

# **Patient Education Kit for Migraine**

AHS Complementary and Integrative Medicine Special Interest Section

# **Pregnancy and Breastfeeding**

Non-pharmacologic therapies are considered first line treatments for migraine in pregnancy and breastfeeding. Ideally, these treatments should be initiated during pregnancy planning to allow time for adjustment to lifestyle changes, as well as to learn the skills necessary for some therapeutic options.

We recommend patients discuss the below recommendations with their Ob/Gyn or treating providers prior to implementation.

## Lifestyle

## Sleep

Sleep is important for health, particularly during pregnancy.<sup>1</sup> Poor sleep can be associated with worsened headaches and quality of life.<sup>2</sup> Healthy sleep hygiene should consist of consistent sleep and wake times with an adequate duration (between 7-9 hours per night).<sup>3</sup> Eliminating distractions before bed, such as screentime, is essential.<sup>3</sup> If you snore or have difficulty falling asleep or staying asleep, please let your medical providers know, as sleep disorders are common in those with headache.<sup>2</sup>

## Exercise

- Participating in exercise during pregnancy and breastfeeding has demonstrated improvement in migraine, as well as in conditions that frequently co-occur in those with migraine, such as anxiety, depression, and sleep disorders.<sup>4,5</sup>
- For individuals with uncomplicated pregnancies, it is recommended to participate in 30-60 minutes of low-impact exercise at least 3-4 days per week. Activities typically considered safe in pregnancy include walking, stationary cycling, aerobic exercise, dancing, resistance exercise, stretching, water aerobics, and yoga.<sup>5,6</sup>
- If you have other medical conditions or a more complicated pregnancy course, please discuss physical activity recommendations with your medical provider prior to participating.

#### > Nutrition

- A well-balanced diet is important for a healthy pregnancy and breastfeeding journey.<sup>7</sup> While no specific diet has been recommended in pregnancy/breastfeeding or in migraine, there are a few general suggestions that are thought to be helpful for both.<sup>8,9</sup>
  - Maintain a consistent eating schedule.
  - Stay well-hydrated.
  - Avoid foods that you know can trigger your headaches.
  - Try to maintain healthy weight gain during pregnancy.
  - Discuss prenatal supplements with obstetrician.

## • Behavioral/Complementary Approaches

## Cognitive Behavioral Therapy (CBT)

CBT helps to build skills to help change how we think, feel and act. It can reduce
the frequency of migraine attacks and may be able to treat refractory insomnia.<sup>10</sup>
Ask your primary care provider how to find a certified therapist.

#### Biofeedback

This is a mind-body therapy aimed at teaching you to gain active control over your body's physical, automatic responses, such as heart rate variability or muscle tension. This training has been shown to be effective in treating headache in pregnancy, with long lasting results.<sup>11,12</sup>

## Relaxation/Mindfulness

- Stress is a common migraine trigger, and some elements of stress are hard to avoid in pregnancy and the post-partum period.<sup>13</sup> Gaining better control of stress through mindfulness and relaxation skills can help improve migraine.<sup>14</sup>
- Relaxation can involve techniques such as breathing exercises, guided imagery, and progressive muscle relaxation. Mindfulness therapies focus on the present moment and appreciating experiences without judgment.
- Mindfulness-based stress reduction therapy, a structured therapy that teaches mindful practices, has been shown to improve migraine and overall functioning.<sup>15</sup>

## Acupuncture

- Acupuncture is a traditional Chinese medical treatment in which needles are inserted into specific points on the body to improve various medical conditions.
   Acupuncture can decrease the frequency of migraine and tension type headache attacks and has been deemed a safe therapy in pregnancy.<sup>16,17</sup>
- Note: Some acupuncture points potentially can stimulate premature labor. It is essential that patients consult their treating medical provider before undergoing acupuncture, and it is essential for patients to let their acupuncture provider know that they are pregnant before starting treatment.
- **Supplements**: Several vitamins and supplements have been shown to be useful for treatment of migraine. Please be sure to speak with your Ob/Gyn or medical provider before starting any supplement or vitamin during pregnancy or breastfeeding. Avoid combination supplements as they may contain ingredients that are not safe in pregnancy or lactation.

### Magnesium

- Has benefit in migraine prevention, particularly in those with migraine with aura.<sup>18</sup>
- Avoid magnesium sulfate, which has more recently shown bone abnormalities in fetuses with prolonged IV use.<sup>19</sup>
- Considered safe in breastfeeding, as levels in breastmilk are not affected by dietary intake.<sup>20</sup>

## Coenzyme Q10 (CoQ10)

- May be effective for migraine prevention.<sup>21</sup>
- Considered safe in pregnancy and has been used to prevent other conditions in pregnancy, such as pre-eclampsia.<sup>7</sup>
- Considered low risk in breastfeeding. Safest to start at least 2 weeks after delivery when levels are reduced in breast milk.<sup>22</sup>
- Dosed at 100mg three times per day.<sup>21</sup>

## Riboflavin (Vitamin B2)

- Considered probably effective for migraine prevention.<sup>4</sup>
- Safe at physiologic doses in pregnancy, however has not been studied for use at supratherapeutic doses in pregnancy or breastfeeding.<sup>20</sup>
- Dosed at 400mg daily.<sup>4</sup>

#### References

- Peters AEJ, Verspeek LB, Nieuwenhuijze M, Harskamp-van Ginkel MW, Meertens RM. The relation between sleep quality during pregnancy and health-related quality of life-a systematic review. *J Matern Fetal Neonatal Med.* 2023;36(1):2212829.
- 2. Freedom T, Evans RW. Headache and sleep. Headache. 2013;53(8):1358-1366.
- 3. Irish LA, Kline CE, Gunn HE, Buysse DJ, Hall MH. The role of sleep hygiene in promoting public health: A review of empirical evidence. *Sleep Med Rev.* 2015;22:23-36.
- 4. Wells RE, Turner DP, Lee M, Bishop L, Strauss L. Managing Migraine During Pregnancy and Lactation. *Curr Neurol Neurosci Rep.* 2016;16(4):40.
- 5. Physical Activity and Exercise During Pregnancy and the Postpartum Period: ACOG Committee Opinion Summary, Number 804. *Obstet Gynecol*. 2020;135(4):991-993.
- 6. Jiang Q, Wu Z, Zhou L, Dunlop J, Chen P. Effects of yoga intervention during pregnancy: a review for current status. Am J Perinatol. 2015;32(6):503–14.
- 7. Airola G, Allais G, Castagnoli Gabellari I, Rolando S, Mana O, Benedetto C. Non-pharmacological management of migraine during pregnancy. *Neurol Sci.* 2010;31:S63-S65.
- 8. Hindiyeh NA, Zhang N, Farrar M, Banerjee P, Lombard L, Aurora SK. The Role of Diet and Nutrition in Migraine Triggers and Treatment: A Systematic Literature Review. *Headache*. 2020;60(7):1300-1316.
- 9. De Vito M, Alameddine S, Capannolo G, et al. Systematic Review and Critical Evaluation of Quality of Clinical Practice Guidelines on Nutrition in Pregnancy. *Healthcare (Basel)*. 2022;10(12):2490.
- 10. Riggins N, Ehrlich A. The Use of Behavioral Modalities for Headache During Pregnancy and Breastfeeding. *Curr Pain Headache Rep.* 2021;25(10):66.
- 11. Marcus DA, Scharff L, Turk DC (1995) Nonpharmacological management of headaches during pregnancy. Psychosom Med 57:527–535 S64 Neurol Sci (2010) 31 (Suppl 1):S63–S65
- 12. Scharff L, Marcus DA, Turk DC (1996) Maintenance of effects in the nonmedical treatment of headaches during pregnancy. Headache 36(5):285–290
- 13. Peroutka SJ. What turns on a migraine? A systematic review of migraine precipitating factors. Curr Pain Headache Rep. 2014;18(10):454.
- 14. Wells RE, Burch R, Paulsen RH, Wayne PM, Houle TT, Loder E. Meditation for migraines: a pilot randomized controlled trial. Headache. 2014;54(9):1484–95.
- 15. Wells RE, O'Connell N, Pierce CR, et al. Effectiveness of Mindfulness Meditation vs Headache Education for Adults With Migraine: A Randomized Clinical Trial. *JAMA Intern Med.* 2021;181(3):317–328.
- 16. J.B. Guerreiro da Silva, M.U. Nakamura, J.A. Cordeiro, L. Kulay, Acupuncture for tension-type headache in pregnancy: A prospective, randomized, controlled study, European Journal of Integrative Medicine, 4:4, 2012, 366-370.
- 17. Linde K, Allais G, Brinkhaus B, Manheimer E, Vickers A, White AR (2009) Acupuncture for migraine prophylaxis. Cochrane Database Syst Rev (1): CD001218
- 18. Ariyanfar, S., Razeghi Jahromi, S., Togha, M. *et al.* Review on Headache Related to Dietary Supplements. *Curr Pain Headache Rep* 26, 193–218 (2022).
- 19. Burch R. Headache in Pregnancy and the Puerperium. Neurol Clin. 2019;37(1):31-51.
- 20. Burch R. Epidemiology and Treatment of Menstrual Migraine and Migraine During Pregnancy and Lactation: A Narrative Review. *Headache*. 2020;60(1):200-216.
- Sa´ndor PS, Di Clemente L, Coppola G, Saenger U, Fumal A, Magis D, Seidel L, Agosti RM, Shoenen J (2005) Efficacy of coenzyme Q10 in migraine prophylaxis: a randomized controlled trial. Neurology 64(4):713–715
- 22. Niklowitz P, Menke T, Giffei J, Andler W. Coenzyme Q10 in maternal plasma and milk throughout early lactation. *Biofactors*. 2005;25(1-4):67-72.