

# In brief:

## 'Frailty' takes on added urgency in today's senior population

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Nearly two decades ago, researchers predicted the coming wave of "boomers" would be the first group of seniors whose onset of old age would not be synonymous with frailty.

While today's emerging seniors are unquestionably healthier than their predecessors, most still struggle with the inevitable consequences of bodies exposed to lifetimes of stress and abuse, notably muscle weakness, exhaustion and weight loss. The condition confounds most medical researchers. The journal [Lancet](#) describes frailty as "the most problematic expression of population aging" today.

Back in 2006, a Boston Globe series led some to believe [frailty was an avoidable condition](#) thanks to new medicines, while unveiling promising new treatments.

In the ensuing years, however, extensive research has given the inevitable condition a new name – "frailty syndrome" – a series of age-related functional deficits often engaging multiple parts of the body from the brain to the endocrine system.

For seniors with serious chronic ailments, frailty has come to be seen as a reliable predictor of premature death and the leading contributing factor **in 30% of all deaths among those over 65** - above cancer, organ failure and dementia, according to Dr. Steven Buslovich, co-founder of Patient Pattern, a clinical decision support software developer. Dr. Buslovich says frailty syndrome is now recognized as a global standard of clinical risk.

In 2019, Beth Israel Deaconess Medical Center researchers found that frailty was a determining factor in 30-day hospital readmissions and death for older Medicare recipients with heart problems and pneumonia.

Its prevalence obviously increases with age and number of chronic diseases – as low as 4% among those younger than 70 and more than 25% among those over 80. Women are far more prone to succumbing to frailty than men, according to [Medical University of South Carolina researchers](#).

Make no mistake: "frailty" is hardly a catch-all term used by clinicians to describe an elderly person's infirmity.

According to the journal [BMC Geriatrics](#), frailty is officially measured by the sum of eight key indicators: weakness, fatigue, weight loss, low physical activity, poor balance, low gait speed, visual impairment and cognitive impairment.



Its most devastating impacts can often be found in the brain, where critical neurons controlling the body's metabolism and repair functions slowly deteriorate or cease to function altogether. Frailty plows the road in the body's endocrine system, wreaking havoc on metabolism and energy distribution.

### Warning signs

As scientists have dived deeper into the things that give rise to frailty, they're finding a number of common indicators. For example, researchers from The Irish Longitudinal Study on Ageing [reportedly](#) found that frailty among those over

the age of 50 was typically accompanied by low levels of vitamins and antioxidants, leading some to believe the condition could be reversed if caught early enough.

Other researchers have [theorized](#) the chronic inflammation accompanied by elevated levels of interleukin (IL)-6 and cortisol, as well as unusual immune system triggers, were early indicators of impending frailty syndrome. Researchers also have called sarcopenia, or loss of muscle mass and strength, a “hallmark” of frailty syndrome. Sudden declines in testosterone and estrogen in men and women are other early indicators.

## Looking ahead

While ongoing research continues peeling back the layers of frailty syndrome, there have been promising developments in the areas of pharmacology, nutrition, exercise and care coordination. proteins from meat, poultry, fish and eggs) were linked with lower incidences of frailty.



[A 2013 Swedish study](#) demonstrated marked improvements in the ADLs of seniors with frailty syndrome following case manager controlled interventions involving collaboration between hospital-based geriatric specialty nurses and multi-professional care teams.

Researchers reporting in [The Lancet](#) concluded in 2013 that elderly exposed to comprehensive geriatric assessments were less likely to experience cognitive or functional decline and have lower in-hospital mortality.

The study also explored positive pharmacotherapy interventions such as angiotensin converting enzyme (ACE) inhibitors, which improve the structure and biochemical structure of skeletal muscle and halt declines in muscle health in older age.

In that study’s conclusion, study authors said exploring new methods to detect and severity grade frailty as part of physicians’ clinical practice would be “the basis for a paradigm shift” in the care of frail elderly.

By most accounts seven years later, medicine appears to be getting closer than ever to understanding frailty syndrome, inching ever closer to interventions that could eventually improve the lives of thousands of people. Many of their findings along the way have unearthed surprising things.

[A BMC Geriatrics study](#) in early 2020, for example, found detectable pre-frailty in adults as young as 40, and the syndrome appears not to be linked to age or gender. Unfortunately, for now, the medical community continues wrestling with this one irrefutable fact: left untreated, frailty makes all of its victims far more susceptible to negative outcomes when other serious illnesses, like cancer, strike.

As the author of the [“Healthy Aging Newsletter”](#) warns, “Frailty can be prevented or treated with exercise, diet, and good medical care. It is up to each of us to do our best to not join the medically frail as we age.”

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