

Alleviating the fear of falling

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Getting old isn't just about body aches and pains. As we get older, our risk of falling greatly increases. Old bones don't heal like young ones, and for senior citizens, falls are a leading cause of death.

But researchers at Tel Aviv University provide hopeful news from an unexpected source. Ritalin, used for managing Attention Deficit Disorder in hyperactive children, may have therapeutic benefits for seniors too. Older people who take methylphenidate (the generic name for Ritalin) may improve their cognitive abilities and their gait, cutting the risk for serious falls. This surprising finding was made by Prof. Jeffrey M. Hausdorff, a lecturer at the Sackler School of Medicine at Tel Aviv University, and his colleagues, and reported in the *Journal of the American Geriatrics Society*.

TAU's researchers are the first to investigate the power of Ritalin to prevent falling in the elderly. After only one dose of Ritalin, seniors walked with a steadier gait and performed better on a standard screening test for fall risk, Prof. Hausdorff found.

"Our study suggests that it may be possible to reduce the risk of falls in older adults by treating cognitive deficits associated with aging and disease," Prof. Hausdorff said. "This is consistent with a growing body of literature which has demonstrated that walking is not a simple, automated task, as it was once believed," he explains. "We've taken this idea a step further and shown that you can capitalize on this dependence on cognitive function and use it to reduce the risk of falls."

Knowing how to improve cognitive functioning could lead to fewer falls — and fewer related deaths — among America's senior population.

"Some have estimated that more than 50 percent of seniors who break a hip from a fall will die within the year," says Prof. Hausdorff. This is partly due to a vicious cycle fueled by a fear of falling and subsequent inactivity, causing elderly patients to spiral into further decline.

In the recent study, Prof. Hausdorff gave Ritalin to 26 healthy seniors who resided in independent living arrangements. They were assessed for fall risk before taking a single dose of Ritalin or placebo administered in a double blind fashion. The subjects were then asked to perform the "Timed Up and Go" test, during which they were asked to stand up from a chair, walk at a normal pace for about ten feet and then turn around, walk back and sit down. The longer it takes to accomplish the task, the greater the fall risk.

Those who took Ritalin performed the test quicker and had less variability in their "stride time," a common sign of instability, researchers found. Preliminary research on patients with Parkinson's disease also shows that Ritalin may help decrease the risk of falling even in the face of this common neurodegenerative disease.

While the notion of treating fall risk with a pill is "an intriguing concept," says Prof. Hausdorff, it is not likely to be a silver bullet solution, and it is still too early to recommend Ritalin on a wide scale basis. Additional studies are planned to more fully assess clinical utility, but it's likely that, for example, the drug would not be suitable for people who have certain types of heart disease.

What can seniors do to prevent a potentially catastrophic fall now?

"Remain active, that's been well-established," says Prof. Hausdorff. "Our findings indicate that it's also important to look at falls and relate them to one's cognitive functioning. It's important to strengthen your muscles,

but seniors need to strengthen their minds as well."

Source: American Friends of Tel Aviv University

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