Miscellaneous

**Interventions Aiming at Balance Confidence Improvement in Older Adults: An Updated Review.**
This review describes interventions (n = 46) that have been tested to improve balance confidence in older community-dwelling persons. Exercise was the most frequent intervention (41/46) where several group or individual exercise types were applied and often combined, including strength, balance, endurance, flexibility and tai chi. Overall, no clear superiority of one type of exercise over the others was apparent, but the combination of strengthening and balance exercise was the most frequently used. Tai chi was effective in 4 of 8 interventions where it was used. Cognitive behavioral training and, to a lesser extent, guided relaxation and exercise imagery have shown benefits by improving balance confidence. Interventions that targeted elderly persons reporting poor balance confidence and/or those at risk for falls seemed more likely to be beneficial.

**Injury Hospitalization as a Marker for Emergency Medical Services use in Elderly Patients.**
This observational study analyzed a retrospective cohort of U.S. Medicare patients (n = 30,655; ≥67 years old) admitted to hospitals for a serious injury and survived to hospital discharge. The numbers of EMS transports and the total EMS costs were compared one year before and one year following the index hospitalization. Rides were also classified as emergent and nonemergent in 69% of cases. Authors found that the mean, unadjusted rate of rides per person-year went from 0.52 the year before the index hospitalization to 0.91 the year after. Annual mean EMS costs rose 74% per person following the injury hospitalization. The greatest increase was seen in non-emergent EMS use, increasing from 35% of classifiable EMS uses before injury to 50% after. Non-emergent use accounted for 67% of the increase in total EMS use after injury. More than 22% of the subsequent year’s services occurred in the first 30 days after the index hospitalization discharge. Institutionalization in a skilled nursing or rehabilitation facility either before or after injury was strongly associated with the need for EMS care.

**Evaluation of a health service delivery intervention to promote falls prevention in older people across the care continuum.**
This paper describes the method and results of the implementation and evaluation of a state-wide workforce enhancement strategy to promote the uptake of evidence-based falls prevention activities for older people. Six Falls Safety Officers (FSOs) were appointed to implement a 1-year pilot of strategies aimed at enhancing workforce capacity to deliver a coordinated approach to falls prevention across the care continuum. The project was independently evaluated for process, impact and outcome. Both quantitative and qualitative data were extracted from records maintained by the FSOs for the evaluation and additional data were obtained from interviews with key stakeholders. Results
indicate that considerable progress was achieved towards the project's objectives, including the wide dissemination of information and resources, as well as the establishment of working groups to continue falls prevention planning and implementation. Barriers and facilitators to the project's implementation were identified.

**An Intergenerational Approach in the Promotion of Balance and Strength for Fall Prevention - A Mini-Review.**
The risk of sustaining a fall is particularly high in children and seniors; furthermore, there is evidence that balance and resistance training are beneficial for both children and seniors. Authors suggest an intergenerational intervention approach to enhance the effectiveness of these training programs by improving compliance and increasing motivation of children and seniors exercising together.

**Hip protectors for preventing hip fractures in older people.**
This update includes 16 studies involving over 16,000 older people living in nursing care facilities or older adults living at home. Present evidence shows that there is no benefit from hip protectors for the majority of older adults living at home. Making hip protectors available to frail, older people in nursing care facilities may reduce the risk of fractures. The size of any reduction in risk seems to be much less than was suggested by earlier studies. More research and development is needed to make and test hip protectors that are more comfortable to wear. Poor acceptance and adherence by older people offered hip protectors have been key factors contributing to continuing uncertainty. [http://onlinelibrary.wiley.com/o/cochrane/clsystsrev/articles/CD001255/pdf_fs.html](http://onlinelibrary.wiley.com/o/cochrane/clsystsrev/articles/CD001255/pdf_fs.html)

**Participatory action research with older adults: Key principles in practice.**
This article provides a review of participatory action research (PAR) studies in gerontology and their implications. Authors conclude that by employing PAR, researchers may expand the relevance of gerontology for studying and addressing not only the complex health and social problems faced by elders but also their unique strengths and the invaluable knowledge they can offer as co-researchers. [http://gerontologist.oxfordjournals.org/content/49/5/651.full.pdf+html](http://gerontologist.oxfordjournals.org/content/49/5/651.full.pdf+html)

**The provision of walking aids to the overtly aggressive older adult who is a high risk of falls: a careful balancing act.**
The author of this letter discusses the challenge of reducing the risk of falls in high-risk, older adult psychiatric inpatients with respect to the prescription of walking aids. Having aggressive older adult patients use walking aids may pose a risk to health care workers and other patients as they may use the device as a weapon of attack. The author recommends that the physiotherapist work with the clinical team to come up with the safest option.
The health-related quality of life and cost implications of falls in elderly women. Iglesias CP, Manca A, Torgerson DJ. Osteoporos Int 2009 Jun; 20(6):869-78. Authors used an opportunistic sample of women to investigated the impact on health-related quality of life (HRQoL) associated with falls, fractures and fear of falling as well as the financial costs of falls and fractures. It was found that the lowest HRQoL was associated with a fear of falling rather than with actual falls or with the health sequelae of falls. Authors suggest that interventions such as exercise programs should measure their impact on participants’ HRQoL in addition to the reduction of falls related injuries.

Preventing falls in older adults: New interventions to promote more effective change-in-support balance reactions. Maki BE et al. Journal of Electromyography and Kinesiology 2008; 18(2):243–254. Four new interventions aimed at reducing falls by enhancing “change-in-support” reactions are reviewed in this article. The interventions include a balance training apparatus which causes the trainee to lose and then re-establish balance, balance-enhancing shoe inserts which causes the wearer to regain sensation in certain parts of the foot lost due to age, safer walkers which allow for lateral stepping, and a handrail cuing system which lights up when approached by an individual. A description of each intervention is provided along with results of testing for the devices.

Hip protectors and prevention of hip fractures in older persons. - Holzer G. Holzer LA. Geriatrics 2007; 62(18):15-20. According to this article, using evidence from various biomechanical studies, the main reason for hip fractures amongst older patients with osteoporosis is falls. Hip protectors are proven prevention mechanisms for hip fractures, yet usage of them by older persons is inadequate. The study argues for an increased need for education and prevention awareness as well as an enhancement in design and wearing comfort of these devices to improve adherence to the usage of hip protectors.

How Effective Are Bathtub Grab Bars for Stopping a Fall When You Lose Your Balance? Canada Mortgage and Housing Corporation. Research Highlights; September, 2007; Socio-economic Series 07-016. Younger (n = 21) adults and older (n= 60) adults participated in bathtub entering and exiting exercises in a research laboratory featuring mock bathrooms with moving platforms and completed the Bath Grab Bar Effectiveness During Balance Perturbation questionnaire. In total, 1,419 bathtub entries and exits with platform activation were recorded (1,040 with older adults and 379 with younger adults). Younger adults used the bars to regain their balance in only 14.4% of trials where bars were present. Older adults used bars to regain their balance in 49.7% of trials where bars were present and their behaviour also changed once they experienced balance loss (increased use of grab bars and increased hesitancy). Most of the participants (57.1% of younger adults and 78.3% of older adults) preferred a grab bar configuration to the No Bar configuration. Participants used the vertical bar on the side wall most frequently to regain their balance during bathtub transfer. The study also showed that a vertical bar on the side wall is
more effective in helping individuals to regain their balance as they are getting in/out of the bathtub than those that do not include a bar on the side wall.