FOOT ASSESSMENT

Reliability and usage of clinical parameters

Several methods and protocols are being used in clinical practice to analyze feet. Not only does the selection of the method mainly depend on the experience of the clinician, the terminology can also differ. We asked ten experts to assess the feet of a single group of healthy subjects and performed a statistical analysis.

WHICH EXPERTS PARTICIPATED

1 podiatrist
3 podiatrists
1 foot surgeon
5 CPOs*

* CPO: certified prosthetist/orthotist

WHICH SUBJECTS PARTICIPATED

37 subjects without foot deformities
19y, 61y
mean 33y

WHICH FOOT CHARACTERISTICS

21 static characteristics
e.g. Longitudinal arch height

13 mobility characteristics
e.g. Range of motion (ROM) MTP1

26 dynamic characteristics
e.g. Rear foot, initial contact (varus/valgus)

multiple choice questions
e.g. yes/no, varus/normal/valgus

WHICH CHARACTERISTICS ARE RELIABLE

3 criteria

forward speed of COP line

supination/pronation
midfoot (midstance)

pivoting around forefoot (propulsion)

ROM 5th ray

heels move in lateral direction when standing on toes (yes/no)

Jacks test

longitudinal arch height

forefoot vs. hindfoot (inverted/everted)

unreliable

(moderately/very) reliable

unknown (not popular/diverse)

DISCUSSION

It is hard to make a strict separation between reliable and unreliable characteristics. We need to be careful when we state that a characteristic is unreliable as this may be due to a lack of a specific foot type in the dataset. We tried to solve this by introducing the diversity and popularity as additional criteria.

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