



ALLEVIA  
Health

Authorized Alpha-Stim® Sales & Service  
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## TENS vs. MET COMPARISON

### Typical TENS

### MET (e.g., Alpha-Stim®)

#### Origins

Originally used in 1800s through ~ 1920s. Modern TENS was “rediscovered” in 1967 as a presurgical screening method for dorsal column stimulator (DCS) implants when it was found that the transcutaneous application worked at least as well and often better than the implants.

Used for healing non-union fractures in Japan in 1940s, used in basic science research in U.S. since 1950. Alpha-Stim® was the first commercial home care MET device, introduced by Electromedical Products International, Inc. in 1982.

#### Specifications

2 - 1000's Hz  
Current of approximately 60-100 mA  
Pulse width of 250-400  $\mu$ S

0.5 Hz typically (up to 100 Hz)  
Current of 10-600 microamperes ( $\mu$ A)  
Pulse width of 500,000 +/-  $\mu$ S

#### Perception

Adjusted to “maximum comfortable tolerance”

Subsensory or barely perceivable when treating below the head.

#### Indications

Temporary symptomatic relief of acute, chronic, and post-operative pain.

Long term relief of pain and acceleration of the healing process. Alpha-Stim® also has cranial electrotherapy stimulation capability to control anxiety, insomnia, and depression.

#### How Supplied

Home care only. Clinical treatments are not practical due to lack of residual effect.

Clinical use by health care professionals and home care.

#### Cumulative Benefits

No residual effect: like eyeglasses, must be worn constantly. Like drugs, tolerance is a problem. Electrodes become expensive over time.

Cumulative effects. No tolerance. Chronic conditions usually respond best to brief 1-20 minute treatments on alternate days. Uses electrodes or probes. Less usage overall and use of probes instead of electrodes makes microcurrent much more cost effective than TENS over time.

#### Indications

May not be used on head or neck. Systemic, abdominal, back, lower and upper extremities only.

Includes head and neck pain in addition to systemic, abdominal, back, lower and upper extremities.

#### Contraindications

Transcranially, pregnancy, pacemakers, over or through heart, near carotid sinus area, metastatic carcinoma, metallic implants.

Demand type pacemakers, pregnancy, carotid sinus area, eyes.