

Clinician FAQs

Do I need a certification in NMES to perform with my patients?

The only certifications that ASHA recognizes are board certifications/specialties and the Certificate of Clinical Competence (CCCs). A certificate from an ASHA CEU course is simply proof of attendance. The focus of our course is on establishing competency in the technique of NMES which is consistent with the Principle of Ethics I, Rule A which insists that clinicians provide all services “competently”. Principle of Ethics II, Rule A provides specific guidelines by stating that an individual’s level of education, training, and experience must be considered in determining the scope of their competence.

For additional information and clarification, please review the following references:

- [ASHA Scope of Practice](#)
- [All Credentials Are Not Created Equal: ASHA Leader Article](#)

Can I use NMES with a patient with a pacemaker?

Yes, but it is recommended that you go through the [pacemaker interference protocol](#). This includes discussion with and approval by patient’s physician. However, never use NMES with a defibrillator.

Can I use NMES with a cancer patient?

Yes, there is no scientific evidence for any risk when using NMES on a cancer patient. Indeed, there is evidence that electrical stimulation can help shrink tumors and enhance radiation therapy. [Click here to review the abstracts.](#)

Is more amplitude better?

Not necessarily, remember the goal is to achieve a contraction at the lowest level possible with patient comfort kept paramount. The patient must be able to swallow comfortably with the level of stimulation and setting the amplitude too high can make it more difficult to do that.

How long is each treatment session?

The average treatment time for NMES is 30 minutes. This may need to be reduced based on patient fatigue. Remember that you can always capitalize on the 12 second rest time to work on any non-swallowing tasks such as oral motor exercises, speech drills, language or cognitive tasks.

Is NMES painful?

No, the skilled use of NMES dictates that the parameters are modified and manipulated in order to maintain patient comfort while still achieving the desired muscle contraction. True NMES should never burn, sting, grab or be uncomfortable in any way, shape or form.

Are NMES and VitalStim the same thing?

No, although both may be used to provide electrical impulses through surface electrodes, NMES is fundamentally different than the VitalStim protocol. The standards for NMES have been well established in the literature with a very specific parameter range that is then modified and manipulated as needed. [To see a standard NMES protocol click here.](#)

How do I know the therapy is working?

Good practice dictates that we assess our patient's progress on a regular basis regardless of what intervention is being used. Medicare guidelines require an objective standardized measure and requirements for frequency vary per setting. In clinical practice, we presume the therapy is working when you can objectively document progress such as diet upgrade, less evidence of aspiration, increased ease with eating, decreased time to complete a meal etc.

What is the most common treatment parameter I need to change?

Pulse Duration. Remember to decrease the pulse duration when the patient cannot tolerate enough amplitude to achieve a contraction and increase it when they are at max amplitude and comfortable but have not achieved a contraction.

Are there any contraindications?

The use of NMES on a patient with a defibrillator is contraindicated. There are a few cautions to consider:

- **Patient's ability to respond to painful stimuli** – Although we can set the parameters very low for infants and other patients unable to verbalize and likely avoid any discomfort you should only proceed if you have some reliable indication of pain such as a grimace, withdrawal response, watery eyes, refusal etc.
- **Pacemaker** ([see interference protocol](#))
- **Radiation fibrosis** – NMES alone will have little effect on tissue that is fibrotic, but if combined with manual therapy may have a very positive outcome.
- **Seizure disorders** – although there is no evidence that NMES will contribute to seizures it is recommended that you double check with the neurologist.
- **Post-surgical changes or implants** – Any metal implants located in proximity to electrode placement should not cause adverse effects however the patient may experience some sensation in the area. If so, the patient will decide to continue or terminate treatment. Any patient with any other implanted electronic devices such as cochlear implants, vagal nerve stimulation, deep brain stimulation, etc. may not be a candidate and the implanting surgeon should be contacted to discuss possible interference issues. If there is extensive surgical reconstruction and implants to replace structures you should consider what is being stimulated and why.

Why should I know how to change parameters?

You should be skilled in the use of NMES because it is a complex and powerful modality. When NMES is utilized correctly it can facilitate better outcomes in a shorter period of time than traditional exercise alone. When NMES is not used correctly the outcomes will not be optimal, could potentially be detrimental, and the treatment may be very uncomfortable for the patient. An excellent clinician will desire to know why and how something works, not just blindly follow a cookie cutter protocol.