

# Muscle mass should be considered a new vital sign, research shows

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Adults go to the doctor roughly three times a year, during which vitals are taken, including blood pressure, pulse and weight. But are these measurements really showing the full picture of a person's overall health? Extensive research shows health care professionals should be considering something often overlooked—muscle mass. A new review

paper published in the *Annals of Medicine* confirms the critical role muscle mass plays in health. It reports studies demonstrating that people with less muscle have more surgical and post-operative complications, longer hospital stays, lower physical function, poorer quality of life and overall lower survival.

The review examined the latest research over the course of a year (January 2016—January 2017) including more than 140 studies in inpatient, outpatient and long-term care settings, and had one resounding conclusion—muscle mass matters. The data show muscle mass can say a lot about a person's overall health status, especially if living with a chronic disease. For example:

- A study in the *Journal of the American Medical Association (JAMA)* showed women with breast cancer with more muscle had a nearly 60 percent better chance of survival.
- Patients in the [intensive care unit \(ICU\)](#) with more muscle spend less time on ventilators, as well as less time in the ICU, and have a better chance of survival.
- People with chronic [obstructive pulmonary disease \(COPD\)](#) who have more muscle experience better respiratory outcomes and lower occurrence of osteopenia or osteoporosis.
- A study found individuals in long-term care settings who have lower muscle mass experience more severe Alzheimer's.

"Muscle mass should be looked at as a new vital sign," said Carla Prado, Ph.D., R.D., associate professor at the University of Alberta and principal author of the paper. "If [health care professionals](#) identify and treat low muscle mass, they can significantly improve their patients' health outcomes. Fortunately, advances in technology are making it easier for practitioners to measure muscle mass."

## **Muscle up for better health**

For decades, health care professionals have relied on [body mass index](#) (BMI) to assess a person's health, mainly because it requires a simple calculation. But this measurement can be misleading since it doesn't distinguish between muscle mass and fat mass. Low muscle mass can occur at any body weight, so someone who is normal weight may appear healthy, when they can in fact lack muscle. While there's potential for body composition tools—which measure [muscle mass](#)—to become more routinely used and available in healthcare settings, health professionals can use screening questionnaires and other simple methods to identify people at risk.

"Muscle may be skin deep, but it should be top of mind based on the growing body of science," said Suzette Pereira, Ph.D., research scientist at Abbott and one of the paper authors. "Something as simple as the firmness of a person's handshake can give a lot of insight into their overall health, and it's never too late to rebuild [muscle](#) with good nutrition, including protein, and proper exercise."

**More information:** Carla M. Prado et al, Implications of low muscle mass across the continuum of care: a narrative review, *Annals of Medicine* (2018). [DOI: 10.1080/07853890.2018.1511918](https://doi.org/10.1080/07853890.2018.1511918)

The Premenopausal Breast Cancer Collaborative Group. Association of Body Mass Index and Age With Subsequent Breast Cancer Risk in Premenopausal Women, *JAMA Oncology* (2018). [DOI: 10.1001/jamaoncol.2018.1771](https://doi.org/10.1001/jamaoncol.2018.1771)

Provided by Abbott

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