

## INNOVATIVE APPROACH IN THE STUDY OF MUSCLE STRENGTH - THEORETICAL BASIS <sup>12</sup>

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**Abstract:** *The assessment of a patient's muscle strength is one of the most important vital functions that is typically monitored. Specifically, strength assessment is necessary for determining distribution of weakness, disease progression, and/or treatment efficacy. Several assessment techniques and tools are currently available to the healthcare provider and/or researcher, yet each has its unique attributes. Nevertheless, as outcomes-based medical practice becomes the norm, the need for quantitative outcomes assessment of muscle strength will become even more important.*

*Standardized strength-testing procedures are important regardless of whether MMT or HHD are used. MMT is simple, easy to use, and therefore clinically practical. However, the reliability and responsiveness of MMT is uncertain for strength greater than 3/5. HHDs potentially quantify strength numerically by recording force output. Because of the portability of HHDs, they are useful in the clinical/bedside environments for tracking strength changes.*

**Keywords:** *Muscle Testing, Muscle Strength, Measurement of Muscle Strength, Dynamometers, Hand-Held Dynamometry, HHD, MMT*

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