

FALLING? PREVENTION PAYS!

# In Balance



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Sport & Physical Activity

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## IN BALANCE

# Falling? Prevention pays!

*Falling is becoming an ever increasing problem for the health care sector. One in three elderly people living at home and half of those living in nursing homes fall at least once a year. This comes down to more than 1 million cases annually, and GP, physiotherapy, hospital treatment and operation costs already amount to more than € 600 million a year in the Netherlands. Effective prevention can greatly benefit both the health care sector and the elderly themselves.*

### CONSEQUENCES OF FALLING

A fall often has serious personal consequences, such as broken bones, a fear of walking and a feeling of helplessness. Elderly people who have fallen more than once become afraid and uncertain. This feeling affects the whole perception of their health. The fear of falling alone is enough to make people less mobile and less physically fit.

As people get older, the likelihood of falling increases. Many elderly people struggle with osteoporosis, which causes bones to break more easily. One cause of falling is that their sense of balance, muscle strength and coordination deteriorate. This occurs fastest in those who are less active (voluntarily or otherwise).

### LACK OF EXERCISE

The most important cause of falling is a lack of exercise. An analysis of the current situation regarding the behaviour and factors that relate to exercise has shown that the elderly are increasingly less inclined to exercise. A key factor in this is their declining confidence in being able to do what is needed to carry out a task (self-efficacy) and the related intrinsic or inner motivation. This is caused by increasing physical limitations and a fear of injury. In "Ouderenbeleid in het perspectief van de vergrijzing" [Policy on the Elderly in the context of Ageing] (Ministry of VWS, 2005) and "Let op let-sels" [Be aware of Injury] (RIVM, 2008), fall prevention among the elderly is cited as an effective intervention that deserves a place in policy on the elderly.



### EXERCISE PREVENTS FALLING

Across the globe, research is being conducted into interventions that can limit the number of falls among the elderly. The cause of falling is complex, as many factors play a role. However, it is becoming increasingly clear that prevention options need to be sought not only in making the surroundings safer or in individual health problems, but also in strengthening the personal motor-related competencies of the target group. Exercise can prevent falling.

Developed by the Netherlands Institute for Sport and Physical Activity (NISB), the In Balance programme is primarily intended for people with balance issues. Good balance prevents falling and has a positive impact on the welfare and health of the elderly. Every elderly person, also those who are good walkers, can benefit from this course.



Experience has taught that the over-70s benefit the most. Around 10 years ago, physical training courses reduced falls by of 20%, but the current figure is around 50%. Research carried out by the VU University Amsterdam has shown that the In Balance programme has resulted in a very promising 61% reduction in falls.

### FALL PREVENTION AND MOTOR TRAINING

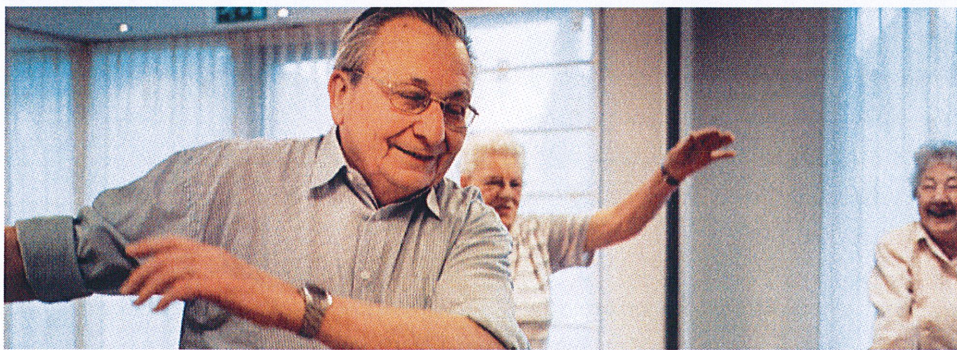
A fall is caused by a combination of factors: external (safety in the surroundings) and internal (physical and mental condition). Twenty years ago, the focus was on making the surroundings safer. Nowadays, it is clear that intrinsic factors in particular make the difference.

On average, motor-related problems that negatively impact mobility occur at around 70 years of age, which is why it is advisable to initiate preventive programmes for people around this age. People can fall just like that. All it takes is a moment of carelessness, a loose tile, an unfitted carpet, a poorly constructed staircase or a moment of dizziness. People who fall more frequently develop a fear of moving and exercise less often. This is unfortunate, because exercise is a key factor in preventing a multitude of symptoms of old age. The In Balance programme addresses this.



## IN BALANCE

*In Balance is a training programme that combines the best of Eastern and Western approaches. This is supplemented with information that provides more personal insight, increasing the motivation to exercise. The programme is accessible ('round the corner') and affordable. Exercise is done in groups to promote social interaction as well.*



### THE SET-UP

Every session comprises practical exercises and information. This combination makes the programme unique and convenient for participants, for whom the very act of exercising is often already a major step. There is a short introductory programme of 4 sessions, as well as a longer training programme of 16 sessions. The subjects covered are:

#### *Information*

- Exercise and general health;
- An active lifestyle; simple tips to apply in daily life;
- Causes of falling;
- Causes of a decreased sense of balance;
- What causes can be influenced?;
- How great is the likelihood of falling?

#### *Tests*

- Active living;
- Safety in the home;
- A feeling of balance;
- The risk of falling.

#### *Practical*

- Practical exercise programme for general fitness;
- Exercise for balance, relaxation and inner peace;
- Exercise to strengthen and loosen up the feet, ankles and legs;
- Getting out of a chair, getting out of bed or getting up from the ground;
- Tips for walking;
- Walking with a stick or rollator.



## TAI CHI

Recent studies have shown that Tai Chi can play a key role, as it is the only kind of training that focuses on balance. In 1996, this had already resulted in a 47.5% reduction in falls, without the addition of any other measures. This is why Tai Chi has been incorporated into the In Balance programme.

Tai Chi is a traditional Chinese form of exercise that includes elements of relaxation. It teaches you to feel what you are doing and to seek balance. With Tai Chi, you acquire an awareness of your own body. For people over 60, it is often difficult to learn the traditional form of Tai Chi because the complex movements demand a high level of physical coordination. This is why it is primarily the functional elements of Tai Chi relating to fall training that have been included.

## TESTS

The In Balance programme has been improved in recent years based on practical experience. One of the new elements added is a series of simple tests, which provides for both individual and group-related progress. This has resulted in a programme of adult information and training, aimed at senior citizens with (potentially early) problems with falling or general motor-related limitations.

## LOCAL IMPLEMENTATION

Fall prevention and fall reduction programmes should be a structural part of the health care system, with funding from health care insurance and follow-up funding under the Social Support Act (Wmo) and/or the Public Health Act (Wpg). Municipal councils could play a supervisory role in this and bring the insurance companies







on board. Implementation would then be the responsibility of welfare organisations, health care centres, homecare, the outpatients' department for people who have fallen, and the Municipal Health Service. GPs and physiotherapists could also play a key role in tracking elderly people susceptible to falling and referring them on. To create an efficient method of working, organisations will have to create a fall prevention network, preferably under the supervision of the municipal council.

### RECOGNITION

In Balance is recognised by the National Institute for Public Health and the Environment (RIVM) as "theoretically well-substantiated". It is a thorough intervention primarily focused on changing individual behaviour (and its determining factors). In Balance has already been awarded the Preffiprijs

(an award for professionals who are involved in the development and implementation of health promotion interventions) and was project of the month in February 2008.

### TRAINING TO BECOME AN IN BALANCE TRAINER/INSTRUCTOR

To become an In Balance instructor, you have to be a certified trainer for the elderly (MBvO guide, sport and exercise guide for senior citizens, remedial therapist, physiotherapist). The trainer/instructor syllabus comprises a 21-hour training course, combined with 18 hours of self-study. The KNGR has accredited the course with 36 points. Accreditation for remedial therapists is being considered.

### INFORMATIE

More information on the In Balance programme can be found on the NISB website: [www.nisb.nl/inbalans](http://www.nisb.nl/inbalans) and information on becoming a trainer/instructor at [www.nisb.nl/consult](http://www.nisb.nl/consult). The programme has a course and exercise book for participants, a teachers' handbook plus a video for supervisors.

Local organisers, initiators and supporters can get more information about the project from the Netherlands Institute for Sport and Physical Activity by calling +31(0)318-49 09 00 or mailing [info@nisb.nl](mailto:info@nisb.nl).



**NISB** Netherlands Institute for Sport & Physical Activity

The NISB is the Netherlands knowledge and innovation institute. The NISB promotes sport and physical activities to contribute to health, participation and well-being.

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