



**OBSTETRICS AND GYNAECOLOGY
 CLINICAL PRACTICE GUIDELINE**

Pain management

(including labour non-pharmacological)

Scope (Staff):	WNHS Obstetrics and Gynaecology Directorate staff
Scope (Area):	Obstetrics and Gynaecology Directorate clinical areas at KEMH, OPH and Community Midwifery Program

This document should be read in conjunction with this [Disclaimer](#)

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Heat- Local application

Enclose the hot pack in a towel or cover. Do **not** apply directly to the skin.

- Note- heat packs are not to be used together with neuraxial (e.g. epidural) pain relief as impaired sensation due to epidural increases risk of burns. If the epidural is ineffective, contact the anaesthetist to review the patient.

For general information and precautions to consider when providing heat and cold therapy- see SCGH / OPH Nursing Practice Guideline No. 53 [Heat Cold Therapy \(SCGOPHCG\)](#).

Epidural and post-operative pain

See WNHS Clinical Guidelines: [Anaesthesia and Pain Medicine](#) (available via HealthPoint to WA Health employees) for:

- Neuraxial Analgesia (epidural and intrathecal)
- PCIA: Postoperative
- PCIA: Remifentanil and other PCIA: In labour
- Rectus Sheath Catheter Analgesia

Pain management in labour

Background

Complementary and Alternative Medicine (CAM) refers to a broad set of health care practices that are not integrated into the dominant health care system.

It has been estimated that as many as 87% of women use CAM during pregnancy, childbirth and postnatally. Substances include but are not limited to aromatherapy essential oils, herbal, homeopathic and Bach® flower remedies. These can be self-administered or given through consultation with practitioners, including acupuncturists, reflexologists, osteopaths and hypnotherapists.

This growth in the use of CAM in maternity care presents midwives with new challenges. Knowledge of and appreciation of the risks and benefits of these therapies are an essential aspect of midwifery care even when the midwives are not be directly involved in administering or advising on them.

Midwives should not incorporate CAM into their practise without obtaining a post registration qualification which is recognised by the appropriate professional body, thus enabling the midwife the right to practise a particular therapy, and registration in the area of Alternative Medicine.

In addition, many complementary and natural remedies continue to be under-evaluated and some are not amenable to randomised control investigative methods. There is evidence that some therapies are not safe or appropriate for use during pregnancy and childbirth.

These interventions are supported by varying degrees of evidence:

- Analgesic use is reduced with continuous one to one support and also with immersion in water.¹
- Relaxation techniques, acupuncture and massage reduce pain particularly in the first stage of labour,¹

Key points

1. Midwives caring for women who choose to consult independent practitioners of complementary therapies and natural remedies should encourage women to ascertain that the practitioners are credentialed to work with pregnant women.
2. Only midwives who have undertaken post registration educational qualifications in specialised techniques and modalities of the recognised CAM should administer or advise pregnant women.
3. These qualifications should be recognised by the appropriate professional body as giving the practitioner the right to practise a particular therapy and registration in the area of Alternative Medicine.

Maternal education

Discuss pain relief options in the antenatal period. Refer to relevant sections in the WNHS [Pregnancy, Birth and Your Baby Book](#) (PDF, 27.2MB).

Consumer information is also available from Australian Government: [healthdirect: Pain relief during labour \(external website\)](#).

Acupuncture

- Only practitioners who are registered with the National Board can practice using protected titles (e.g. acupuncturist) or make claims to be qualified to practice acupuncture.² Registration can be checked online with [AHPRA](#) (external website). A trained registered acupuncturist is the only person who should perform acupuncture at WNHS.
- See also: [Physiotherapy Use of Dry Needling and Western Acupuncture](#) (available to WA Health employees through HealthPoint)

Aromatherapy and essential oils

Key points

1. **Essential oils are for external use only, and should always be diluted.**³
Avoid contact with the eyes or mucous membranes.
2. The WNHS Obstetric Medicines Information Service (Ph 6458 2723) should be contacted if the safety of an essential oil in pregnancy and breastfeeding is unknown.
3. Massage oils should not be used on women with a history of skin allergies or skin disease.
4. Aromatherapy should be used with caution on women with a history of asthma.

Common essential oils during labour

- Some aromatherapy oils may be beneficial for intrapartum anxiety reduction and relaxation.⁴
- Common oils that are used during intrapartum care include: Rose, Lavender, Peppermint, Lemon, Eucalyptus, Bergamot, and Jasmine.
- Note: the use of essential oils for aromatherapy do not typically get absorbed systematically in significant amounts. However, it is important to note that these common oils have either very limited or no specific safety data in pregnancy.⁵⁻¹⁴

Note: Clary Sage (*Salvia Sclerea*) should NOT be used as it may have an effect of increasing / strengthening uterine activity. This may cause potential risk to women with threatened premature labour, or with a uterine scar.¹⁵

Hypnotherapy

Supporting women practicing hypnosis or hypnobirthing

- Provide a quiet, peaceful, low-stimulant environment¹⁶ – this may include assisting the woman to play music or hypnotic suggestion tapes. Advise all personnel who may enter the room the woman is practicing hypnosis. A sign on the Labour and Birth Suite room door may be beneficial.
- Assist women by giving suggestive reminders in labour or positive affirmations as needed.
- Refrain from interrupting the woman during contractions.
- Support the woman's autonomy and right to participate in her care. Maintain open non-judgemental communication so needs and expectations can be expressed between the woman, her support partner and staff, forming a collaborative approach to care.¹⁶
- The woman's affective cues to labour progress may be masked, so observe for objective measures of labour progress and be prepared for unexpected progression in dilation and descent.¹⁶

Sterile water for injection (intra dermal)

- WNHS offers sterile water injections (intra dermal) for lower back pain¹⁷ for women in labour.
- It should only be performed by a person who has completed the recommended preparation. See [WNHS Education: Self-directed eLearning](#): 'Intra dermal Sterile Water Injections for Lower Back Pain in Labour' Learning Package.
 - Following self-directed learning package, a 'Sterile Water for Injection Clinical Skill Assessment Tool' is to be completed. See [WNHS Education Hub](#).

Music and audio analgesia

Management

1. The hospital Facilities Management Department should check all electric music players (any corded device that is to connect with WNHS electricity) for safety prior to use in WNHS sites. Women should be advised antenatally of this necessity.
2. A headphone is encouraged if the volume of the music impacts negatively on others. This allows the woman to control the volume herself.

Nitrous oxide and oxygen (N₂O + O₂) administration

Background, contraindications, side effects and additional information

For additional medication information, see nitrous oxide within medication guidelines such as [Therapeutic Guidelines \(eTG\) \(external website\)](#) or [Australian Medicines Handbook \(AMH\) \(external website\)](#).

Prolonged inhalation can inactivate vitamin B₁₂ and interfere with DNA synthesis. This can cause adverse haematological and neurological effects.¹⁸ Avoid exposures > 6 hours.¹⁸ Avoid use in patients who are vitamin B12 deficient.¹⁹

Key points

1. **Document:**
 - Prescribe on MR810.04 'Medication Administration for Labour and Birth.
 - Document use on:
 - MR810.04 'Medication Administration for Labour and Birth' and
 - MR270 'Partogram'
2. Careful explanation assists with successful use of self-administered nitrous oxide.
 - Only the patient should self-administer the nitrous oxide to prevent risk of loss of consciousness that can result from gas overdose.
 - Describe the importance of maintaining a seal around the mouthpiece and

instruct the woman to inhale and exhale through the mouthpiece.

- Begin breathing deeply at a normal rate at onset of contraction (or around 30 seconds before where possible). Deep, slow breaths can shorten the delayed lag-time.
 - Cease when the contraction pain eases. Advise the woman to remove the mouthpiece and breathe normally.
3. Inappropriate use may lead to over dosage.
- Signs and symptoms include passing through stages from light headedness, intoxication to unconsciousness. Other signs include bradycardia, respiratory depression, cardiovascular depression and severe hypotension.
 - If this occurs, discontinue nitrous oxide, and protect the woman's airway until she is recovered.
 - Following recovery, recommence the N₂O+O₂ but at a lower concentration

Reflexology

Reflexology should not be performed on women in labour unless verbal consent is obtained. It should only be performed by a person who has trained in an accredited course in reflexology.

Transcutaneous Electrical Nerve Stimulation (TENS)

Key points

1. Women should be encouraged to commence preparation about the use of TENS machine in the antenatal period. The Physiotherapy department at KEMH provides monthly patient education sessions on TENS. A patient information sheet: "The Use of TENS in Labour" is also available from the Physiotherapy department.
2. The TENS is contraindicated / should not be used:
 - if pacemaker in situ²⁰
 - when labouring in the bath or shower.²⁰
3. Avoid the use of TENS prior to 37 weeks gestation.²⁰
4. A patient with epilepsy using the TENS should never be left alone. A seizure could accidentally increase the rate/level of the impulse and risk skin damage.²¹

Consumer information also available from Australian Government: [healthdirect: TENS \(Transcutaneous electrical nerve stimulation\) \(external website\)](#).

Water for pain relief in labour

See WNHS Clinical Guideline: Obstetrics and Gynaecology: [Water for Pain Management during Labour and/or Birth](#) [procedure].

Pain management in palliative care

See WNHS Clinical Guidelines, Obstetrics and Gynaecology:

- [Palliative Care](#)
- [Palliative Care: Intrathecal Administration of Medications](#)
- [Palliative Care: Niki t34 Syringe Pump: Continuous Subcutaneous Infusion](#)

References

1. Australian and New Zealand College of Anaesthetists. Acute pain management: Scientific evidence: ANZCA; 2015. Available from: <https://www.anzca.edu.au/getattachment/38ed54b7-fd19-4891-9ece-40d2f03b24f9/Acute-Pain-Management-Scientific-Evidence-5th-edition#page=>
2. Health Practitioner Regulation National Law (WA) Act 2010. Version 01-f0-01, (2018).
3. Lindquist R, Tracy M, Snyder M, editors. Complementary and alternative therapies in nursing. 8th ed. New York: Springer Publishing Company; 2018.
4. Tabatabaeichehr M, Mortazavi H. The effectiveness of aromatherapy in the management of labor pain and anxiety: A systematic review. **Ethiop J Health Sci**. 2020;30(3):449-58.
5. UK Teratology Information Service. Essential oils. In: Best Use of Medicines in Pregnancy (BUMPS) [Internet]. 2019 [cited 2022 Dec 1]. Available from: <https://www.medicinesinpregnancy.org/Medicine--pregnancy/Essential-oils/>.
6. Colon C. A Slippery Topic: The Use of Essential Oils during Pregnancy. In: MotherToBaby [Internet]. 2016 [cited 2022 Dec 1]. Available from: <https://mothertobaby.org/baby-blog/slippy-topic-essential-oils-pregnancy/>.
7. Ching-Chu Liao, Shao-Huan Lan, Yea-Yin Yen, Yen-Ping Hsieh & Shou-Jen Lan (2021) Aromatherapy intervention on anxiety and pain during first stage labour in nulliparous women: a systematic review

- and meta-analysis, *Journal of Obstetrics and Gynaecology*, 41:1, 21-31, DOI: 10.1080/01443615.2019.1673707.
8. Karatopuk S, Yarıcı F. Determining the effect of inhalation and lavender essential oil massage therapy on the severity of perceived labor pain in primiparous women: A randomized controlled trial. *EXPLORE*. 2022 Aug 11.
 9. Makvandi S, Mirteimoori M, Najmabadi KM, Sadeghi R (2016) A Review of Randomized Clinical Trials on the Effect of Aromatherapy with Lavender on Labor Pain Relief. *Nurse Care Open Acces J* 1(3): 00014. DOI: 10.15406/ncoaj.2016.01.00014.
 10. Mirzaiinajmabadi K, Makvandi S, Mirteimoori M, Sadeghi R. An update on the effect of massage and inhalation aromatherapy with lavender on labor pain relief: A systematic review and meta-analysis. *Journal of Obstetrics, Gynecology and Cancer Research (JOGCR)*. 2018 Mar 10;3(1):29-37.
 11. Kheirkhah M, Vali Pour NS, Nisani L, Haghani H. Comparing the effects of aromatherapy with rose oils and warm foot bath on anxiety in the first stage of labor in nulliparous women. **Iran Red Crescent Med J**. 2014;16(9):e14455. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/25593713>
 12. Sites DS, Johnson NT, Miller JA, Torbush PH, Hardin JS, Knowles SS, Nance J, Fox TH, Tart RC. Controlled breathing with or without peppermint aromatherapy for postoperative nausea and/or vomiting symptom relief: a randomized controlled trial. *Journal of PeriAnesthesia Nursing*. 2014 Feb 1;29(1):12-9.
 13. Safajou F, Shahnazi M, Nazemiyeh H. The effect of lemon inhalation aromatherapy on nausea and vomiting of pregnancy: a double-blinded, randomized, controlled clinical trial. *Iranian Red Crescent Medical Journal*. 2014 Mar;16(3).
 14. Mirghafourvand, M., Charandabi, S.M.A., Hakimi, S., Khodaie, L., Galeshi, M., 2017. The effect of orange peel essential oil on postpartum depression and anxiety: a randomized controlled clinical trial. *Iran Red Crescent Med. J*. 19 (2). doi:10.5812/ircmj.30298.
 15. Burns E, Blamey C, Et al. An investigation into the use of aromatherapy in intrapartum midwifery practice. **Journal of Alternative and Complementary Medicine**. 2000;6(2):141-7.
 16. Beebe KR. Hypnotherapy for labor and birth. **Nurs Womens Health**. 2014;18(1):48-58. Available from: <http://onlinelibrary.wiley.com/doi/10.1111/1751-486X.12093/pdf>
 17. Lee N, Gao Y, Collins SL, Mårtensson LB, Randall W, Rowe TM, et al. Caesarean delivery rates and analgesia effectiveness following injections of sterile water for back pain in labour: A multicentre, randomised placebo controlled trial. **EClinicalMedicine**. 2020.
 18. Australian Medicines Handbook [Internet]. Nitrous oxide: AMH; 2022. Available from: <https://amhonline.amh.net.au/chapters/anaesthetics/general-anaesthetics/inhaled-anaesthetics/nitrous-oxide>
 19. Therapeutic Guidelines. Inhaled analgesics: Nitrous oxide: eTG Complete. 2020. Available from: <https://www.tg.org.au/>
 20. Johnson R, Taylor W, Smith S, Bayes S. Non-pharmacological pain relief: Chapter 34. Skills for midwifery practice. 4th edition-Australia and New Zealand ed. Chatswood, NSW: Elsevier Australia; 2019.
 21. Mainstone A. Transcutaneous electrical nerve stimulus (TENS). **British Journal of Midwifery**. 2004;12(9):578-81.

Related policies and legislation

Legislation- [Health Practitioner Regulation National Law \(WA\) Act 2010. Version 01-f0-01. \(2018\)](#)

NMHS [Complementary and Alternative Medicines Policy](#) (inpatient use of complementary and alternative medicines (CAM) when patients are admitted to NMHS sites)

NMHS [Occupational Safety and Health Policy](#)

Related WNHS policies, procedures and guidelines

Anaesthetics: [Neuraxial Analgesia \(epidural and intrathecal\)](#) (access via HealthPoint)









Pharmacy: [A-Z Adult \(Obstetrics and Gynaecology\) Medication Protocols](#): Morphine, Pethidine

Women's Health: Physiotherapy: [Physiotherapy Use of Dry Needling and Western Acupuncture](#)

Resources and related forms

ANZCA 2020 [Acute Pain Management](#) (5th ed.)

Nursing and Midwifery Board: [Code of Conduct 2018](#) (updated 2022)

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Version history

Version number	Date	Summary
1	Feb 2019	<p>First version.</p> <p>History: In February 2018 amalgamated 12 individual guidelines on pain management in labour, and application of heat dating from August 2001.</p> <p>Superseded:</p> <ol style="list-style-type: none"> 1. Heat: Local Application (date last amended Dec 2014) 2. Acupressure / shiatsu (dated Jan 2016) 3. Acupuncture (dated Jan 2016) 4. Aromatherapy (dated Jan 2016) 5. Heat or cold therapy (dated Jan 2016) 6. Hypnotherapy (dated Jan 2016) 7. Massage (dated Jan 2016) 8. Music and audio analgesia (dated Jan 2016) 9. Nitrous oxide (N2O+O2) administration (dated Jan 2016) 10. Reflexology (dated Jan 2016) 11. Transcutaneous Electrical Nerve Stimulation (TENS) (dated Jan 2016) 12. CMP Complementary Therapies (dated Jan 2016)
2	Dec 2022	<ul style="list-style-type: none"> • Content condensed: heat pack chapter reduced and links to SCGH/OPH guideline, added if ineffective epidural to contact anaesthetist; nitrous section links to online medication resources. • Labour section- <ul style="list-style-type: none"> ➤ Aromatherapy should be used with caution on women with a history of asthma ➤ Added section on intradermal sterile water injections

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