

Relaxation for mothers of infants at risk of poor growth and development MAMI Global Network, January 2025

Background

Counselling and support on maternal mental health is a core component of the [MAMI Care Pathway](#). **Relaxation techniques** are one approach that have been applied in different contexts to help mothers cope with their circumstances, build her resilience and to improve both maternal and infant wellbeing.

MAMI Implementers' meetings held in April 2023, February and May 2024 highlighted many questions around maternal stress and interest in applying practical methods. Resources are generally Western overviews and this is a critical bias and gap.

To help others consider this in their context, we share key tools and supporting evidence and welcome practitioners to share any other relevant audiovisual material and experiences with us at mami@enonline.net

Tools

[MAMI Counselling Cards and Support Actions Booklet](#) Card C 5 Relaxation I (page 73) Card C 6 Relaxation II (page 75) (see images below), part of the [MAMI Care Pathway v3](#) (ENN, LSHTM, 2021)).

[MAMI relaxation teaching session for mothers](#) (GOAL Ethiopia). MAMI YouTube. Jan. 2025. Given by a research nurse as part of a Randomised Control Trial on MAMI in Ethiopia. See instructions in box below.

[Progressive Muscle Relaxation. Stress Reduction Exercises](#). John Hopkins Medicine. Dr Neda Gould, Psychologist.

[Progressive Muscle Relaxation. Learning how to deal with stress](#). Bridge the gAPP. Eastern Health NL.

[Relaxation techniques](#). Yukonu University (2013).

Self-soothing and trauma techniques for mothers and infants: [Tapping](#) (Peaceful Heart Network) [Havening](#) (Humanitarian Havening). *MAMI YouTube* May 2024.

Progressive Muscle Relaxation instructions (from Ethiopia Randomised Control Trial)

Progressive muscle relaxation was offered to mothers enrolled in the MAMI Care Pathway randomized control trial. This teaching video was done by Tigist, a research nurse, working with GOAL as part of the trial. It demonstrates how breathing and relaxation steps are explained to mothers.

Sit in a relaxed position and lean back. Breathe deeply then progressively tense up and relax each muscle. Each contraction of a muscle is done for 10 seconds while taking a breath, followed by breathing out and relaxing.

“Breathing”: Stretch, then take a deep breath in and breath out 3 to 5 times.

“Relaxing the face”: Squeeze the muscles in your forehead: Lift your eyebrows as high as possible, pushing them up to feel tension in your forehead and scalp areas. Hold this for ten seconds before slowly relaxing and releasing the tension.

“Relaxing the eyes and nose”: Close your eyes very tightly, narrowing them tightly until you feel the tension around your eyes. At the same time, wrinkle your nose, feeling the tension around the eyes, nose, and upper cheeks. Hold this for ten seconds before slowly relaxing and releasing the tension around your eyes and nose. Then keep your eyes closed and focus on the relaxed feelings around your eyes and nose for ten seconds and release slowly.

“Relaxing the jaw and neck”: Tense your jaw by biting your teeth and feeling the tension in your jaw. Then bring your head down and press your chin towards your chest, noticing the tightness around your mouth, jaw, and front part of your neck. Hold this for ten seconds before relaxing and releasing the tension. Keep these parts of your face and neck relaxed for ten seconds.

“Relaxing the shoulders”: Move forward in the chair and bring your elbows up and back so that you can feel your shoulder blades being squeezed together. Hold this for ten seconds before relaxing and releasing the tension by sitting back in the chair, placing your arms in your lap and allowing your shoulders to fall back into their normal position. Feel the release of tension in your shoulders and down the middle of your back.

“Relaxing the chest”: Tighten your chest by taking a deep breath and then holding it. At the same time, your chest is pushed out, feel the tension in your shoulders and upper back. Then feel the tension in your chest as you fill your lungs with air. Hold this for ten seconds before relaxing and slowly breathing out. Finally, relax for ten seconds.

“Relaxing the stomach”: Tighten your stomach by pulling it in, then feel the tension in your stomach and how hard it feels. Now relax, releasing the tightness in your stomach. Finally, relax for ten seconds.

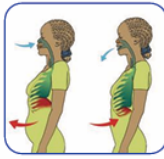
“Relaxing the arms”: Stretch out your right hand out first, tighten the fist and hold this for 10 seconds. Repeat this with the left hand. Stretch both arms straight out, make tight fists and tighten whole arms from hands to shoulders. Feel the tension in your biceps, forearms, elbows, wrists and fingers. Hold this for 10 seconds before relaxing, releasing the tension by bending your arms at the elbows and resting them on your lap. Feel the release of tension from your arms.

“Relaxing the legs”: Lift your right leg off the floor so that your leg is fully stretched in front of you. Curl your toes inward towards yourself and tighten your whole leg as much as possible. Feel the tension in your foot, calf, knees and thighs. Hold this for ten seconds before relaxing, slowly releasing the tension in your leg by lowering it and bending your knee slightly so that your foot is on the floor. Finally, relax the entire length of your leg. Repeat the process with your left leg, holding and then relaxing each part. Feel relaxed through the entire length of this leg.

“Relaxing your body”: Finally, after taking all the steps, relax your whole body. Then keep your eyes closed and let yourself be in a relaxed position for a while. After ten seconds take your own time and slowly open your eyes. Now, you should feel renewed and refreshed.

MAMI Care Pathway Package, Counselling Cards and Support Actions

Card C5 Relaxation I



Assess and Analyse

Anxiety, fatigue, and emotional stress may affect the success of breastfeeding.

Counselling and Support Actions

Refer to 'Counselling and Communication Skills' for tips on communicating.

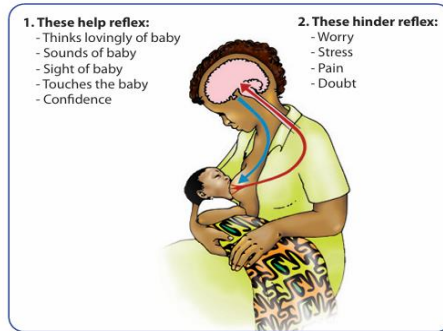
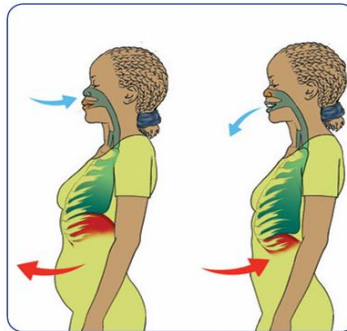
- Relaxation techniques help with stimulating milk flow and contribute to successful and continued breastfeeding. The more relaxed the mother is the more the milk flow is stimulated.
- Different relaxation techniques exist. Examine these with the mother and discuss preferred method.

Note: It is helpful for the technique to have: 1) a repetitive stimulus (word, sound, or breathing), 2) relaxed muscles, and 3) a quiet environment.

Deep breathing

Note: It is natural to take long, deep breaths, when relaxed. However, during the fight-or-flight response, breathing becomes rapid and shallow. Deep breathing reverses this and sends messages to the brain to begin calming the body. Practice will make your body respond more efficiently to deep breathing in the future.

- Breathe in slowly.
- Count in your head and make sure the inward breath lasts at least 5 seconds.
- Pay attention to the feeling of the air filling your lungs.
- Hold your breath for 5 to 10 seconds (again, keep count).
- You do not want to feel uncomfortable, but it should last quite a bit longer than an ordinary breath.
- Breathe out very slowly for 5 to 10 seconds (count!).
- Pretend like you are breathing through a straw to slow yourself down. Try using a real straw to practice.
- Repeat the breathing process until you feel calm.



Card C6 Relaxation II



Assess and Analyse

Anxiety, fatigue, and emotional stress may affect the success of breastfeeding.

Counselling and Support Actions

- Relaxation techniques help with stimulating milk flow and contribute to successful and continued breastfeeding. The more relaxed the mother is the more milk flow is stimulated.
 - Different relaxation techniques exist. Examine these with the mother and discuss preferred method.
 - Examples of relaxation technique include: breathing exercises guided by an audio recording, listening to music, massage, and others.
- Note:** It is helpful for the technique to have: 1) a repetitive stimulus (word, sound, or breathing), 2) relaxed muscles, and 3) a quiet environment.

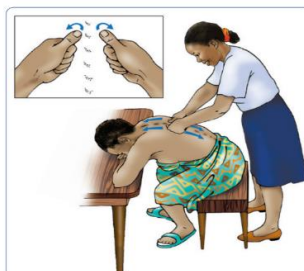
Squeeze-hug technique

- Ask mother or caregiver (either standing or sitting in a chair) to make sure both soles of their feet are flat on the ground.
- Move the feet (stamping lightly on the ground or sliding them from side to side but keeping the soles of the feet on the ground at all times), and then while keeping the mother/caregivers feet pressed to the ground, ask them to imagine they are pressing their feet into warm soft sand, or soft earth.
- Then ask her to cross her arms in front of her, and using opposite hand on opposite arm, get her to gently squeeze her hand on her arm, moving from the shoulder down to the elbow, and then from the elbow down to the wrist and back again to the elbow. Gently squeezing down both arms at the same time.
- Then ask her to wrap her arms around herself so that her hands are touching her back/shoulder blades. Gently giving herself a squeeze evenly and gently for about one minute. Then release arms.

Back massage technique (with partner)

- Mother sits at the table resting her head on her arms, as relaxed as possible.
- Explain that it is important for her breasts and her back to be naked.
- Chair should be far enough away from the table for her breasts to hang free.
- Rub both sides of her spine with thumbs, making small circular movements, from her neck to her shoulder blades.
- Ask her how she feels, and if it makes her feel relaxed.

Note: this technique can be demonstrated during the counselling session for the mother and partner to practice at home.



References

- Abera M, Hanlon C, Daniel B, *et al.* [Effects of relaxation interventions during pregnancy on maternal mental health, and pregnancy and newborn outcomes: A systematic review and meta-analysis.](#) *PLoS ONE* 2024; 19(1): e0278432. <https://doi.org/10.1371/journal.pone.0278432>
- Yu J, Wei Z, Wells JC, Fewtrell M. [Effects of relaxation therapy on maternal psychological status and infant growth following late preterm and early-term delivery: a randomized controlled trial.](#) *Am J Clin Nutr.* 2023 Feb;117(2):340-349. doi: 10.1016/j.ajcnut.2022.12.002. Epub 2022 Dec 22. PMID: 36811573.
Conclusion: the relaxation meditation tape is a simple, effective practical tool that could easily be used in clinical settings to support breastfeeding mothers after delivery. The findings need confirmation in larger groups and other populations.
- Dib S, Kittisakmontri K, Wells JC, Fewtrell M. [Interventions to improve breastfeeding outcomes in late preterm and early term infants.](#) *Breastfeed Med.* 2022 Oct;17(10):781-792. doi: 10.1089/bfm.2022.0118.
- Dib S, Wells JCK, Eaton S, Fewtrell M. [A Breastfeeding relaxation intervention promotes growth in late preterm and early term infants: results from a randomized controlled trial.](#) *Nutrients.* 2022 Nov 27;14(23):5041. doi: 10.3390/nu14235041. PMID: 36501071; PMCID: PMC9737302.
Conclusion: A simple relaxation intervention during breastfeeding could be beneficial in promoting growth of late preterm and early term infants. Further research of other biological and behavioural mediators is warranted.
- Dib S, Wells JCK, Fewtrell M. [A within-subject comparison of different relaxation therapies in eliciting physiological and psychological changes in young women.](#) *Peer J.* 2020 May 22;8:e9217. doi: 10.7717/peerj.9217. PMID: 32509467; PMCID: PMC7247525.
Conclusion: No association between perceived and physiological indicators of relaxation – showing that interventions may be achieving a positive effect even though women can't tell us they are having these benefits.
- Dib S, Wells JCK, Fewtrell M. [Mother And late Preterm Lactation Study \(MAPLeS\): a randomised controlled trial testing the use of a breastfeeding meditation by mothers of late preterm infants on maternal psychological state, breast milk composition and volume, and infant behaviour and growth.](#) *Trials.* 2020 Apr 7;21(1):318. doi: 10.1186/s13063-020-4225-3. PMID: 32264947; PMCID: PMC7137320.
- Mohd Shukri NH, Wells J, Eaton S *et al.* [Randomized controlled trial investigating the effects of a breastfeeding relaxation intervention on maternal psychological state, breast milk outcomes, and infant behavior and growth.](#) *Am J Clin Nutr.* 2019 Jul 1;110(1):121-130. doi: 10.1093/ajcn/nqz033. PMID: 31161202.
Conclusion: Effectiveness of simple relaxation intervention for improving maternal and infant outcomes and potential areas for investigation in settings with high stress/where mothers are more stressed, e.g. preterm or low birthweight.
- Yu J, Wells J, Wei Z, Fewtrell M. [Randomized trial comparing the physiological and psychological effects of different relaxation interventions in Chinese women breastfeeding their healthy term infant.](#) *Breastfeed Med.* 2019 Jan/Feb;14(1):33-38. doi: 10.1089/bfm.2018.0148. Epub 2018 Oct 23. PMID: 30351172.
- Yu J, Wells J, Wei Z, Fewtrell M. [Effects of relaxation therapy on maternal psychological state, infant growth and gut microbiome: protocol for a randomised controlled trial investigating mother-infant signalling during lactation following late preterm and early term delivery.](#) *Int Breastfeed J.* 2019 Dec 16;14:50. doi: 10.1186/s13006-019-0246-5. PMID: 31889973; PMCID: PMC6916017.
- Mohd Shukri NH, Wells J, Fewtrell M. [The effectiveness of interventions using relaxation therapy to improve breastfeeding outcomes: A systematic review.](#) *Matern Child Nutr.* 2018;14:e12563. doi.org/10.1111/mcn.12563
- Shukri NHM, Wells J, Mukhtar F, Lee MHS, Fewtrell M. [Study protocol: An investigation of mother-infant signalling during breastfeeding using a randomised trial to test the effectiveness of breastfeeding relaxation therapy on maternal psychological state, breast milk production and infant behaviour and growth.](#) *Int Breastfeed J.* 2017 Jul 14;12:33. doi: 10.1186/s13006-017-0124-y. PMID: 28725257; PMCID: PMC5512827.
- Patel U, Sharad Gedam DS, Verma M. [Effect of back massage on lactation among postnatal mothers.](#) *Int. J. of Medical Research and Review.* 2013; Vol 1 (no1). <https://doi.org/10.17511/ijmrr.2013.i01.02>
- Fink NS, Urech C, Cavelti M, Alder J. [Relaxation during pregnancy: what are the benefits for mother, fetus, and the newborn? A systematic review of the literature.](#) *J. Perinat. Neonatal. Nurs.* 2012, 26(4): 296-306.