

ELECTRICAL STIMULATION

What is it? Electrical stimulation, or E-stim, uses an electrical pulse to stimulate muscle fibers. This stimulation can be very small, feeling like a tingling or pins-and-needles affect, or large enough to stimulate the entire muscle to contract. It is used both to reduce pain and to exercise muscles when the pet cannot use a limb or limbs because of surgery, fracture, or nerve or spinal cord damage. E-stim helps the muscles to stay strong and reduces muscle spasms and cramping. It reduces pain by activating the body's own pain control systems.

Sticky pads are placed onto trigger points for the muscle we want to stimulate. (The hair will need to be shaved at these spots.) A signal is sent to the electrode in the pad, causing the muscle to quiver a little, or to contract and then relax again. The sensation is odd but not painful. E-stim can be provided here at Best Friends or with a portable unit that can be used at home or in the patient's cage or run.

What types of cases may benefit from E-stim? E-stim is often used for muscle strengthening and to prevent muscle atrophy after injury to a bone or the spinal cord. It accelerates healing after bone fractures and reduces pain from muscle spasms and both orthopedic and neurological injuries.

When would we not want to use E-stim? E-stim should not be used on anesthetized areas of skin, over tumors or a site of infection, or if there is acute inflammation present.

How long does it take? Treatments are usually shorter but more frequent for acute conditions, for example five sessions of 5 minutes each done every day for five days after a bone fracture is repaired. Chronic conditions are usually treated with higher intensity, longer duration, such as 15-20 minutes, and at less frequent intervals. A dog with wobbler's syndrome, for example, wherein the spinal cord is being pinched as it goes through the neck vertebrae, may receive 12-18 sessions lasting 15-20 minutes each at 2-3 times per week.