

# Dance and virtual reality: A promising treatment for urinary incontinence in elderly women

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Virtual reality, dance and fun are not the first things that come to mind when we think of treating urinary incontinence in senior women. However, these concepts were the foundations of a promising study by Dr. Chantal Dumoulin, PhD, Canada Research Chair in Urogynaecological Health and Aging, a researcher at the Institut universitaire de gériatrie de Montréal, and an associate professor in the Physiotherapy Program of the Rehabilitation School at Université de Montréal, and her master's student, Miss Valérie Elliott.

Dr Eling D. de Bruin, Ph.D., researcher at the department of Health Sciences and Technology, Swiss federal Institute of Technology, Zurich, Switzerland collaborated in this study for his expertise in the use of exergame in geriatric rehabilitation. The results of their feasibility study were published in *Neurourology and Urodynamics*.

For the study, the researchers added a series of dance exercises via a video game console to a physiotherapy program for pelvic floor muscles. What were the results for the 24 participants? A greater decrease in daily [urine leakage](#) than for the usual program (improvement in effectiveness) as well as no dropouts from the program and a higher weekly participation rate (increase in compliance).

According to the researchers, fun is a recipe for success. "Compliance with the program is a key success factor: the more you practice, the

more you strengthen your pelvic floor muscles. Our challenge was to motivate women to show up each week. We quickly learned that the dance component was the part that the women found most fun and didn't want to miss. The socialization aspect shouldn't be ignored either: they laughed a lot as they danced!" explained a delighted Chantal Dumoulin.

The dance period also served as a concrete way for women to apply [pelvic floor muscle](#) exercises that are traditionally static. "Dancing gives women confidence, as they have to move their legs quickly to keep up with the choreography in the [video game](#) while controlling their urine. They now know they can contract their [pelvic floor](#) muscles when they perform any daily activity to prevent urine leakage. These exercises are therefore more functional."

Although a lot of research already employs different aspects of [virtual reality](#), this is the first time that it has been used to treat [urinary incontinence](#). This successful feasibility study opens the door to a randomized clinical trial.

Provided by University of Montreal

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