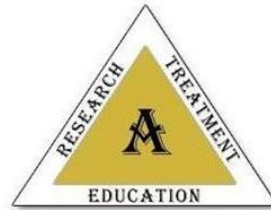


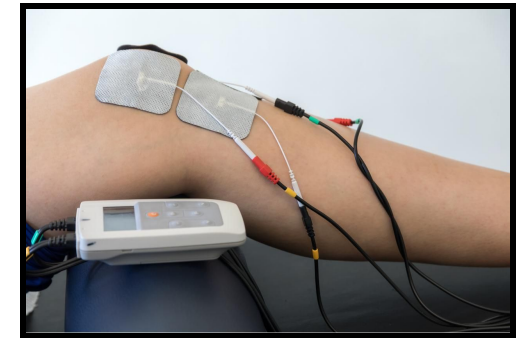
## What is a TENS Unit?

A transcutaneous electrical nerve stimulation (TENS) unit is a battery operated device used to treat pain. This is done through small electrical impulses delivered via electrodes placed directly onto the skin around or near the pain site.



## TENS Unit

Treatment for Pain



1893 N. Clyde Morris Blvd., Suite 110  
Daytona Beach, FL, 32117

Phone: (386) 676-0307  
Fax: (386) 677-7842

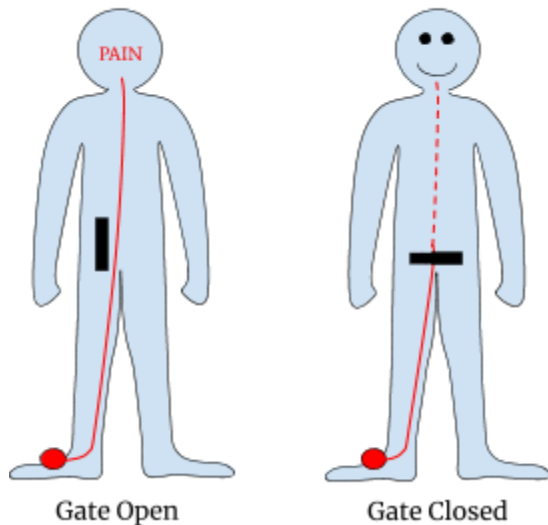
**Dr. Yong Tsai, MD**  
**Aimee Chen-Wiener, APRN**

## High Frequency TENS

The effects of high frequency, or “conventional”, TENS is explained by the Gate Control Theory. This theory states that when the body is flooded with neurological sensation, a capacity will be reached and additional sensory input from pain will be disrupted or even blocked. With the TENS Unit, large nerve fibers are selectively excited to **reduce pain transmission from nearby smaller fibers.**

This is achieved at a frequency of  
90-130 Hz

### Gate Control Theory



## How does a TENS Unit work?

Pain relief can be achieved in  
← two different ways →

### When Using:

It is possible to use both types of TENS to achieve both effects with a “burst” mode which switches between both frequencies.

TENS treatment recommendation  
is about

**20-30 min per session**  
at a maximum of  
**3-4 sessions per day**  
to reduce habituation  
(lessening of TENS effectiveness)

**Ask Dr. Tsai or Aimee today to see if  
TENS is right for you**

## Low Frequency TENS

Another method of pain relief can be achieved through low pulse rate, or “acupuncture”, TENS. With low frequency stimulation, the central nervous system **produces endorphins**, morphine-like substances that modulate or block pain signal transmissions. This analgesic effect takes longer to achieve, but has a longer lasting pain relief than high frequency TENS.

This is achieved at a frequency of  
2-5 Hz

### Release of Endorphins

