

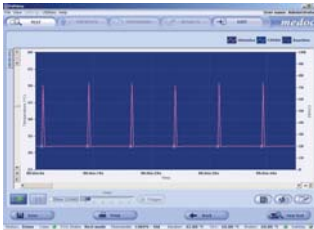
CHEPS Contact Heat Small-Fiber Evoked Potentials

PATHWAY
Pain & Sensory Evaluation System

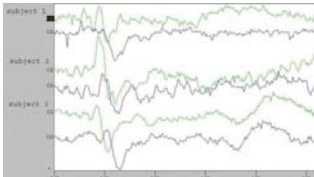
The **PATHWAY** Pain & Sensory Evaluation System is an advanced, computerized, thermal stimulator designed for neurological and pain research, with potential applications in the clinical domain.

CHEPS - Contact Heat Evoked Potential Stimulator delivers rapid heat pulses at a rate of up to 70°C/Sec from a baseline to 55°C in 250 milliseconds; enabling for the first time, selective activation and recording of small-nerve fiber cerebral-evoked potentials

A-Delta & C-fiber activated potentials open up exciting new avenues of exploration in evaluation of neuropathies and neuropathic pain



Activation of A-delta fibers via PATHWAY model CHEPS



Recording of A-delta stimulation of upper (green) & lower (blue) limbs

- Objective and non-invasive method to detect small-fiber neuropathies
- Rapid and sensitive method to differentiate neuropathies from chronic pain states
- Demonstrated correlation between CHEPS amplitudes and subjective pain experience
- Objective response to evoked-pain as influenced by experimental manipulations & treatments
- Use in fMRI environment synchronized with fMRI-compatible EEG recording for multi-modal evaluation of small-fiber function
- Potential new surrogate marker in pharmacologic development
- Rapid cold sensation stimulation enables recording of brain Evoked Potentials

Selected References

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