



Intraoperative Neuromonitoring

Functional Neurosurgery

Pain Treatment

Neurological Diagnostics

Dynamic continuous Mapping of the Corticospinal Tract

by Raabe

>> APPLICATION FIELDS

Neurosurgery

Protection of the corticospinal tract and motor cortex during tumor resection



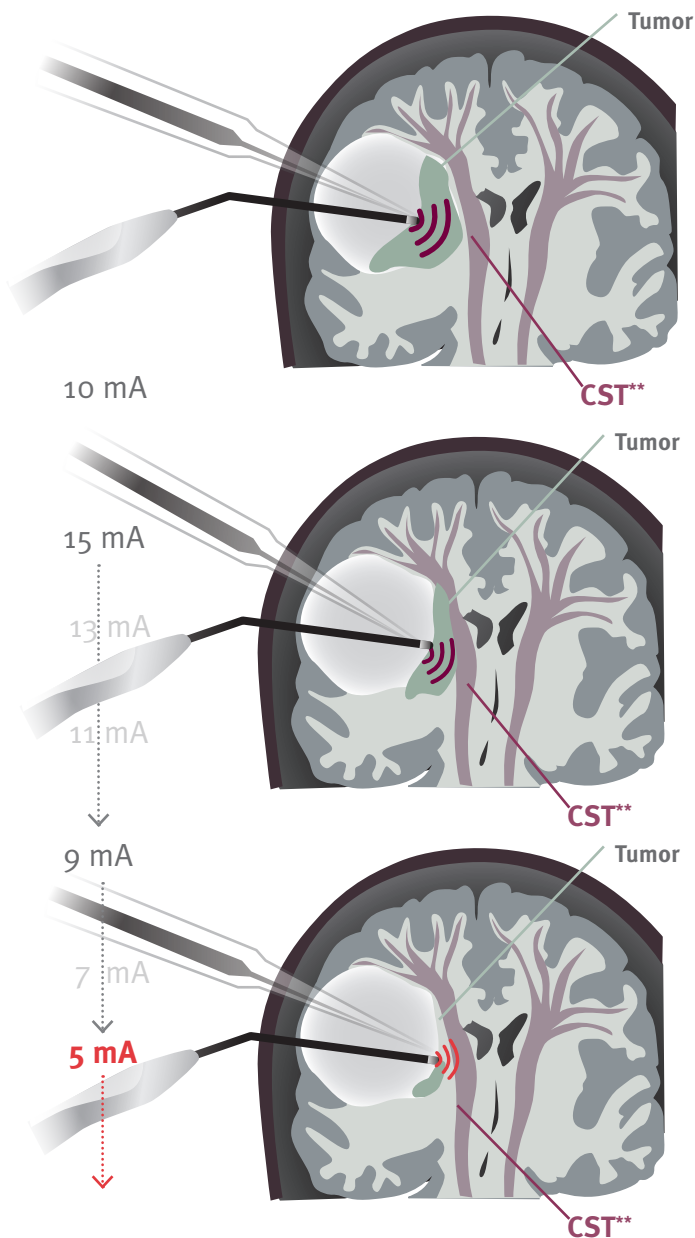
Innovativ Mapping Method with the
Mapping Suction Probe by Raabe

> Mapping Method by RAABE

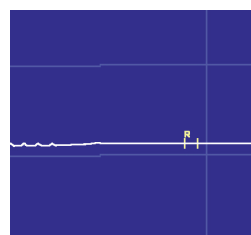
>> METHOD

Dynamic continuous subcortical mapping simplifies a **safe tumor resection.**

The ability to resect a tumor down to low motor thresholds is a significant refinement of the classic subcortical mapping of the corticospinal tract. The use of the Mapping Suction Probe makes it possible to achieve maximal tumor removal **minimizing the possibility of damage to the corticospinal tract**.



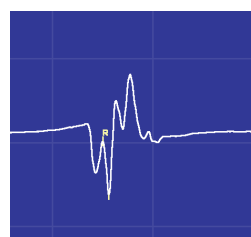
Safe



>> Mapping starts with 10 mA (ca. 10 mm distance to the corticospinal tract)

>> Current intensity is proportional to the distance of the corticospinal tract (Rule of thumb: 1mm \approx 1 mA)

Audio feedback



>> If a motor response is triggered, the current should be reduced in 2 mA steps until 5 mA is reached.

>> As soon as a motor response is triggered, the resection should continue on a more distant position to the corticospinal tract.

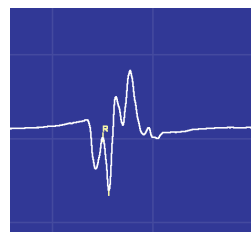
Safe



>> The suction tip is at any time on the same place where the resection is performed and enables continuous mapping.

>> The tumor resection should be terminated by the surgeon considering the progress of the operation and appropriate current intensity of the cortical MEPs.

Audio feedback



The method (*) is based on resection, where no MEPs will be triggered.

The method allows a safe tumor resection with better protection of the corticospinal tract and helps to prevent a postoperative permanent paresis.

> All-in-one surgical suction tube & stimulation probe

Especially for the new method of dynamic continuous subcortical mapping, the **MAPPING SUCTION PROBE** was developed in cooperation with Prof. Dr. Raabe.

The combination of a surgical suction tube and a monopolar electrical stimulation probe combines suction during tumor resection with simultaneous continuous dynamic mapping of the corticospinal tract.

>> BENEFITS

>> **Subcortical mapping with synchronous suction**

>> **Simplified maximal tumor resection**

>> **No change of instruments during the procedure**

>> **The method is supported by a continuous audio feedback**

1. A low-pitched sound is emitted if there is a motor response.
2. A high-pitched sound is delivered when current confirm is activated and there is no motor response allowing a continuation of resection.

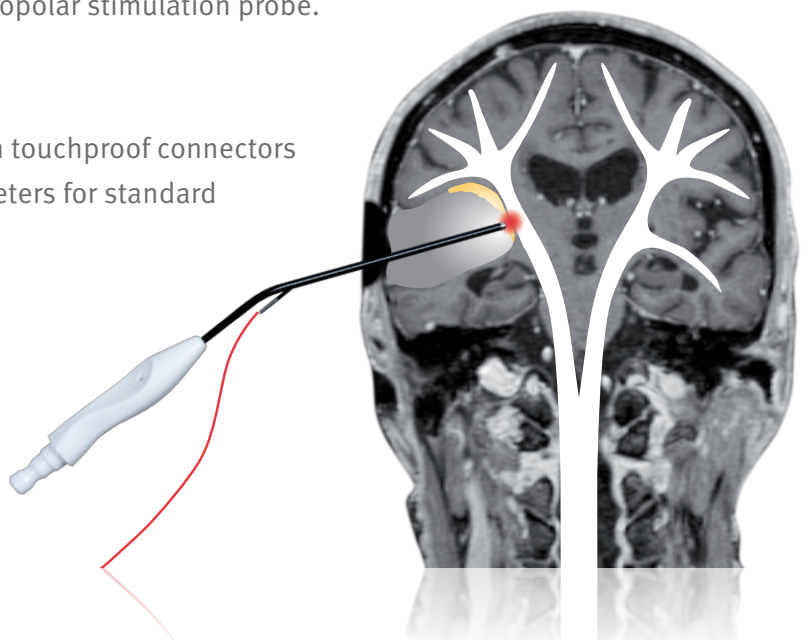


>> FEATURES

The monopolar electrical stimulation is delivered at the tip of the mapping suction probe. The shaft of the Mapping Suction Probe is insulated to ensure that the electrical contact is restricted to the tip of the Mapping Suction Probe only. The red connection cable of the stimulator is attached directly to the Mapping Suction Probe.

Stimulation parameters and the routine application of the Mapping Suction Probe is identical to the parameters of a standard monopolar stimulation probe.

- >> 2mm active tip
- >> Easy connection to stimulators with 1.5 mm touchproof connectors
- >> Stimulation parameters identical to parameters for standard monopolar stimulation probe
- >> Connection to commonly used suction





- >> Partnership
- >> Precision
- >> Innovation



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Mapping Suction Probe – order information:



Art.-No. 525 650
Mapping Suction Probe 120mm, monopolar
with connecting cable and black counter electrode

More information and further accessories:
www.inomed.com