

Older adults who take many medications have a higher risk for becoming frail

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As we age, we tend to develop a number of chronic health conditions and concerns. Often, managing health problems can mean that older adults may take many different medications. When older adults take five or more medicines (a scenario called "polypharmacy" by health experts), it can increase the risk for harmful side effects.

Interestingly, taking more than five medications is linked to frailty, perhaps because the medications interact to affect our ability to function well as we age. Frailty is a problem associated with aging. Someone who is frail can be weak, have less endurance, and be less able to function well. Frailty increases the risk for falls, disability, and even death.

Recently, a team of researchers examined information from a large German study of [older adults](#) called ESTHER (Epidemiological Study on Chances for Prevention, Early Detection, and Optimized Therapy of Chronic Diseases at Old Age) to learn how taking more than five medicines might affect frailty in older adults. The study was published in the *Journal of the American Geriatrics Society*.

The researchers looked at information from nearly 2,000 participants in the ESTHER study, which began in 2000 with nearly 10,000 participants. Follow-ups on participants were conducted after two, five, eight, and 11 years. People in the study were between 50- and 75-years-old when the study began.

At the eight-year follow-up, study physicians visited the participants at home for a geriatric assessment. During the visit, participants were asked to bring all the medications they took—both prescription and over-the-counter (OTC)—to assess the kinds and number of medications participants were taking. The researchers then separated participants into three groups:

1. People who took from 0 to 4 medicines (non-polypharmacy)
2. People who took 5 to 9 medicines (polypharmacy)
3. People who took 10 or more medicines (hyper-polypharmacy)

Two pharmacists individually reviewed all medications taken and excluded medicines and supplements that were not known to cause side effects.

After adjusting for differences in patient characteristics including illnesses, the researchers learned that people who were at risk for frailty, as well as people who were frail, were more likely to be in the polypharmacy or hyper-polypharmacy groups compared with people who were not frail. Researchers also discovered that people who took between 5 to 9 medicines were 1.5 times more likely to become frail within 3 years compared with people who took fewer than 5 medications.

People who took more than 10 medicines were twice as likely to become frail within three years as [people](#) who took less than five.

The researchers concluded that reducing multiple avoidable prescriptions for older adults could be a promising approach for lessening the risks for frailty.

If you're an older adult, or if you're caring someone who is older, it's important to understand that taking multiple medicines can cause interactions. The medicines can interact with each other and with the human body in harmful ways (by increasing negative [side effects](#) or decreasing desired effects, for example). As a result, the risk for falls, delirium, and frailty also increases.

Primary care providers are aware of these [negative](#)

[effects](#), but they cannot properly react if they are not fully informed about all the medicines you or an older adult in your care may be using. That's why it's extremely important to let your healthcare provider know about all medicines you or a person in your care is taking, as well as about OTC medicines and medicines prescribed by other healthcare providers. You can then evaluate whether one or more drugs might be changed or discontinued.

"In a perfect world, your physician would talk about your medications with a pharmacist and a geriatrician. This might help to reduce avoidable multiple drug prescriptions and possibly also lessen medication-induced risks for [frailty](#) and other negative effects of unnecessary, avoidable polypharmacy," said study co-author Kai-Uwe Saum, PhD, MPH.

More information: Kai-Uwe Saum et al, Is Polypharmacy Associated with Frailty in Older People? Results From the ESTHER Cohort Study, *Journal of the American Geriatrics Society* (2016).
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