PEMF vs TENS— what's the difference?

If you've been exploring drug-free ways to manage pain, you've likely come across two similar-sounding options: TENS and PEMF. Both are types of "**electrotherapies**" — *treatments that use electrical or magnetic energy to help the body* — but they work in quite different ways. Let's walk through what sets them apart, in plain terms.

> **What's "electrotherapy"?** *An umbrella term for treatments that use gentle electrical or magnetic energy to ease pain or support healing — rather than medication or surgery.*

What is TENS?

TENS stands for **transcutaneous electrical nerve stimulation**. That's a real mouthful — but "**transcutaneous**" simply means "**through the skin**." So, a TENS machine sends mild electrical currents through the surface of your skin.

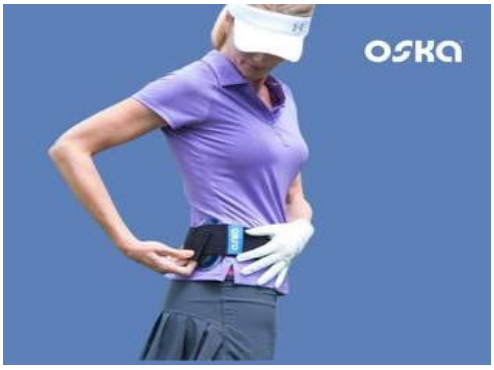
In practice, small sticky pads called electrodes are placed on the sore area, and the machine sends gentle pulses of electric current through them. The idea is that these pulses stimulate your nerves and encourage your body to release **endorphins** — your own natural painkillers. In doing so, TENS helps block, or "drown out," the pain signals travelling to your brain, giving you some relief.

> **Endorphins, simply put:** *Your body's home-made "feel-good" painkillers — chemicals it releases naturally to dull pain and lift your mood.*

What is PEMF?

PEMF stands for pulsed electromagnetic field therapy. Rather than applying electric currents to the skin, it delivers brief bursts of low-frequency, low-intensity electromagnetic energy. This energy closely resembles the natural energy already present in your cells, which is why the body responds to it so well.

Rather than merely masking pain, PEMF supports your body's natural healing. It encourages cells to regenerate (***repair and renew themselves***), improves circulation, and helps repair damaged tissue. Because it also boosts blood flow to the area, it can speed nerve repair and help flush away built-up toxins—the kind that can cause pain from nerve damage (*neuropathy*), wear-and-tear conditions like osteoarthritis, or general cellular damage.



> **A couple of terms explained:** *Neuropathy means pain or odd sensations caused by damaged nerves. Osteoarthritis is the common "wear-and-tear" form of arthritis, where the cushioning in joints gradually wears down.*

The main differences at a glance

- **How they're applied.** TENS uses electrical pulses placed directly on the skin. PEMF uses magnetic fields that **can even work through your clothing**.
- **What kind of healing they offer.** TENS gives short-term relief by triggering your body's natural pain-blocking pathways. PEMF goes deeper, working on the underlying cause of the pain.
- **How quickly they work.** TENS usually works faster to ease pain in the moment. PEMF can be slower because it addresses the root cause, but it has the potential for **greater, longer-lasting benefits.**
- **Portability**. TENS devices require pads attached directly to your skin. Some PEMF devices, such as the Oska Pulse, can be worn discreetly under or over your clothes.
- **Focused vs. whole-body.** TENS tends to target a specific spot, while PEMF takes a more holistic, whole-body approach.

And the reassuring part

Both TENS and PEMF are safe to use. TENS has very few side effects and suits most people well. PEMF has no reported side effects and is designed to address the root cause of pain by helping damaged cells regenerate — rather than simply blocking pain signals along the nerves.

In short: TENS is wonderful for quick, in-the-moment relief, while PEMF gently works on the deeper cause. Many people find there's a place for each.

This document is for informational purposes only and is not a substitute for professional medical advice. Please do not change or stop any current medication without first consulting your doctor.

With warm regards,
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