMed Central Pregnancy and Childbirth*, 19(1), 230. <https://doi.org/10.1186/s12884-019-2357-9>
- Syngelaki, A., Sequeira Campos, M., Roberge, S., Andrade, W., & Nicolaides, K. H. (2019). Diet and exercise for preeclampsia prevention in overweight and obese pregnant women: Systematic review and meta-analysis. *Journal of Maternal-Fetal & Neonatal Medicine*, 32(20), 3495–3501. <https://doi.org/10.1080/14767058.2018.1481037>

- Tao, H., Wang, R., Liu, W., Zhao, Y., & Zou, L. (2019). The value of intrapartum ultrasound in the prediction of persistent occiput posterior position: Systematic review and meta-analysis. *European Journal of Obstetrics, Gynecology, and Reproductive Biology*, *238*, 25–32. <https://doi.org/10.1016/j.ejogrb.2019.04.041>
- Thomson, G., Feeley, C., Moran, V. H., Downe, S., & Oladapo, O. T. (2019). Women's experiences of pharmacological and non-pharmacological pain relief methods for labour and childbirth: A qualitative systematic review. *Reproductive Health*, *16*(1), 71. <https://doi.org/10.1186/s12978-019-0735-4>
- Townsend, R., Khalil, A., Premakumar, Y., Allotey, J., Snell, K. I. E., Chan, C., Chappell, L. C., Hooper, R., Green, M., Mol, B. W., Thilaganathan, B., Thangaratinam, S., & IPPIC Network. (2019). Prediction of pre-eclampsia: Review of reviews. *Ultrasound in Obstetrics & Gynecology*, *54*(1), 16–27. <https://doi.org/10.1002/uog.20117>
- Uvnäs-Moberg, K., Ekström-Bergström, A., Berg, M., Buckley, S., Pajalic, Z., Hadjigeorgiou, E., Kotłowska, A., Lengler, L., Kielbratowska, B., Leon-Larios, F., Magistretti, C. M., Downe, S., Lindström, B., & Dencker, A. (2019). Maternal plasma levels of oxytocin during physiological childbirth—A systematic review with implications for uterine contractions and central actions of oxytocin. *BioMed Central Pregnancy and Childbirth*, *19*(1), 285. <https://doi.org/10.1186/s12884-019-2365-9>
- van Houdt, C. A., Oosterlaan, J., van Wassenaer-Leemhuis, A. G., van Kaam, A. H., & Aarnoudse-Moens, C. S. H. (2019). Executive function deficits in children born preterm or at low birthweight: A meta-analysis. *Developmental Medicine and Child Neurology*, *61*(9), 1015–1024. <https://doi.org/10.1111/dmcn.14213>
- Wada, K., Charland, L. C., & Bellingham, G. (2019). Can women in labor give informed consent to epidural analgesia? *Bioethics*, *33*(4), 475–486. <https://doi.org/10.1111/bioe.12517>
- Xia, Q., Wang, T., Xian, J., Song, J., Qiao, Y., Mu, Z., Liu, H., & Sun, Z. (2020). Relation of chlamydia trachomatis infections to ectopic pregnancy: A meta-analysis and systematic review. *Medicine*, *99*(1), e18489. <https://doi.org/10.1097/MD.00000000000018489>
- Zhang, Y., Zhou, J., Ma, Y., Liu, L., Xia, Q., Fan, D., & Ai, W. (2019). Mode of delivery and preterm birth in subsequent births: A systematic review and meta-analysis. *PLOS ONE*, *14*(3), e0213784. <https://doi.org/10.1371/journal.pone.0213784>
- Zhou, Z., Lei, Y., Wei, W., Zhao, Y., Jiang, Y., Wang, N., Li, X., & Chen, X. (2019). Association between prenatal exposure to bisphenol a and birth outcomes: A systematic review with meta-analysis. *Medicine*, *98*(44), e17672. <https://doi.org/10.1097/MD.00000000000017672>

### Recent Evidence-Based Reviews: Infant Health and Breastfeeding

- Abbass-Dick, J., Brown, H. K., Jackson, K. T., Rempel, L., & Dennis, C.-L. (2019). Perinatal breastfeeding interventions including fathers/partners: A systematic review of the literature. *Midwifery*, *75*, 41–51. <https://doi.org/10.1016/j.midw.2019.04.001>
- Bedwell, S., Leasure, A. R., & Gibson, T. L. (2019). Interventions for the management of respiratory distress in late preterm and term infants experiencing delayed respiratory transition: A systematic review. *Dimensions of Critical Care Nursing*, *38*(4), 192–200. <https://doi.org/10.1097/DCC.0000000000000365>
- Bi, L.-W., Yan, B.-L., Yang, Q.-Y., Li, M.-M., & Cui, H.-L. (2019). Probiotic strategies to prevent necrotizing enterocolitis in preterm infants: A meta-analysis. *Pediatric Surgery International*, *35*(10), 1143–1162. <https://doi.org/10.1007/s00383-019-04547-5>
- Cheng, L. Y., Wang, X., & Mo, P. K.-H. (2019). The effect of home-based intervention with professional support on promoting breastfeeding: A systematic review. *International Journal of Public Health*, *64*(7), 999–1014. <https://doi.org/10.1007/s00038-019-01266-5>
- Coca, K. P., Amir, L. H., Alves, M. D. R. da S., Barbieri, M., Marcacine, K. O., & de Vilhena Abranches, A. C. F. (2019). Measurement tools and intensity of nipple pain among women with or without damaged nipples: A quantitative systematic review. *Journal of Advanced Nursing*, *75*(6), 1162–1172. <https://doi.org/10.1111/jan.13908>
- Hujoel, P. P. (2019). Breastfeeding and handedness: A systematic review and meta-analysis of individual participant data. *Laterality*, *24*(5), 582–599. <https://doi.org/10.1080/1357650X.2018.1555254>
- Jamal, A., Rastkari, N., Dehghaniathar, R., Aghaei, M., Nodehi, R. N., Nasserli, S., Kashani, H., & Yunesian, M. (2019). Prenatal

- exposure to parabens and anthropometric birth outcomes: A systematic review. *Environmental Research*, 173, 419–431. <https://doi.org/10.1016/j.envres.2019.02.044>
- Li, Y., & Ruan, Y. (2019). Association of hypertensive disorders of pregnancy risk and factor V Leiden mutation: A meta-analysis. *Journal of Obstetrics and Gynaecology Research*, 45(7), 1303–1310. <https://doi.org/10.1111/jog.13976>
- Liu, X., Ding, G., Yang, W., Feng, X., Li, Y., Liu, H., Zhang, Q., Ji, L., & Li, D. (2019). Maternal body mass index and risk of congenital heart defects in infants: A dose-response meta-analysis. *BioMed Research International*, 2019, 1315796. <https://doi.org/10.1155/2019/1315796>
- Matsunaka, E., Ueki, S., & Makimoto, K. (2019). Impact of breastfeeding and/or bottle-feeding on surgical wound dehiscence after cleft lip repair in infants: A systematic review. *Journal of Cranio-Maxillo-Facial Surgery*, 47(4), 570–577. <https://doi.org/10.1016/j.jcms.2019.01.019>
- Morris, I. P., Goel, N., & Chakraborty, M. (2019). Efficacy and safety of systemic hydrocortisone for the prevention of bronchopulmonary dysplasia in preterm infants: A systematic review and meta-analysis. *European Journal of Pediatrics*, 178(8), 1171–1184. <https://doi.org/10.1007/s00431-019-03398-5>
- Nakhash, R., Wasserteil, N., Mimouni, F. B., Kasirer, Y. M., Hammerman, C., & Bin-Nun, A. (2019). Upper lip tie and breastfeeding: A systematic review. *Breastfeeding Medicine*, 14(2), 83–87. <https://doi.org/10.1089/bfm.2018.0174>
- Newmark, R. L., Bogen, D. L., Wisner, K. L., Isaac, M., Ciolino, J. D., & Clark, C. T. (2019). Risk-benefit assessment of infant exposure to lithium through breast milk: A systematic review of the literature. *International Review of Psychiatry*, 31(3), 295–304. <https://doi.org/10.1080/09540261.2019.1586657>
- Ng, C. A., Ho, J. J., & Lee, Z. H. (2019). The effect of rooming-in on duration of breastfeeding: A systematic review of randomised and non-randomised prospective controlled studies. *PLOS ONE*, 14(4), e0215869. <https://doi.org/10.1371/journal.pone.0215869>
- Nguyen, P. T. H., Pham, N. M., Chu, K. T., Van Duong, D., & Van Do, D. (2019). Gestational diabetes and breastfeeding outcomes: A systematic review. *Asia-Pacific Journal of Public Health*, 31(3), 183–198. <https://doi.org/10.1177/1010539519833497>
- Pupala, S. S., Rao, S., Strunk, T., & Patole, S. (2019). Topical application of coconut oil to the skin of preterm infants: A systematic review. *European Journal of Pediatrics*, 178(9), 1317–1324. <https://doi.org/10.1007/s00431-019-03407-7>
- Sigurdson, K., Mitchell, B., Liu, J., Morton, C., Gould, J. B., Lee, H. C., Capdarest-Arest, N., & Profit, J. (2019). Racial/ethnic disparities in neonatal intensive care: A systematic review. *Pediatrics*, 144(2). <https://doi.org/10.1542/peds.2018-3114>
- Spahn, J. M., Callahan, E. H., Spill, M. K., Wong, Y. P., Benjamin-Neelon, S. E., Birch, L., Black, M. M., Cook, J. T., Faith, M. S., Mennella, J. A., & Casavale, K. O. (2019). Influence of maternal diet on flavor transfer to amniotic fluid and breast milk and children's responses: A systematic review. *American Journal of Clinical Nutrition*, 109(Suppl\_7), 1003S–1026S. <https://doi.org/10.1093/ajcn/nqy240>
- Tang, Z., Wei, Z., Wen, F., & Wu, Y. (2019). Efficacy of zinc supplementation for neonatal sepsis: A systematic review and meta-analysis. *Journal of Maternal-Fetal & Neonatal Medicine*, 32(7), 1213–1218. <https://doi.org/10.1080/14767058.2017.1402001>
- Tarry-Adkins, J. L., Aiken, C. E., & Ozanne, S. E. (2019). Neonatal, infant, and childhood growth following metformin versus insulin treatment for gestational diabetes: A systematic review and meta-analysis. *PLOS Medicine*, 16(8), e1002848. <https://doi.org/10.1371/journal.pmed.1002848>
- Uguz, F. (2019). The use of antidepressant medications during pregnancy and the risk of neonatal seizures: A systematic review. *Journal of Clinical Psychopharmacology*, 39(5), 479–484. <https://doi.org/10.1097/JCP.0000000000001093>
- Xing, L., Wang, G., Chen, R., Ren, J., Qian, J., & Huang, Y. (2019). Is chorioamnionitis associated with neurodevelopmental outcomes in preterm infants? A systematic review and meta-analysis following PRISMA. *Medicine*, 98(50), e18229. <https://doi.org/10.1097/MD.00000000000018229>
- Zhang, D., Zhang, Y., Sang, Y., Zheng, N., & Liu, X. (2019). The relationship between infant colic and migraine as well as tension-type headache: A meta-analysis. *Pain Research & Management*, 2019, 8307982. <https://doi.org/10.1155/2019/8307982>
- Zhang, M., Wang, L., Wang, Y., & Tang, J. (2019). The influence of massage on neonatal

hyperbilirubinemia: A meta-analysis of randomized controlled trials. *Journal of Maternal-Fetal & Neonatal Medicine*, 32(18), 3109–3114. <https://doi.org/10.1080/14767058.2018.1455183>

**Featured review:** Matsunaka, E., Ueki, S., & Makimoto, K. (2019). Impact of breastfeeding and/or bottle-feeding on surgical wound dehiscence after cleft lip repair in infants: A systematic review. *Journal of Cranio-Maxillo-Facial Surgery*, 47(4), 570–577. <https://doi.org/10.1016/j.jcms.2019.01.019>

Cheiloplasty, or cleft lip repair surgery, most usually occurs around 3 months of age, well after feeding methods have been established (Matsunaka et al., 2019). During the post-operative period, parents are often advised to feed the infant with a spoon or cup out of fear that the suction required to breast- or bottle-feed would interfere with wound healing. In this systematic review, the authors explored whether that advice is necessary.

The review included five studies: three randomized, controlled trials and two cohort studies. The combined sample size across all included studies was 342 infants. Overall, four wound dehiscence events were recorded: three in cup/spoon feeding groups (two were thought to be secondary to falls rather than feeding) and one for which the feeding group was not noted, but the authors in the original study claimed that the dehiscence was unrelated to feeding method (Matsunaka et al., 2019). In two of the included studies, secondary outcomes related to weight gain were reported. In both cases, the breast- or bottle-feeding group fared better. Matsunaka et al. (2019) found no reason not to continue with the established feeding method, whether breast- or bottle-feeding, for infants undergoing cheiloplasty.

**Comment:** Unfortunately, this body of evidence is too small, and the studies included in this review have too many methodologic flaws for evidence-based conclusions to be drawn. The expected incidence of wound dehiscence following cheiloplasty is 1.3% (Kantar et al., 2018); thus among 342 surgeries we would

expect four events, exactly as observed. However, four events across four studies have very little statistical power. The fact that no dehiscence events were observed in the breast- or bottle-feeding groups is somewhat comforting, but because the sample sizes were so small, we cannot say with any degree of confidence that such events would not be observed given a larger study sample.

Because this surgery usually occurs when infants are 3–6 months old, they have well-established feeding routines. It is easy to imagine a scenario in which cheiloplasty followed by surgeon-recommended spoon or cup feeding leads to early weaning, particularly in settings in which women do not have access to high-quality breast pumps. The literature summarized by Matsunaka et al. (2019) does not allow us to draw definitive conclusions about preferred feeding method following cleft lip repair, at least in terms of wound healing. However, this also means that cup or spoon feeding has not been shown to be beneficial. Until such time as larger, more definitive studies are conducted, it seems that the known benefits of avoiding early weaning likely outweigh the unproven claims of increased wound dehiscence if breastfeeding continues.

## REFERENCES

Kantar, R. S., Cammarata, M. J., Rifkin, W. J., Plana, N. M., Diaz-Siso, J. R., & Flores, R. L. (2018). Outpatient versus inpatient primary cleft lip and palate surgery: Analysis of early complications. *Plastic and Reconstructive Surgery*, 141(5), 697e–706e. <https://doi.org/10.1097/PRS.0000000000004293>

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Ameh, C. A., Mdegela, M., White, S., & van den Broek, N. (2019). The effectiveness of training in emergency obstetric care: A systematic literature review. *Health Policy and Planning*, 34(4), 257–270. <https://doi.org/10.1093/heapol/czz028>

Umar, A., Ameh, C. A., Muriithi, F., & Mathai, M. (2019). Early warning systems in obstetrics: A systematic literature review. *PLOS ONE*, 14(5), e0217864. <https://doi.org/10.1371/journal.pone.0217864>