

Supplementary Material 5

Resting Motor Threshold (RMT)¹

The resting motor threshold (RMT) reflects the excitability of corticomotor projections during muscle relaxation and is used to individually adjust the intensity of transcranial magnetic stimulation (TMS). The RMT is most often defined as the minimum intensity to elicit a motor evoked potential (MEP) of more than 50 mV in the target muscle in at least half of the trials.

MEPs were recorded from the right first dorsal interosseous (FDI) muscle using surface electromyography (EMG) (System PLUS Evolution; Micromed Company) with Ag–AgCl electrodes in a belly-tendon montage (Dantec Keypoint 9033A; Natus Medical Incorporated, Middleton, WI, USA). Single pulse TMS was delivered with a MagPro X100 stimulator equipped with the B70 fluid-cooled coil (MagVenture). The maximum surface magnetic field intensity of the coil was 4.2T. The coil was held tangentially to the skull, with the handle pointing posteriorly and laterally at an angle of 45° to the sagittal plane, at the optimal scalp site to evoke a MEP in the relaxed FDI, inducing a current flow in the posterior–anterior direction in the underlying cortical tissue in a plane perpendicular to the estimated alignment of the central sulcus. All experiments were performed with muscles relaxed. The RMT was defined as the lowest stimulator intensity at which 5 MEPs with a minimum peak-to-peak amplitude of 50 μ V were evoked from the resting FDI in 10 consecutive trials. Throughout the experiments, subjects were given high gain visual feedback of the EMG from the target muscle and instructed to attend to the muscle and maintain electrical silence. Any trials contaminated with EMG in the 100 ms prior to TMS were rejected offline prior to analysis.

1. Pitcher JB, Doeltgen SH, Goldsworthy MR, et al. A comparison of two methods for estimating 50% of the maximal motor evoked potential. *Clin Neurophysiol* 2015; **126**(12): 2337-41.

