

Irregular heart rhythm may affect walking and strength in older adults

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When older people develop atrial fibrillation—the most common type of irregular heartbeat—it accelerates age-related declines in walking speed, strength, balance and other aspects of physical performance, according to new research in *Circulation: Arrhythmia and Electrophysiology*, an American Heart Association journal.

"Particularly in older adults, we need to be mindful that the effects of atrial fibrillation (AFib or AF) go beyond increasing the risk of heart failure and stroke. We learned from this study that older adults with AFib are especially vulnerable to losing strength, balance, gait speed and coordination," said Jared W. Magnani, M.D., Ms.C., lead author of the study and assistant professor of medicine at Boston University.

In [atrial fibrillation](#), the heart's two small upper chambers (atria) beat irregularly and too fast, which may increase the risk of stroke, [heart failure](#) and other conditions. The risk rises with age.

The researchers examined physical performance at ages 70, 74, 78, and 82 in 2,753 participants (52 percent women, 41 percent African American) in the Health, Aging, and Body Composition (Health ABC) study, a long-term investigation of aging-related health outcomes in Medicare recipients. At the beginning of the study, all of the [participants](#) were able to live independently.

Comparing four-year changes in physical performance between participants recently diagnosed with AFib and those without, researchers

found:

- overall participants' physical performance declined with age, as expected;
- participants diagnosed with AFib had a significantly greater decline in physical performance tests of balance, grip strength, how far a person could walk in two minutes, and the time needed to walk 400 meters (one lap around a standard track);
- overall, participants with AFib completed the 400 meter walk an average of 20 seconds slower than those without AFib;
- the excess decline in physical performance in people with AFib was equivalent to an extra four years of aging; and
- participants diagnosed with AFib declined more swiftly on each individual element of the test.

"Small declines in physical performance in older adults may have big consequences. The declines that we observed in participants with AFib are associated with increased frailty, which can result in loss of independence, decreased mobility, poorer quality of life, institutionalization and death," Magnani said.

Because the study enrolled only adults living independently, the results may not apply to [older adults](#) with greater cognitive or physical limitations. In addition, these results do not prove a direct cause-and-effect link between AFib and declining physical performance.

"There may be other factors, such as inflammation or accelerated muscle loss, that contribute to both increased risk of AFib and declining [physical performance](#)," Magnani said.

Provided by American Heart Association

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