

原著

## 高齢者作業能力測定装置の開発

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## Development of the Measuring Instrument for Working Ability of the Aged

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### Abstract

The evaluation of physical ability of the aged is needed not only to support himself in his daily life, but also to make and improve the working condition in companies, because Japan goes into society of the aged rapidly. So we have developed the measuring instrument for working ability of the aged that can measure the ability of daily life and labor life easily. Measuring contents of this instrument are back strength (① lifting strength), alacrity (② moving arm right and left, ③ moving range), strength of hand and fingers (④ push strength of thumb, ⑤ angle of grasp and turn), raising hand (⑥ distance of raising hand from the shoulder with weight load), working posture (⑦ anteflexion angle of the waist, ⑧ squat down angle of the knee) and walking ability (⑨ walking speed). For assessment of the measuring value, we proposed the methods that were applied MODAPTS (Modular Arrangement of Predetermined Time Standard) and MTM (Methods Time Measurement) methods, and examined the propriety of the methods.

### 要約

高齢者の身体的能力を評価することは、日常生活を支援するためだけでなく、労働環境条件を改善するためにも必要である。そこで、日常生活能力および労働能力を簡便に定量化することができる高齢者作業能力測定装置を開発した。本装置は、背筋力(①持ち上げ力)、敏捷性(②腕の左右運動、③可動範囲)、手指の力(④親指の押す力、⑤持って回す角度)、手を上げる(⑥重量負荷での肩からの挙手距離)、作業姿勢(⑦腰の前屈角度、⑧膝のしゃがみ角度)および脚力(⑨歩行速度)を測定することができた。測定結果を評価するために、MODAPTS (Modular Arrangement of Predetermined Time Standard) 法および MTM (Methods Time Measurement) 法を応用して基準値を設定する方法を提案し、その妥当性を検討した。

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