

Grip Strength Interpreter

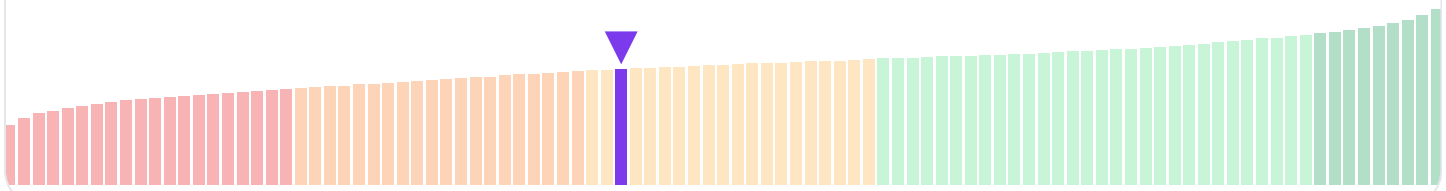
Grip strength is a strong and independent predictor of mortality. Discover your grip strength percentile, evaluate its impact on mortality, and estimate the risk of future muscle weakness.

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Peter Novak | 48M

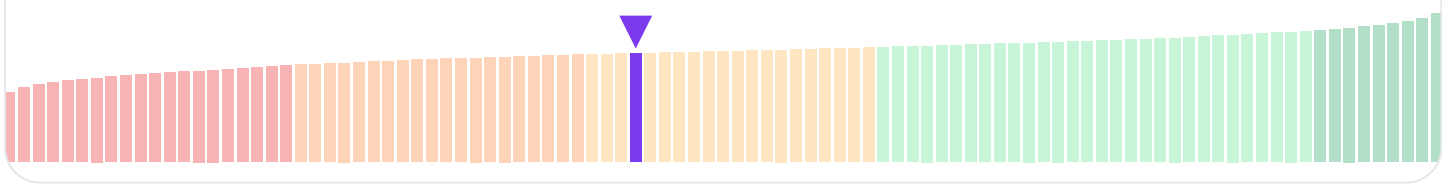
• Average

Stronger than **43%** of 48-year-old ▼ males, when adjusted for BMI ?



BMI-adjusted grip strength: **1.66** kg | BMI: **29** | Dataset: white Americans_ [↗](#)

Stronger than **44%** of 48-year-old ▼ males



Absolute grip strength for age and gender, regardless of height and weight.

Impact on All-Cause Mortality

Lower grip strength is a strong and independent predictor of increased all-cause mortality ?

Grip Strength	Percentile		ACM HR **	ACM reduction *
	BMI-adjusted	Absolute		
48.0 kg	42nd %	44th %	1.43	0%

Grip Strength	Percentile		ACM HR **	ACM reduction *
	BMI-adjusted	Absolute		
52.0 kg	59th %	68th %	1.27	11%
56.1 kg	76th %	84th %	1.13	21%
60.1 kg	85th %	94th %	1	30%

* Potential decrease in your risk of dying from any cause.

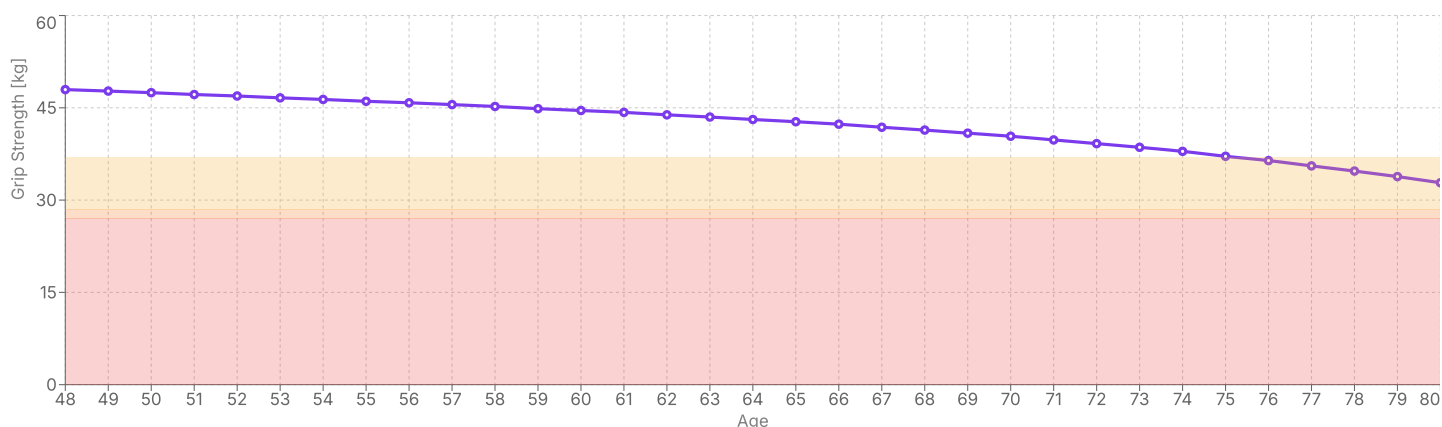
** Hazard ratio for all-cause mortality.

For context, here are hazard ratios for common diseases:

- Type 2 diabetes (controlled); HR: 1.11 - 1.25 [↗](#) [↗](#)
- Prehypertention (120 - 140 SBP); HR: 1.22 [↗](#) [↗](#)
- **Light smoking (1-10 cigarettes/day); HR: 1.4 - 2.2** [↗](#) [↗](#) [↗](#)
- **Hypertension - Stage 1 (140 - 160 SBP); HR: 1.42** [↗](#)
- Type 2 diabetes (poorly controlled); HR: 1.69 - 2.26 [↗](#) [↗](#) [↗](#)
- Hypertension - Stage 2 (>160 SBP); HR: 2.15 [↗](#)
- Heavy smoking (≥20 cigarettes/day); HR: 2.5 - 4 [↗](#) [↗](#) [↗](#)

Will you be able to carry groceries as you age?

Obviously, future grip strength cannot be reliably predicted. Therefore, I use a naive approach: first determine your current percentile based on your absolute grip strength and then assume you remain at that same percentile in each future year. This rough estimate answers a question: **Am I trending towards trouble?**



Area in yellow: Self reported difficulty in walking 0.5-km or climbing one flight of stairs without resting (ages 55+). Grip strength < 37 kg for males. [↗](#)

Area in orange: Self reported inability to manage heavy tasks (eg, lifting or carrying 11kg objects). Grip strength < 28.5 kg for males. [↗](#)

Area in red: EWGSOP2 sarcopenia diagnostic cut-off. Grip strength < 27 kg for males. [↗](#)

Your absolute (not BMI adjustment) grip strength percentile for an average 48-year-old males: **44th percentile**.

Biomarkers used in this tool

Values as entered. An arrow marks a value outside the optimal range.

Grip Strength (Maximal): **48** kg ; Weight: **92** kg ; Height: **178** cm ; age: **48** years ; Gender: **Male**