

Smart rollator motivates elderly to exercise more

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VTT Technical Research Centre of Finland and Orton are exploring the benefits and impacts of technology in motivating seniors to increase physical activity. This is being done in the new MoveRoll project, funded by the Academy of Finland, based on a smart rollator developed by VTT. The basic idea is that even a small increase in physical activity can have a major effect on the well-being of elderly.

The smart rollator—which can be used to monitor the well-being, physical condition and health of seniors based on the data it gathers—is a key part of the project. The smart aspects of the rollator are the added sensors and algorithms that measure a range of functions. A basic service concept is developed using data such as the distance covered and the daily or weekly activity goal. Feedback can be provided on the achievement of individual goals over longer time periods.

"The [service](#) concept takes into account the viewpoints of care staff, such as physiotherapists, and close relatives, in addition to the special needs of the [older people](#) concerned. This enables these people to react at an early stage if, for example, activity is far below target, or if there are changes in the daily rhythm, or the rollator is not used on a certain day," explains Professor Heikki Hurri of Orton.

"Individual, rehabilitative and timely services tailored for seniors help them to lead an unhindered and meaningful everyday life, and increase their sense of safety. Technological applications can also help them to continue leading active and independent lives, prevent hazardous

situations and postpone the need for more intensive services," says Principal Scientist Mark van Gils of VTT.

Seniors will test the smart rollator in everyday life

The concept will be tested in practice, for a year or so, by people using the rollator in [everyday life](#). The initial findings on the use of the smart rollator should be ready next autumn. This two-year project will end in late 2019.

Physical activity, which is important to people of all ages, is a prerequisite for the physical and mental health of older people in particular. For seniors, additional obstacles to [physical activity](#) and venturing outside can include memory disorders, fear of falling and, feeling weak after a spell of sickness. Immobility can have very serious consequences. These include loneliness and [mental health problems](#), which further undermine the well-being of seniors.

Provided by VTT Technical Research Centre of Finland

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