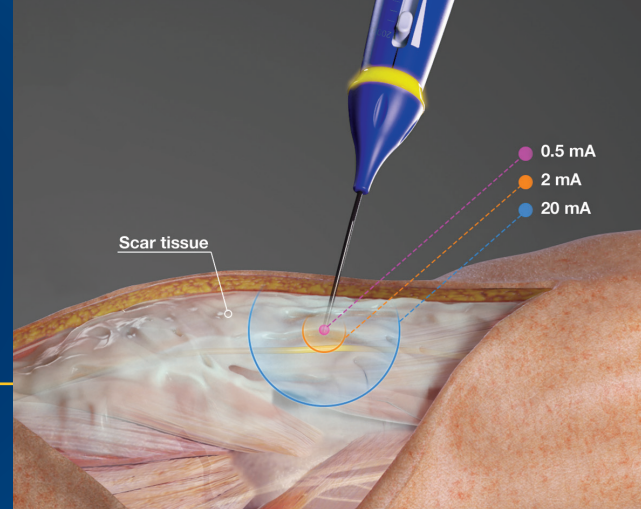




When Nerves Matter™ - Checkpoint

Expect more. Do more.



Checkpoint® Nerve Stimulator vs. Direct Current (DC) Nerve Stimulators

Description	Direct Current Stimulators	Checkpoint Nerve Stimulator
		
Safe for repeated, prolonged contact with nerve tissue intraoperatively <i>without diminished motor response</i> <ul style="list-style-type: none"> Checkpoint's biphasic waveform with balanced charge delivery and net zero current allows for repeated and continuous nerve stimulation 	No ^{1,2,3,4}	✓ ^{5,6}
Added reliability and safety <ul style="list-style-type: none"> Microprocessor-controlled self-test with every pulse 	No	✓ ⁶
Map location of motor nerves through dense tissue <ul style="list-style-type: none"> High Amplitude setting (0.5, 2, and 20mA) and adjustable Pulse Duration control permits surgeon to safely stimulate obscured nerves 	No	✓ ⁶
Visible, sustained muscle contraction <ul style="list-style-type: none"> 16Hz pulsed stimulation produces a tetanic contraction 	No	✓ ⁶

¹ Instructions for Use, Vari-Stim® III Nerve Locator, Medtronic Xomed, Inc. Rev. M726750B402 B

² Hughes, G. B. (1980). A comparative study of neuropathologic changes following pulsed and direct current stimulation of the mouse sciatic nerve. *American Journal of Otolaryngology*, 1(5), 378–384.

³ Hughes, G. B. (1981). Myelin and Axon Degeneration following Direct Current Peripheral Nerve Stimulation: A Prospective Controlled Experimental Study. *Otolaryngology–Head and Neck Surgery*, 89(5), 767–775.

⁴ Chase, S. G. (1984). Neuropathologic Changes Following Direct-Current Stimulation of the Rat Sciatic Nerve. *Otolaryngology–Head and Neck Surgery*, 92(6), 615–617.

⁵ Jo, S. (2019). Comparing electrical stimulation and tacrolimus (FK506) to enhance treating nerve injuries. *Muscle & Nerve*, 60(5), 629–636.

⁶ Instructions for Use, Checkpoint® Nerve Stimulator/Locator, Checkpoint Surgical, Inc. Rev. 4260-MAN-000-W

Product Checkpoint Nerve Stimulator #9094 | Sold in a box of 4 | RX Only

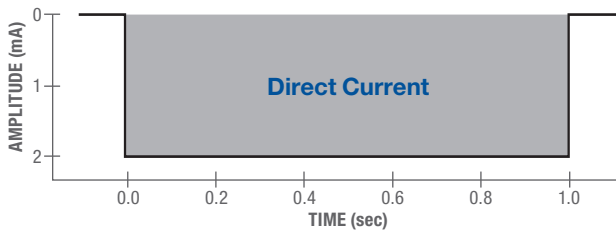
The Checkpoint Stimulator is a single-use, sterile device intended to provide electrical stimulation of exposed motor nerves or muscle tissue to locate and identify nerves and to test nerve and muscle excitability. Do not use this Stimulator when paralyzing anesthetic agents are in effect, as an absent or inconsistent response to stimulation may result in inaccurate assessment of nerve and muscle function. For a complete list of warnings and precautions regarding the use of the Stimulator please see www.checkpointsurgical.com



Direct Current Nerve Stimulators

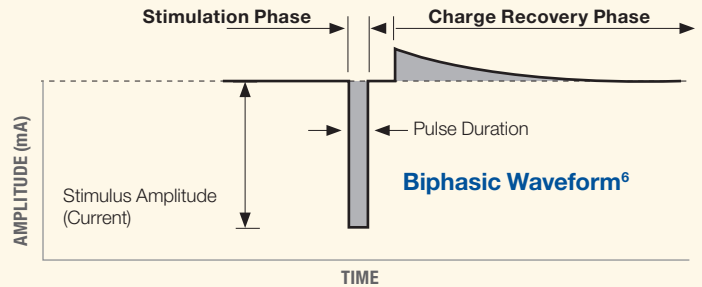
STIMULUS TYPE

DC stimulators deliver charge for as long as the stimulator is in contact with tissue. Limit nerve contact to 1 second maximum as indicated by the LED, as excessive pressure or prolonged locator contact with nerves may result in neural injury.¹



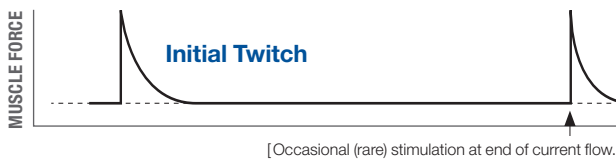
Checkpoint® Nerve Stimulator

Permits prolonged tissue contact without harmful build-up of charge. Checkpoint utilizes a biphasic waveform stimulation which delivers charge in a stimulation phase that is subsequently recovered.⁶

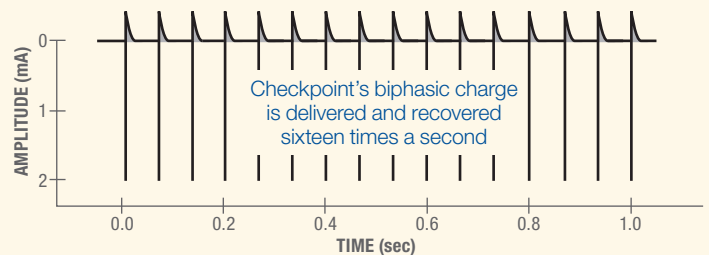


CHARGE DELIVERY & RESPONSE

Direct current stimulation does not result in a sustained motor response. Rather, it elicits a single "twitch" when the current is first applied (and sometimes another when the current is removed).



Less is more - Total current delivered by Checkpoint is at most 1% of the current delivered by a Direct Current stimulator (for equivalent stimulation amplitude of 2mA).



Tetanic contraction - Checkpoint is designed to elicit a visible, sustained muscle contraction.



For additional information contact us at:

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