



including:

- how TENS machines work
- research for using a TENS for labour
- Contraindications & considerations
- TENS for labour "how to" instructions
- TENS for after-pains

www.samzieg.com

Table of Contents

If reading is not your thing, be sure to check out the links to YouTube tutorial videos by clicking this icon!



What is a TENS machine?

TENS stands for Transcutaneous Electrical Nerve Stimulation. It is a battery operated machine that sends mild electrical impulses through sticky pads (electrodes) on your skin.

It is often used as a nonmedical form of pain relief in many scenarios. The pulses feel like a tingling sensation and the intensity of the pulses can be increased or decreased. There are different types of TENS. Some are specific to labour which have a "boost" button to use during a surge/ contraction.

Elle TENS+ & Obi TENS

are both TENS machines designed specifically for labour (with a boost button) and available for hire from www.samzieg.com

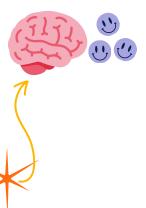
How does it work?

two theories... Pain Gate Theory

According to this theory, only a certain amount of painful stimuli can be let into the brain at one time. Therefore, if you flood the brain with stimuli that the brain perceives to be painful (but isn't) then the "gate" is shut for more painful stimuli to be sent to the brain (from contractions).

Diffuse Noxious Inhibitory Control

This theory is that you are sending a painful stimuli to the brain which then triggers the brain to release endorphins. These endorphins are your body's natural morphine and act as pain relief.





because of how TENS machines work, putting them on early in labour is thought to be most beneficial.

> give it time to: shut the gate & build the endorphins

Contraindications & Considerations can anyone use a TENS?

The great thing about TENS machines are that almost anyone can use it and there are very few side effects

If you have sensitive skin, you may get a reaction to the electrode pads so please test these out by doing a "test patch" on the inside of your forearm or ask me if you have questions.

how to do a "test patch"

- wash and dry your forearm
- place one of the electrodes on the inside of your forearm (where the skin is softest)
 - do not connect the electrode to the machine
- leave the electrode in place for a few minutes before peeling up a corner and checking the skin for irritation
 - if you have any itching, burning or discomfort remove the electrode immediately and do not continue the test
- if no irritation, continue to leave the electrode in place for an hour (removing if any discomfort or itchiness occurs)
- if there is any flaking, redness, itchiness etc then treat with first aid. Further use of the electrodes is not recommended

Contraindications & Considerations contraindications

DO NOT use this TENS if you have:

- a pacemaker
- a heart condition or a recent heart attack
- tuberculosis, malignant tumours
- very high or low blood pressure
- epilepsy
- metal implants or plates
- DO NOT:
 - place electrodes on or near eyes, in mouth, on neck, on head, over heart or on broken, inflamed, infected or numb skin
 - do not place electrodes on abdomen during pregnancy
 - use TENS before 37 weeks (unless under medical supervision)

If you are worried a TENS may not be suitable, please contact me or talk to another trusted health professional.

always remember

DO NOT use whilst near water DO NOT use without reading the instructions first DO NOT place near excessive heat or use near flammable gas

What does the research say? about their use in labour

efficacy and satisfaction

Studies, including the Cochrane Review, indicate that TENS can reduce labour pain and increase maternal satisfaction. Many women who have used TENS during labour express a willingness to use it again in future pregnancies. TENS has also been found to delay or reduce the need for other pain relief medications.

safety considerations

Research conducted thus far has not reported any significant side effects of TENS on both mothers and babies during labour. However, it is important to note that further investigation is needed to fully understand if there are any risks. Please see the contraindications & considerations page for known risks to using a TENS.

What does the research say? about their use in labour

the broad conclusion

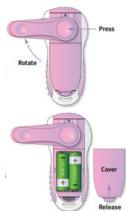
In summary, while more high-quality research is required, the available evidence suggests that TENS can be a valuable option for managing labour pain. TENS has shown effectiveness in reducing pain, increasing patient satisfaction, and potentially minimizing the need for additional pain relief interventions

Set Up Your Elle TENS+

l recommend you set up your TENS asap - just in case you don't get another chance before labour starts!

insert batteries

- press and rotate the belt clip
- open the battery compartment
- and insert 2 x AA batteries provided
 - (make sure the +ve and -ve ends line up correctly)
- put the cover back on the battery compartment and rotate the clip back in place



connect leadwires & electrodes

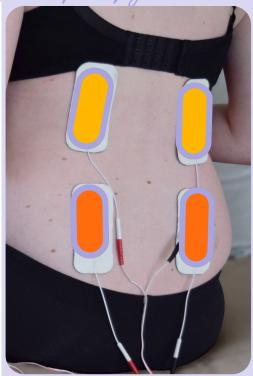
- insert each plug into the sockets at the top of the machine
- keep electrodes attached to their plastic backing and plug the pins of the leadwires into the sockets of the electrodes

you can ignore the red and black pins - it makes no difference which each are attached to.

How to use your TENS the labour pain relief configuration

applying electrodes

- Peel the pads from the plastic backing
- Place two pads from the same channel (same plug in the machine) on either side of your spine (about 4cm away) with the top of the pads at about bra strap level
- Place the other two pads (from the other channel) on either side of your spine at about the level of your panty line



turn it up!

- turn your TENS on
- turn up the intensity to a strong but comfortable level
- as you get used to the sensation, continue to turn up the intensity throughout labour as you need more detailed instructions on the next pages.

turning on BIRTH MODE

- Make sure the boost button (on the top of the machine) is not pressed in
- Turn the machine on by pressing the ON/OFF button. "BIRTH" should be flashing in the top left corner of the screen.
- Press mode to select "BIRTH" mode (it should automatically select this if you do nothing)
- If the machine has "PAIN" or "PELVIC" displayed, use the Opti-Max key to cycle through until "BIRTH" is selected

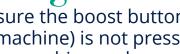
NOTE: your machine will always start up in the mode you were in when it was turned off.

TOP TIPS!

- put your TENS machine on as early as possible; in labour. It needs time to work
- keep the plastic electrode backing so you can stick your electrodes back to it and re-use them if you need
- if your electrodes have lost their stick, dip your fingers in water and wipe them over the gel (when TENS is off)









How to use the Elle TENS+

Adjusting the intensity

- Press the CH1+ key. Each time this is pressed, a small "half-moon" will appear on the screen and the intensity will increase
- As you slowly increase the intensity, you will feel the pulsating sensation. Press CH1- to decrease the intensity
- Repeat steps 1 and 2 with the CH2+ and CH2- keys

Burst Mode 1

Use this mode between contractions This is the first mode you use. It feels like pulsing, tingling sensation.

Boost 1

Use this mode during contractions. When you feel a contraction starting, push the BOOST button once (and release it). It is the big button on the top right of the machine.

It will feel like a continuous sensation and extra intensity.

Press the button again to switch back to BURST once the contraction has passed.

Elle TENS+ extra features

the MODE button

Mode 1 has been described above.

Press the MODE button to swap to mode 2. The display will change to have a big 2 in the centre.

Generally, mode 1 is intended for early labour and mode 2 is intended for advanced labour, however you can switch between the modes depending on your preference.

Opti-max

Pressing the OPTI-MAX+ or - will increase of decrease the opti-max sensation.

The unit always starts in 150us - there are 50, 100, 150, 200 & 250. You can change this intensity level depending on your preference.

NOTE: most women choose not to use this function unless the stimulation is uncomfortable with the default setting

Contraction Timer

• When you press the BOOST button, it

- When you press the BOOST button, it automatically triggers the contraction timer (CT)
- Shown at the bottom right of the display screen
- shows your contraction duration in seconds
- When the BOOST button is released, the machine swaps to trigger the between contraction timer (BCT)
- shown at the bottom left of the display screen
- shows your time between contractions in seconds

recalling contraction history

To recall your last 5 CTs and BCTs:

- press CH1- and CH2- simultaneously
- the last recorded BCT & CT are shown as -1 on the display
- use the Opti-Max- key to scroll back through previous sets of times

You can still use the BOOST button while in this function as normal

To avoid losing the contraction history, DO NOT switch the machine off.

Using a TENS for relief from After Birth Pains

what does the research say? about their use while breastfeeding There is very limited research into the use of TENS

There is very limited research into the use of TENS machines for pain relief for after birth pains (uterus contractions while breastfeeding). The minimal research that exists, suggests that it is effective at decreasing pain.

I did not find any research that listed any adverse affects, other than pain from turning the TENS too high.

electrode placement

Either use the same electrode placement as when in labour (page 10)

Alternatively, you can use 1 channel and place 2 electrodes over your lower abdomen (over your uterus). Unplug the other channel.



Using a TENS for relief from After Birth Pains

turning it on in PAIN mode

• Turn the machine on by pressing the ON/OFF button. If you haven't changed it before, "BIRTH" should be flashing in the top left corner of the screen.



- Use the Opti-Max key to cycle through the options until PAIN mode is flashing
- Use the Mode button to confirm the selection
- Press Mode again to cycle through the next set of options, stopping at "CONSTANT"
- Use the Opti-Max button the change the pulse width (bottom left corner) to 80µs

NOTE: your machine will always start up in the mode you were in when it was turned off.





Using a TENS for relief from **After Birth Pains**

start the stimulation

It is thought the best time to use the TENS is when the after birth pains are thee most intense. For many women, this is during breastfeeding.

- gradually turn up the intensity of the stimulation using the CH1+ and/ or CH2+ button (depending if you are using both or a single channel electrode placement)
- research suggest high intensity to be more beneficial than lower, so continue to turn up the intensity until it is a strong, but tolerable sensation. If your muscles twitch or spasm, use the CH1- button to decrease the intensity.
- leave the TENS in place throughout the breastfeed, then turn it off using the power button
- if your skin is not sensitive to the electrodes, you can keep them in place and unplug the leads until the next use. Otherwise, peel them off and place them on the plastic backing until the next use

17





one last thing ...

I hope you have found this TENS guide useful! Please get in touch if you still have questions or concerns. I am a doula and a physiotherapist with experience with TENS machines and may be able to answer any questions you have.

Sending you all the oxytocin and positive birthing vibes!!

Sam xx



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