

## EuroQol-5D-5L (EQ-5D-5L)

Generic measure of health status based on 5 dimensions of health including mobility, self-care & pain

## Phases

Pre-op  
Post-acute  
Active living



## ICF

Body function  
Participation  
HRQoL



## Time

5 mins to  
administer & score



## Administration

Print & electronic versions



## Quality



## Validity

**Criterion:** Hip/ knee OA: Strong correlation with WOMAC pain & function scores (-0.688 & -0.782) (Spanish version).<sup>2</sup>

**Convergent:** TJA: Strong correlation with Oxford Hip/Knee at baseline & 1-yr post-op (correlation coefficients: THA=0.78, 0.72; TKA=0.79, 0.74).<sup>3</sup> Poor agreement with SF-6D/15D.<sup>4</sup> Knee OA: correlated with arthritis duration & higher WOMAC OA Index & SF-36 higher scores, but lacked discriminative ability for those with moderate disabilities.<sup>4</sup>



## Reliability

**Internal Consistency:** Knee/Hip OA: Cronbach's alpha at baseline & 6-mos = 0.89 & 0.86 (Spanish version).<sup>2</sup>



## Responsiveness

TKA: ES=1.19, SRM=1.04<sup>3</sup>; THA: ES=1.86; SRM=1.53.<sup>3</sup> Effect sizes smaller than those for Oxford Hip and Knee scores.<sup>3</sup> Knee/hip OA: ES=0.39 (worsened), 0.05 (unchanged), 0.40 (improved) (Spanish version).<sup>2</sup> THA/TKA: ES=1.48 (Spanish version).<sup>2</sup> Knee/hip OA: SRM= 0.42 (worsened), 0.06 (unchanged), 0.38 (improved) .<sup>2</sup> THA/TKA: SRM=1.48 (Spanish version).<sup>2</sup> TKA/THA: Both 3L & 5L versions are responsive to change in HRQoL but 5L is more sensitive.<sup>5</sup>



## Floor/ceiling effects

TJA: Ceiling effects post-surgery ranged from 18% (TKA) to 36% (THA) compared to 5% & 23%, respectively for Oxford scores.<sup>3</sup> No floor effects.<sup>3</sup> Knee/Hip OA: minimal floor & ceiling effects (< 3%) (Spanish version).<sup>2</sup>



## Feasibility

Quick to complete & score, routinely used in joint replacement clinical registries, but requires free registration to use.



## Instructions

2 versions of EQ-5D: 3-level EQ-5D-3L (no problem, some problem, extreme problem) & the 5-level EQ-5D-5L (no problem, slight problem, moderate problem, severe problem, extreme problem).<sup>1</sup> Both include the EQ-VAS (self-reported overall health status 100 = the best health you can imagine; 0 = the worst health you can imagine).<sup>1</sup>

Ask patient to respond to questions based on how they feel today. See 'Relevant Links' for detailed instructions.

Scoring: Record numerical 'level' of the response to each question (i.e. a response of '4' is coded as Level 4).<sup>1</sup> The levels can be combined as either: (a) a 5 digit 'health state' (e.g. 12443) or (b) a single number 'index value' which reflects how good or bad a health state is according to the preferences of the general population of a country/region.<sup>1</sup>



## Interpretation

**Direction:** Lower scores on the 5 dimensions & a higher score on the VAS indicate better health

**SEM:** Knee/Hip OA: 0.11 (Spanish version).<sup>2</sup> Noninstitutionalized adults, aged 35 to 89: 0.093.<sup>6</sup>

**MDC** : Knee/Hip OA: Individual = 0.30, Group = 0.01(Spanish version).<sup>2</sup>

**MID:** TJA: 0.09 (TKA) & 0.12 (THA)<sup>5</sup>, 0.20 (TKA) & 0.22 (THA) for those who rated their hip or knee as ‘somewhat better’ 1-yr post-surgery.<sup>3</sup> Wide variation in MID & percentage of responders, depending on the joint, method of assessment, & the assessment method.<sup>3</sup>

**MCID:** Knee/Hip OA & TJA: Ranges from 0.03 to 0.54.<sup>7</sup> For patients post-surgery that reported “improvement”, the MCID was slightly higher for patients with THA (~ 0.40), & slightly lower in TKA “improved” (~ 0.30), at 1-yr. Knee/Hip OA: Non-surgical improved (0.07), non-surgical worsened (-0.05), surgical (0.32). (Spanish version).<sup>2</sup>

**Normative data/reference values:** Normative data available for many countries (including Canada).<sup>8</sup>

**Cut points/thresholds:** TKA: Threshold for treatment success after TKA is 0.79 at 2-mos & 0.80 at 12-mos.<sup>9</sup>

**PASS:** THA: Thresholds of 0.77-0.92 predicted satisfaction 1-yr post THA.<sup>10</sup>



## Other

**Key messages:** Provisionally recommended. Extensively used in research & in surgical registries but rarely used as a primary outcome in intervention studies, making it difficult to evaluate its appropriateness to detect change.<sup>4</sup> EQ-5D-5L is preferred to EQ-5D-3L as it has greater sensitivity and lower ceiling effect. For primary TJA the EQ-5D-5L has support as a generic HRQoL PROM to be used with a condition-specific outcome measure.<sup>2</sup>

**Translations:** Available in more than 170 languages.<sup>11</sup>



## Relevant Links

[How to obtain EQ-5D \(EuroQol\)](#)

[User guides \(EuroQol\)](#)

[Normative data \(EuroQol\)](#)

[Summary & instructions \(EULAR\)](#)



## References

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11. EuroQol Research Foundation. EQ-5D: available versions and modes of administration. EuroQol Research Foundation. 2023. Accessed November 30 2023. <https://euroqol.org/eq-5d-instruments/all-eq-5d-versions/>

