

**MATERNITY
GUIDELINE:**

**Intradermal Sterile Water Injections (SWI)
For the Relief of Back Pain in Labour**

SCOPE:

Core Midwives, Nurses and Lead Maternity Carers

AUTHOR:

Core Midwife

PURPOSE:

To inform and guide midwives and nurses on the use of intradermal water injections for the relief of back pain in labour. To be used as a reference for correct and appropriate administration of this form of non-pharmacological pain relief.

DEFINITIONS:

Intradermal sterile water injections:

Injections of 0.1ml sterile water into the dermal layer of the skin at 4 locations on a woman's lower back.

Dermal Layer:

"The layer of the skin just below the epidermis ... containing blood and lymphatic vessels, nerves and nerve endings, glands, and hair follicles".

GUIDELINE:

What the research says

Intradermal water injections to relieve back pain in labour is a well researched topic. Several high quality randomised controlled trials found them to significantly reduce back pain in labour when compared to the control.

Reduction in Visual Analogue Scale (VAS) scores (where 0 is no pain and 10 is the worst pain imaginable) continued for up to 3 hours post administration.

The most effective pain relief was achieved at 45-90 mins post administration. At 90 – 120 mins pain scores began to increase but were still significantly lower than pain scores given prior to the procedure.

The majority of women stated they would use this pain relief technique again in a subsequent birth despite the pain of administration. From this it can be inferred that the analgesic effects outweighed any discomfort felt during administration.

Advantages

- Analgesic effects are immediate (takes approx 30 seconds).
- They are clinically proven to provide significant pain relief.
- They have no effect on women's state of consciousness.
- They are non pharmacological so carry no risk of allergy or adverse effects.
- They can be repeated as desired.
- They do not affect mobility.
- They do not interfere with natural labour or active birthing.
- They are cheap and simple for midwives to administer.
- They can be used during homebirths.
- They have no adverse effects on babies.

Disadvantages

- A severe stinging/burning sensation is felt during administration that lasts for 20-30 secs. This feeling is thought to be essential to achieve an analgesic effect.
- As with any injections there is a small risk of site infection. It is essential to use aseptic techniques and observe the injection sites postnatally for signs of infection.

When they can be used

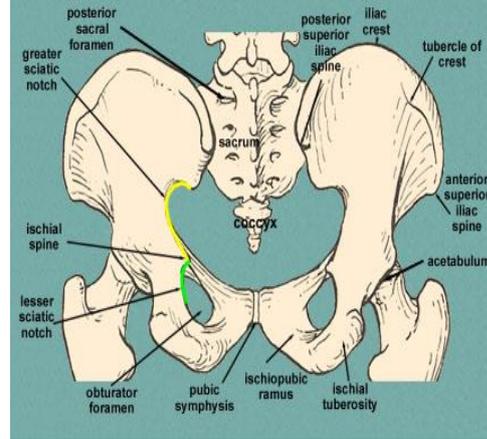
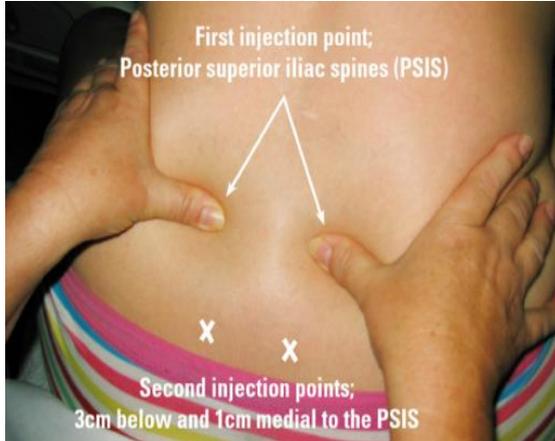
- For women with severe back pain in labour with a pain score of 7+.
- At home, in a primary care unit, in a secondary or tertiary hospital.

Equipment Required

- 4 x 1ml syringes with 4x 25G or smaller needles – insulin syringes and tuberculin syringes can be used.
- Sterile swabs.
- Fine point marker to mark the skin.
- 2 Midwives (or a nurse working at the maternity unit). This is preferable but not essential.

Technique

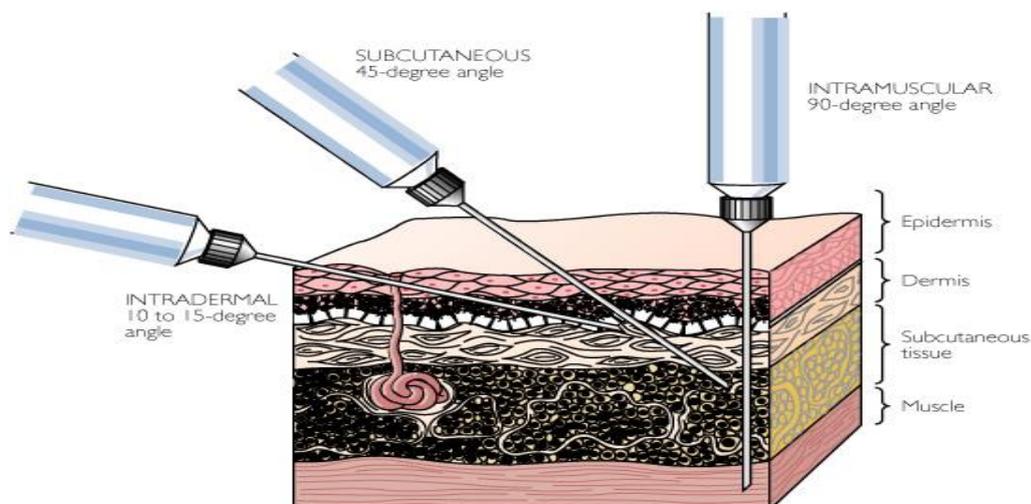
- Discuss the procedure with the woman (ideally this will have been done antenatally). Inform her about how the procedure works and part of this involves a burning/stinging sensation that usually lasts 20 - 30 seconds. As the sensation of the injections subside the severe back pain should also dissipate.
- Gain informed consent from the woman and make a plan with her whether the injections will be given during a contraction (speculated to reduce the pain from injections as the woman is distracted by the pain of the contraction) or between contractions (better for women who cannot stay still during contractions).
- Enlist the assistance of a colleague (LMC, core midwife or nurse) who will perform the injections simultaneously with you to speed up the procedure and therefore lessen the duration of discomfort.
- Injections are administered with the woman in a standing, kneeling or seated position, leaning over a bed or couch. Have her birth partner stand facing her holding her hands.
- Identify the areas to be injected and mark just above these points with a fine point marker.



- Swab the areas below these marks with alcohol wipes.
- Draw up 0.1ml sterile water into each syringe.
- Ask the birth partner to count backwards from 30 – 0.
- Both health professionals simultaneously inject the sterile water into the dermal skin layer at the upper injection points (see intradermal injection technique instructions).
- Repeat this procedure for the dermal skin layer below your second marks.
- Do not rub or massage the area as this can reduce the effectiveness of the injections.
- The injections can be repeated as per the woman's request.
- Observe the injection sites in the postpartum period for signs of infection
- Please complete the proforma. See Appendix 1

Intradermal Injection Technique

- Use a 25g needle at the largest.
- Ensure the bevel is facing up before you insert it into the skin.



- Insert the needle at a 10 – 15 degree angle to access the dermis.

- Inject the sterile water just below the skin, resistance should be felt and a blister (“bleb”) should form.



- Withdraw the needle and discard safely.

Ideas to cope with the pain of administration

- Several studies recommend the injections to be given during a contraction to distract from the pain of the injection, though this aspect of care has not been investigated or proven as best practise. Therefore it is recommended to discuss with the woman whether she would prefer it to be given during or between contractions. If she is finding it difficult to stay still during contractions it may be better to administer them between.
- Some women find it helpful to breathe entonox during the injections.
- Getting a support person to hold her hands and count aloud backwards from 0 to 30 during the injections is a technique also used. This allows the woman to focus on the voice of her support person and know that the burning sensation will soon stop and the pain relieving benefits will soon commence.

ASSOCIATED DOCUMENTS:

- Intradermal Sterile Water Injections proforma.

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[Appendix 1 - Intradermal Sterile Water Injection Proforma Form](#)

APPENDIX 1

Intradermal Sterile Water Injection Proforma

Patient Label

Date:

Spontaneous/IOL/augmented

Pain relief techniques already used

Pain score prior to administration of SWI (0 = no pain & 10 = the worst pain imaginable)										
0	1	2	3	4	5	6	7	8	9	10
VAS Score 30 mins after injections										
0	1	2	3	4	5	6	7	8	9	10

Were the injections repeated? Yes No

If they were repeated, how many times?

How long after the initial injections were they repeated?

Did the woman choose to use any further pain relief after the sterile water injections? If so, what?

