“Wake-up Time Activation”: Exercise therapy for prevention of falls in older adults

Federico Combi¹, Marta Viani², Maria Gabriella Cusella De Angelis¹ ², Renata Boratto¹, Antonio Tazzzi¹ ², Marisa Arpesella³, Lorenzo Spairani¹

¹ Department Exp. Medicine, Human Anatomy Unit, University of Pavia, Italy
² CRIAMS (Centro Interdip. di Ricerca Attività Motorie), University of Pavia, Italy
³ Department Preventive Medicine, Public Health Unit, University of Pavia, Italy

Physical inactivity is a major risk factor for developing coronary artery disease and stroke. It also contributes to other risk factors, including obesity, high blood pressure, a low level of HDL (“good”) cholesterol and diabetes. On the other way, physical activity doesn’t need to be strenuous to bring health benefits. What’s important is to include physical activity as part of a regular routine.

Thanks to our pluriannual experience in this field, we developed and here suggest a sequence of movements that allow individual recovery of balance and tensile properties of periarticular and intra-articular structures, tipically reduced after sleep; this causes morning stiffness and, day by day, a consistent reduction of the Range Of Motion (R.O.M.), mainly in the Vertebral Columna. Here we describe a method consisting in a progression of exercise to be performed starting within the bed, waking in the morning, from supine, continuing in a sitting position, and finally standing. In the last 5 years, more than 500 patients followed the Protocol showing benefits which are immediate, persistent and bring to back pain reduction, articular R.O.M. increase, recovery of balance and coordination.

Also older adults can gain significant health benefits with a moderate amount of daily physical activity. Anatomical and physiological aspects underlying postural reflection and balance deteriorate gradually with age not only because muscular aging, sarcopenia and arthosis but also for “ipocinesia”. We assume that subministration of this protocol will improve the elasticity and the reflection in older people, reducing the incidence of falls in this part of the population. In fact, literature data demonstrate an increment of falls in older within the first minutes after wake-up in the morning (not only due to anxiolytics or sleeping pills intake). Therefore we propose a randomized controlled trial and economic evaluation with the aim of improve mobility and reduce falls and related devastating consequences for elderly persons.

References