

Supplemental Table 1. Definition of frailty in the Osteoporotic Fractures in Men (MrOS) Study.

Characteristic	Definition
Shrinking; sarcopenia	Lowest 20% of appendicular lean mass, adjusted for height and total body fat*
Weakness	Weakest 20% of grip strength, stratified by body mass index (BMI): <ul style="list-style-type: none"> ○ Grip strength < 32 kg for BMI quartile 1 (BMI < 24.8 kg/m²) ○ Grip strength < 34 kg for BMI quartile 2 (24.8 kg/m² ≤ BMI < 27.0 kg/m²) ○ Grip strength < 36 kg for BMI quartile 3 (27.0 kg/m² ≤ BMI < 29.4 kg/m²) ○ Grip strength < 36 kg for BMI quartile 4 (BMI ≥ 29.4.0 kg/m²)
Poor endurance; exhaustion	Exhaustion: self-report from question on SF-12:† <ul style="list-style-type: none"> ○ How much of the time during the past four weeks did you have a lot of energy? (A little/none of the time = exhaustion)
Slowness	Slowest 20% in walking speed over a 6 m course, stratified by height: <ul style="list-style-type: none"> ○ Walking speed ≤0.99 m/s or unable for height ≤ 174.4 cm ○ Walking speed ≤1.06 m/s or unable for height >174.4 cm
Low activity	Lowest 20% of PASE score‡ (score <88.4, range 0 – 486)

* Lowest 20% of residuals from regression of appendicular skeletal mass on height and total body fat.

† SF-12: Medical Outcomes Survey Short Form, 12 item questionnaire

‡ Physical Activity Scale for the Elderly, higher scores indicate higher activity level