A practical guide to diagnostic transcranial magnetic stimulation: report of an IFCN committee.

Transcranial magnetic stimulation (TMS) is an established neurophysiological tool to examine the integrity of the fast-conducting corticomotor pathways in a wide range of diseases associated with motor dysfunction. This includes but is not limited to patients with multiple sclerosis, amyotrophic lateral sclerosis, stroke, movement disorders, disorders affecting the spinal cord, facial and other cranial nerves. These guidelines cover practical aspects of TMS in a clinical setting. We first discuss the technical and physiological aspects of TMS that are relevant for the diagnostic use of TMS. We then lay out the general principles that apply to a standardized clinical examination of the fast-conducting corticomotor pathways with single-pulse TMS. This is followed by a detailed description of how to examine corticomotor conduction to the hand, leg, trunk and facial muscles in patients. Additional sections cover safety issues, the triple stimulation technique, and neuropediatric aspects of TMS.