



Getting lactation started without the benefit of a recent pregnancy is difficult, in that it requires your actively stimulating and "expressing" your breasts for ten to fifteen minutes each, no sooner than every 3-4 hours, throughout the 24-hour day. This expressing can be either suckling by a partner's mouth (most effective of all methods), manual expression with your or your partner's hands (second most effective), or pumping with a breast pump (least effective of the three methods). If your work schedule keeps you from finding the time to express your breasts during the day by any of these techniques, at the proper time, your breasts will be slower in responding and it will require a longer time to lactate.

A fourth method of breast expression is the use of a TENS Unit, which stands for Transcutaneous Electrical Nerve Stimulation (which basically means the unit stimulates your breast and nipple nerves through the skin of your breasts). It is a medical device that produces a very low electrical micro-current that flows from one electrode (pad) of each channel on the TENS unit to the other electrode of the same channel. Some TENS Units have only two electrodes (single channel) while others may have four electrodes (two pairs – two channels) or three or four channels. At least two channels would be a better choice because it could be applied to both breasts and used on both breasts simultaneously. These electrodes are placed a small distance apart on your breast areola, on opposite sides of each nipple. The TENS unit relies on the surface of your skin as the conductor of that electrical current, to complete a tiny circuit. You often cannot feel that electrical current... and can only feel your nerves reacting to it.

The original purpose of using the TENS Unit is to stimulate the nerves and muscles in your body to "hide" pain such as lower back pain, etc. In this case, it is used to stimulate the nerves of your breast... mostly nerves in your nipple area, which promote the release of prolactin by your Pituitary Gland (in your brain). That induces growth and development of acini (milk-producing) tissues in your breasts and leads to lactation.

Everyone should be concerned about the effects that any electrical device has on their heart. If you are wearing a pacemaker, you should not use a TENS Unit without discussing it with your doctor first. The following is what Dr. Jim Bowman says about the safe use of a TENS Unit on your breasts:

"The amperage of the current is what is critical in triggering heart arrhythmias. TENS units have an extremely

small micro amperage current and it would be very unlikely for one to trigger an arrhythmia. Some of them can

run for a week on a watch battery. TENS units generate a high frequency alternating waveform. It tends to be very

non-penetrating, running superficially in the skin and it disperses in the tissues rapidly. It is quite effective in

triggering nerve endings. Depolarizing the heart would not be very likely with this high frequency. Defibrillators use either a direct current or a low frequency alternating sine wave current. They are of course, very effective at depolarizing the heart. If you have an implanted pacemaker or defibrillator do not use a TENS unit in this fashion. Each channel of a TENS unit connects to two pads. The current travels between these pads. It would be best to use 2 pads (one channel) on each breast rather than having one pad on each breast with the current traveling through the chest between the breasts. Using two channels should be very safe. " (personal communication with Dr. Bowman) To use the TENS unit when you are at work or shopping, the idea is for the pads to be attached to your

breasts before you get dressed. They can be used inside your bra (if you wear one) or simply worn under your outer clothing. The control unit can slip into your bra between your breasts, hang from a cord around your neck, clip to your belt or slip into your pocket. It makes no vibrations or noise, and can be running while you are working at your desk, in a board meeting, or having lunch with your friends. You merely turn it on when you want it to function and turn it off when you are finished with it. The intent of using this unit is not to replace your partner's oral expression or your manual expression of

your breasts, or your pumping, but to substitute in their place when you are not able to take time away from work to suckle, express or pump. More than that, however, it can be used in between the scheduled suckling, expressing or pumping sessions, for about ten minutes every two hours. When you place the TENS Unit on your breasts, use the two wires from one channel of the TENS unit on one breast. The electrodes (pads) will be marked in some way, indicating that one electrode is a "+" electrode and the other is a "-" electrode. It is OK if the pads are not marked. Just do not intermix the

wires from two different channels ... be certain that both wires from each channel go to a single breast. Place the "+" and the "-" electrodes of the second channel on your other breast. Examine the image below of a lovely client that offered her image as a demonstration photo. Notice there are two channels, each channel having a "+" pad and a "-" pad.



The pads on the ends of each wire should be placed one on each side of each nipple, about one inch from your nipple. Looking in the mirror, the four pads and your two nipples should all be lined up in a single (+ Pad) ___ (L. nipple) ___(- Pad) ___ Cleavage ___ (- Pad) ___ (R. nipple) ___(+ Pad). row: The image above shows what this is like.

Your TENS unit may have several settings that you can adjust. Some suggestions might be:

- 1. Wave Form: Choose the one that indicates it is for massaging.
- 2. Amplitude: This basically means the volume or the current. Adjust it to a low setting. It should give you a pleasant "tingling" in your nipples or areolae.
- 3. Pulse Width: This basically means how long each pulse lasts. Considering the 'pulse' of a baby's suction is possibly half a second, I would try the longest pulse, or 250 us.
- 4. Frequency: This should be the same as a baby that is sucking. I would set it at about 70.

There are two different uses of the TENS unit:

- 1. Turn on the TENS Unit for ten to fifteen minutes every two hours. Any more time than that will not produce any more prolactin and prove to be ineffective. OR... 2. You do need to continue your schedule for the oral or manual expressing or pumping of your
- breasts whenever you can. But when you are not able to suckle, manually express, or pump... when you are where you cannot do your regular session, you can use the TENS unit for the full time you would normally suckle, express, or pump. Once you start producing milk, you usually cannot use the TENS unit to replace your regular sessions as

produced, you can use the TENS to stimulate your breasts if you want to. However, remember that if your milk is not expressed from your breasts, your body assumes that you do not need the milk and your breasts start to become "weaned"... you will actually work backwards and lose what you have built up. If you do use a TENS Unit, please consider sharing your knowledge of your progress. Your experience will be very helpful for others that are waiting to hear about others' results.

it will make your milk run and wet your blouse. If you are where you can catch your milk that is

If you are interested in using a TENS, there are a couple of units listed below that seem to fulfill the needs of other 'clients' who are seeking to stimulate lactation. Normally the smaller it is the less obvious

it is, and less noticeable. If you click on one that is listed on this website, it will link you directly to Amazon.com, and you can read more about it or browse and look at their other many selections. If you purchase it (or anything else) from Amazon while you are there, the price, quick delivery, and warrantee that Amazon.com is famous for will still be with you, but Amazon will actually award BreastNotes.com a couple percent for a "finder's fee" to help support the website, and you will cause Amazon.com to support better breast health for women worldwide. Do not hesitate to contact me if you have any questions.

Ken Ken L. Smith, Breast Health Facilitator for the ACS

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Click on the image at the right to read more about this item.

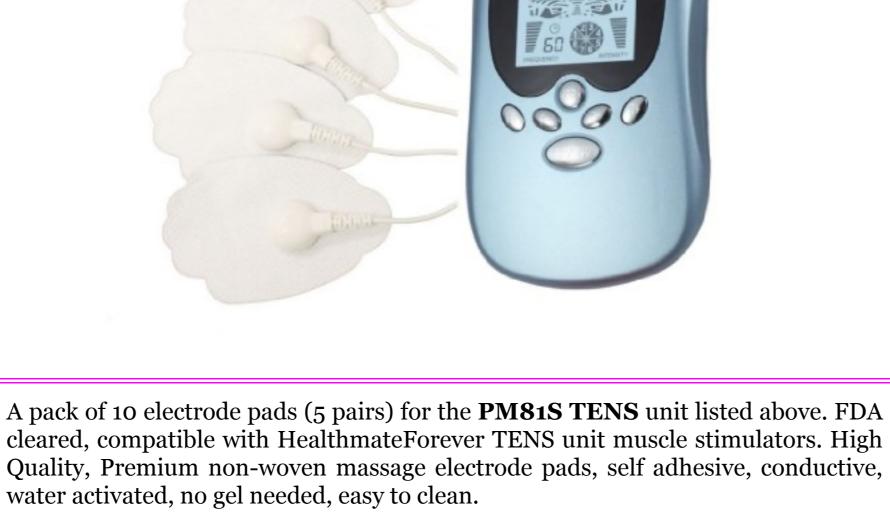
about the item. You can at that time search for other units, to compare them yourself, to find what will suit your needs. When you link to AMAZON, you can purchase the following items or any other item they sell, at Amazon's price and it will be handled and shipped entirely by AMAZON. FDA cleared, HealthmateForever PM81S TENS unit with 8 modes, 2 channels output and 4 pads. This palm-sized, 12 oz Micro Massager is a highly effective treatment for pain and weight reduction, and easily fits a pocket or into a bra.

times. If you want to click on the small picture/link on the right, you will be linked over to AMAZON where you can read all

I am often asked if I can recommend a particular TENS unit. These are a couple of units that are priced well, do an

adequate job of stimulating breasts, and can also be used for stimulating muscles and nerves all over the body at other





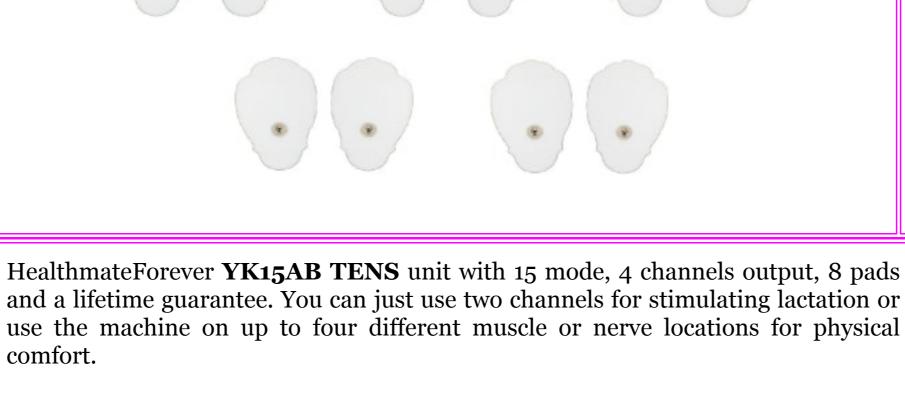


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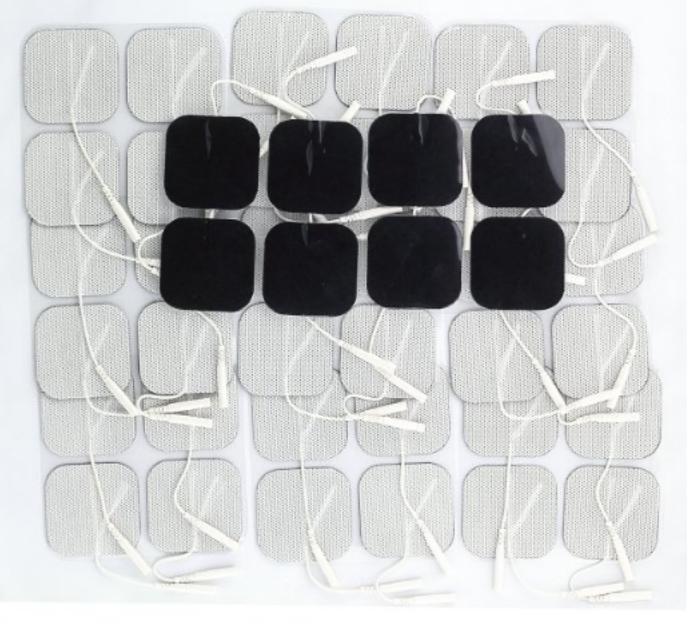


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A pack of 44 electrode pads for the YK15AB TENS unit listed above





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