inomed

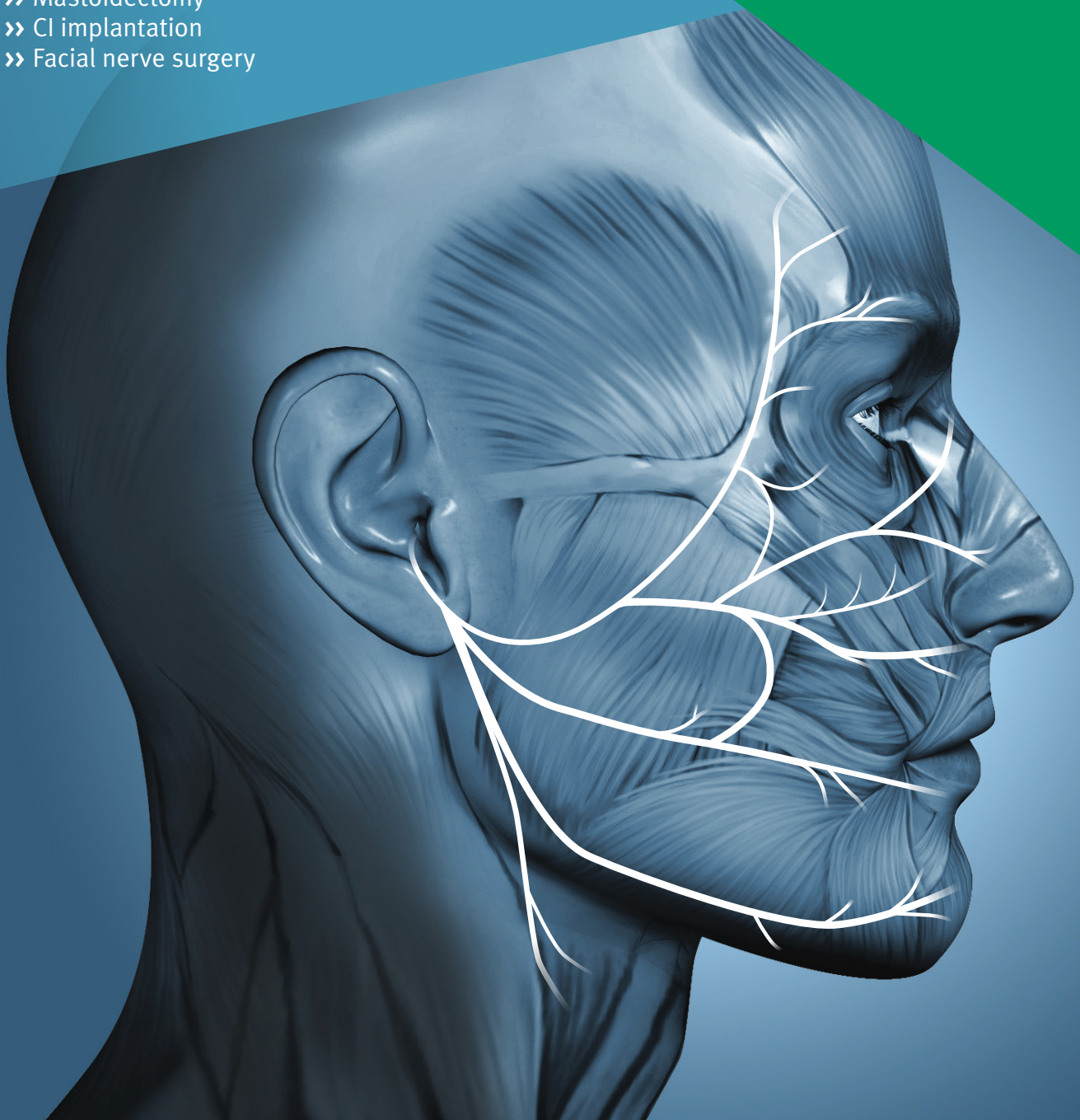
C2 NerveMonitor

APPLICATION FIELD

Ear, Nose and Throat surgery

Facial Nerve Monitoring

- Parotid surgery
- Tympanoplasty
- Mastoidectomy
- CI implantation
- Facial nerve surgery



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Neuromonitoring in ENT surgery

In parotid surgery, iatrogenic injury can be significantly reduced by neuromonitoring

Otorhinolaryngological surgery is delicate, complex and highly precise, as for example in surgery of the parotid gland. Protection of the branches of the facial nerve, which pervade the parotid in a fan-like arrangement, presents a special challenge to surgeons.

For many years, intraoprative neuromonitoring (IONM) has been a well-established method to help surgeons to monitor and localise nerve fibres in the surgical area and control their function to increase patient safety.

Saving Nerves – Minimising Risks

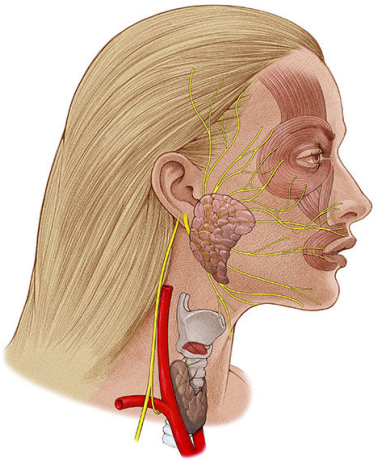
In parotid surgery, the facial nerve is at risk. Thanks to facial nerve monitoring, damage to the delicate nerve branches within the parotid and its immediate surroundings can be avoided.

Neuromonitoring is used in **two ways:**

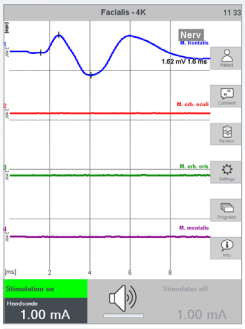
›› Signals and spontaneous activities resulting from contact of the surgical instruments with the nerve branches and from mechanical manipulation of the nerves are displayed acoustically and visually.

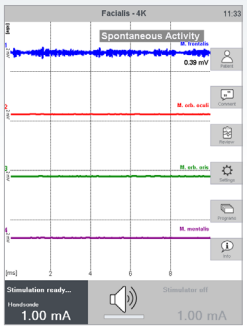
›› Hand-held probes can be used for localisation and visualisation of individual nerve branches within the parotid. These instruments stimulate the nerves electrically. The resulting muscle contractions are reported visually and acoustically.

Where tympanoplasty is performed or a cochlear implant inserted, inomed's neuromonitoring is a useful tool that helps to prevent nerve injury during milling near the bony facial canal. During mastoidectomy procedures, neuromonitoring techniques are used to reduce the risk of nerve injury during milling in the vicinity of the bony facial canal.



Measurement mode

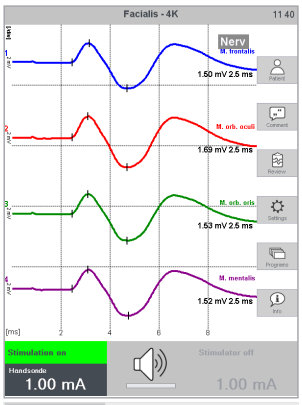


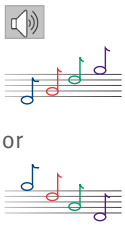


Using a hand-held stimulation probe, the nerve branches are localised during surgery, and their function is monitored throughout the procedure.
Bipolar probes are highly selective and can be used to monitor nerve branches and their function in the immediate vicinity, whereas monopolar probes have a wider field of action. For recording of electrophysiological signals, electrodes are placed in the corresponding indicator muscle. If there is any significant change in amplitude or latency of the muscle responses during the course of the surgery, the surgeon will be alerted visually and acoustically. Same in case of occurrence of spontaneous activity. Any detected spontaneous activity will be automatically recorded and can be annotated for documentation.

HL7-Ready

Network communication based on the **HL7 standard** for synchronization with the hospital management system.



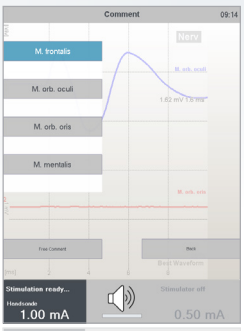


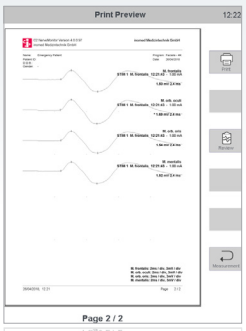
Channel Ident

Intuitive channel identification thanks to individual acoustic output. The different channels can be clearly identified acoustically by their sound. The channel with the highest detected EMG amplitude is always the one to give acoustic signal. The user can freely choose whether the sounds are to be assigned to the channels from high to low or from low to high. The Channel Ident function is available for triggered EMG signals.

Documentation

Thanks to the intuitive comment function of the C2 software, all relevant events can be controlled at any time, also retrospectively.





ENT **Accessories**

Art. No. 508 240
C2 NerveMonitor 4-channel system

Art. No. 508 280
C2 NerveMonitor 8-channel system
for intraoperative nerve monitoring. Easy to use EMG monitor with two integrated stimulation channels, including loudspeaker, footswitch and mains lead.

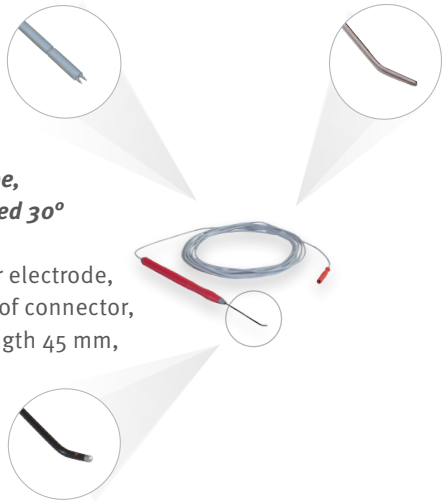
Art. No. 540 425
EMG-Electrode mini box
4 channels with ground
1.5 mm touchproof connector
› Delivered non-sterile
› Non-autoclavable

Art. No. 510 025
Mute sensor
to supress HF interference signals,
cable length 5 m
› Delivered non-sterile
› Disinfectable

› Stimulation

Art. No. 522 610
Micro Fork Probe straight
fork distance 2 mm,
fork length 3 mm,
1.5 mm touchproof connector,
work element length 45 mm,
cable length 3 m
› Single use
› ETO sterilised

Art. No. 522 603
BCS Probe,
bipolar concentric, angled 30°
1.5 mm touchproof connector,
work element length 45 mm,
cable length 3 m
› Single use
› ETO sterilised



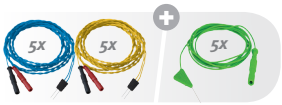
Art. No. 525 603
Stimulation Probe,
monopolar, angled 30°
active tip 2 mm,
with SDN counter electrode,
1.5 mm touchproof connector,
work element length 45 mm,
cable length 3 m
› Single use
› ETO sterilised

› Recording

2-channel set for 5 applications

Double Needle 2-channel set
with SDN Trigon electrode green,
5 electrodes each, blue/yellow or blue/red,
1.5 mm touchproof connector,
needle length 12 mm
needle distance 2.5 mm
› Single use
› ETO sterilised

Art. No. 534 641
electrodes blue/yellow



Art. No. 534 671
electrodes blue/red

4-channel set for 4 applications

Double Needle 4-channel set
with SDN Trigon electrode green,
4 electrodes each blue, yellow, grey, violet
1.5 mm touchproof connector,
needle length 12 mm
needle distance 2.5 mm
› Single use
› ETO sterilised

Art. No. 534 643
electrodes blue, yellow, grey, violet

Pioneer and partner
in neuromonitoring

Intraoperative Neuromonitoring
Functional Neurosurgery
Pain Treatment
Neurological Diagnostics

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