Grip Strength:
The New Essential Biomarker for Frailty

Imagine if a simple handshake could offer powerful insights into someone's vitality and overall health.

This isn't just a metaphor - grip strength has emerged as an indispensable data point for assessing and monitoring longevity and patients with complex health conditions.

The measurement of grip strength in aging patients provides a fast, non-invasive gauge of functional health as it is closely linked to sarcopenia and frailty, reflecting overall muscle mass and strength that naturally declines with age. Reduced muscle mass and strength lead to decreased physical function and increased frailty, heightening the risk of events such as falls or infections, which drive up healthcare utilization and costs.

This document explains how grip strength can be used in clinical practice to assess sarcopenia and frailty in aging patients.

> "Grip strength is a key indicator of health; it's a proxy for your overall strength and physical function."
>
> 'Outlive' by Peter Attia MD; Longevity Expert

Must-Know Metrics

Frailty

Grip strength below 44.1 lbs* for men and 28.8 lbs* for women is one of the five key criteria for identifying frailty according to the Fried Frailty Phenotype (FFP). [1]

Mobility Limitations

Grip strength below 48.7* lbs for men and 32.0 lbs* for women is a key threshold for identifying mobility limitations, particularly a walking speed of less than 0.8 m/s. [2]

Sarcopenia

Grip strength below 41.0 lbs* for men 24.3 lbs* and for women is a key criterion for diagnosing sarcopenia, as defined by the European Working Group on Sarcopenia in Older People (EWGSOP2).[3]

*Note that all cut off points have been converted to GripAble-equivalent measurements for consistency

Citations:
[1] Fried et al., 2011 [2] Delinocente et al., 2021 [3] Cruz-Jentoft et al., 2014

Grip Strength in Practice

Clinical Application

Measure grip strength during routine check-ups to assess risk factors and track trends over time. For high-risk patients, consider providing a hand dynamometer for regular, at-home monitoring. Pay attention when grip strength drops below cut-off points or decreases by more than a quartile.

Patient Empowerment

Give patients access to their grip strength scores - a clear, tangible measure they can easily understand and actively improve with guidance. Unlike blood pressure, grip strength is relatable and empowering, enabling patients to track their progress as a key indicator of their independence.

Practical Considerations

Let grip strength support other standard measurements in geriatric assessments:

- Replace gait speed tests with grip strength in scenarios where falls risk is significant
- Add objective insights to patient-reported outcomes with this minimally invasive tool.

Impact

Reduce Utilization: understand which patients are sarcopenic and at the highest risk for frailty and falls

Improve Patient Satisfaction: give patients a quick, non-invasive tool to monitor their strength levels and response to treatment (eg strengthening programs) at home

Support Risk Adjustment: frailty and sarcopenia are common threads through most HCC codes. Use grip strength as an objective way to show impact of disease on patients' full body strength

What next?

Explore

Dive into our extensive collection of studies on grip strength and frailty here.

Understand

Get the essentials on hand dynamometry and how to integrate grip strength into your practice with ou guide.

Implement

Discover how Able Assess can enhance grip strength evaluation and streamline assessments in your practice.

Contribute

Partner with us in research or patient case studies to advance the knowledge of grip strength as a biomarker.

Get in touch via email to hello@able-care.co or visit our website at www.able-care.co