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## ICF orientated clinimetrics for compression trials in lymphedema



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# ICF (international classification of functioning, disability and health)

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- Model to describe human functioning in relation to the health condition and the contextual factors
- Accepted by the WHO in 2001
- Bio-medical psycho social model for classification
- For chronic diseases
- Good comparability of studies / outcome in research

# ICF

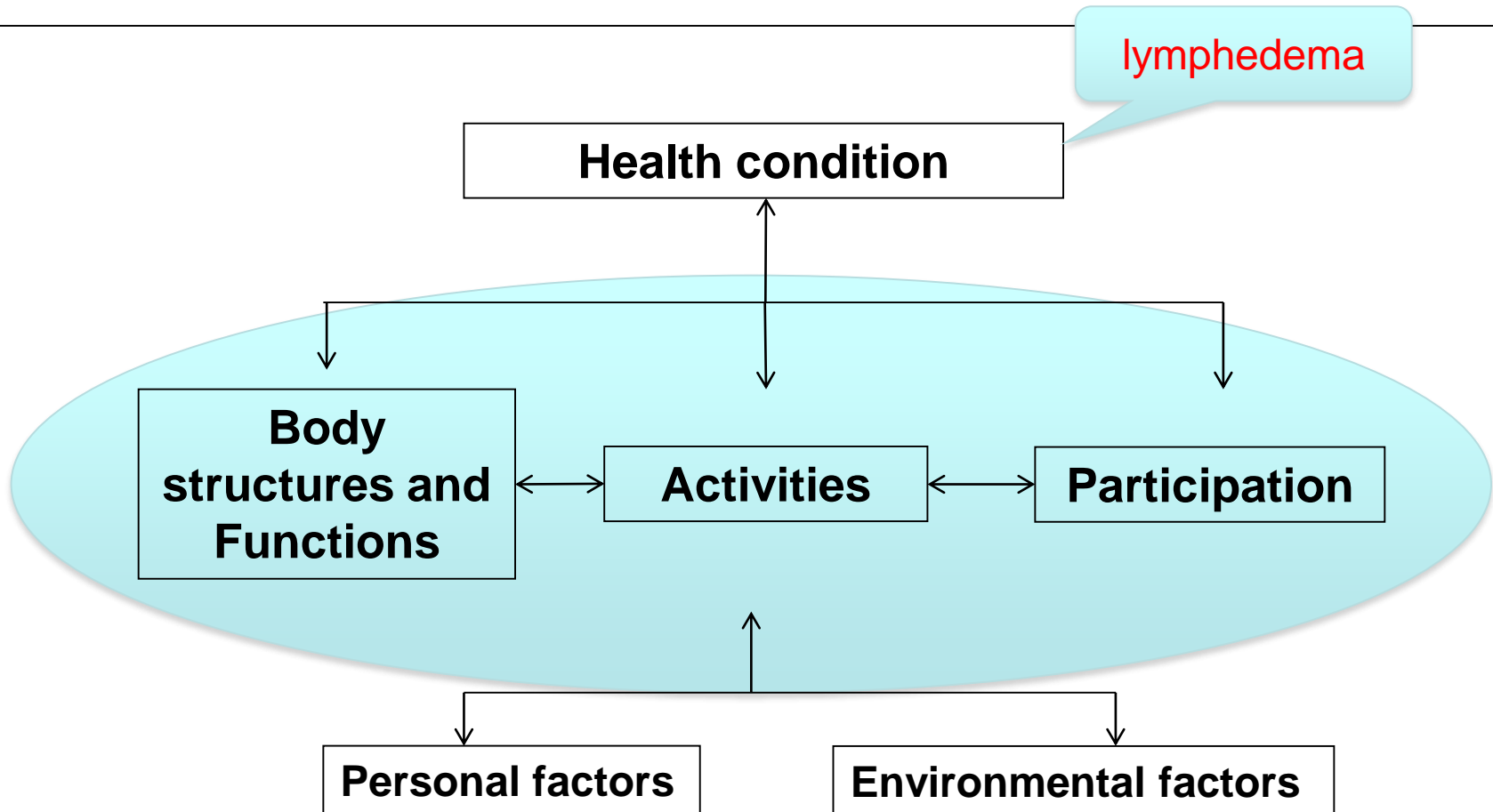
## Classification model

- One language
- Compare / code
- >1400 categories
- Scientific research

## Conceptual model

- Organise
- Clinical reasoning
- Core sets / brief core sets
- Daily practice

# ICF model



*World Health Organisation, International Classification of Functioning, Disability and Health: ICF. 2001, Geneva: WHO.*

# ICF components examples

## Body function and structures

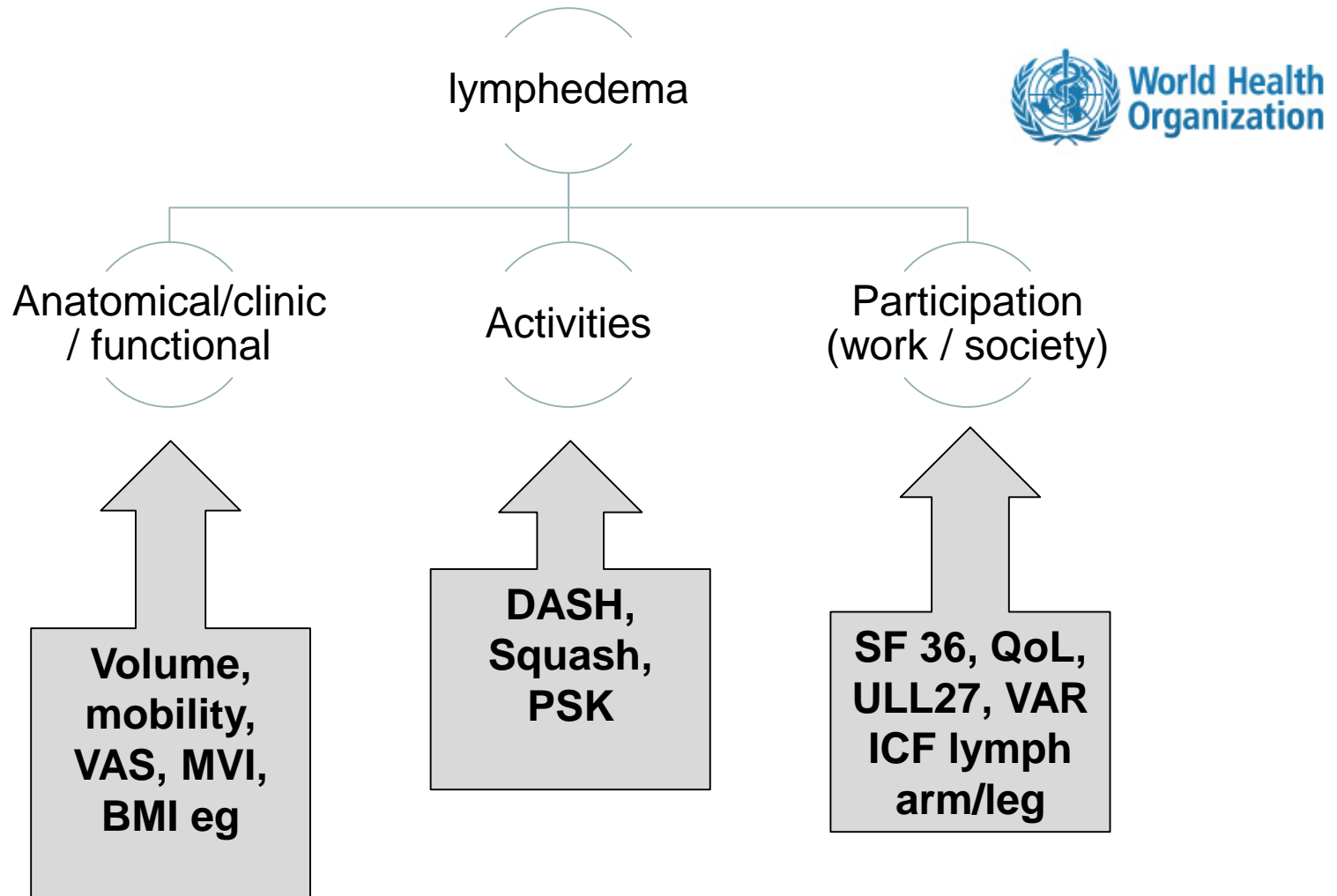
- Swelling
- Limited range of motion
- Pain
- Loss of muscle strength
- Fatigue
- Physical capacity

## Activities and participation

- Limitations in activities of daily living
- Restriction in Participation

Quality of Life is affected

# Which clinical endpoints are most important for the patient / professional and can be measured (clinimetry)



# Health-related patient reported outcomes HR-PROs

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- Patient reported Outcome Measures (PROM's)
- All types of questionnaires
- COSMIN rules for HR-PRO / PROM and quality of articles

*Terwee, CB et al. Rating the methodological quality in systematic reviews of studies on measurement properties: a scoring system for the COSMIN checklist. Int. J Qual Life Aspects Treat, Care Rehab 2012: 21(4), 651–657*

**Fig. 1** COSMIN taxonomy of relationships of measurement properties



*Mokkink LB et al. The COSMIN checklist for assessing the methodological quality of studies on measurement properties of health status measurement instruments: an international Delphi study. International Journal of Quality of Life Aspects of Treatment, Care and Rehabilitation, 19(4), 539–549.*



# ICF clinometrics in compression trials

Short term studies

Long term studies

## Material properties

Pressure

Stiffness

SSI / SSI

Anatomical/clinic /  
functional

Volume,  
mobility,  
VAS,  
goniometry

Lymphedema  
treatment: HR PRO

Activities

PSK  
(Patient  
specific  
complaints)

Participation (work  
/ society)

SF 36,  
ULL27, VAR  
ICF lymph  
arm/leg

# Conclusion of clinimetrics in compression trials

## Material related

- Choose binary / mathematical methods
- Pressure / stiffness
- Strength
- Choose existing validated tools

## Patients related: ICF

- COSMIN for HR PRO's
- 3 domains of ICF
- Choose binary / mathematical methods
- Choose existing validated tools