

**AKE 2018**



# **Stay Up!**

**Information about fall prevention for you and your loved ones**

# AKE 2018

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Stay Up! -guide free to download from [www.psshp.fi/rfpnetwork](http://www.psshp.fi/rfpnetwork) and [www.psshp.fi/ake](http://www.psshp.fi/ake)

Alueellinen kaatumisten ehkäisyverkosto (AKE) - The Regional Fall Prevention Network (RFPN)

From Finnish Pysytään pystyssä –guide translated by RFPN. Proofreading by Tarja Tervo-Heikkinen & Anne Vaajoki

# Reduce the risk of falls

## - Act today!



The contents of this guide are based on the latest evidence-based information available and provide guidelines for the prevention of falls in adults.

Guide has been compiled in 2014 and updated in 2018.

**Make sure of the following things.**

**Ask for help if necessary:**

- ♦ Train your balance and muscular strength regularly.
- ♦ Maintain your mobility and functional ability.
- ♦ Take care of your health and good self-care of any illness.
- ♦ Use the medications prescribed for you as agreed.
- ♦ Ensure regular monitoring of your medication.
- ♦ Take adequate and healthy nutrition and drink daily.
- ♦ Wear eyeglasses and a hearing aid if you need them.
- ♦ Learn the proper use of assistive and safety devices.
- ♦ Remove any danger from your home environment.
- ♦ Tell your nurse or doctor if you have problems with balance, dizziness, or if you have a fall.

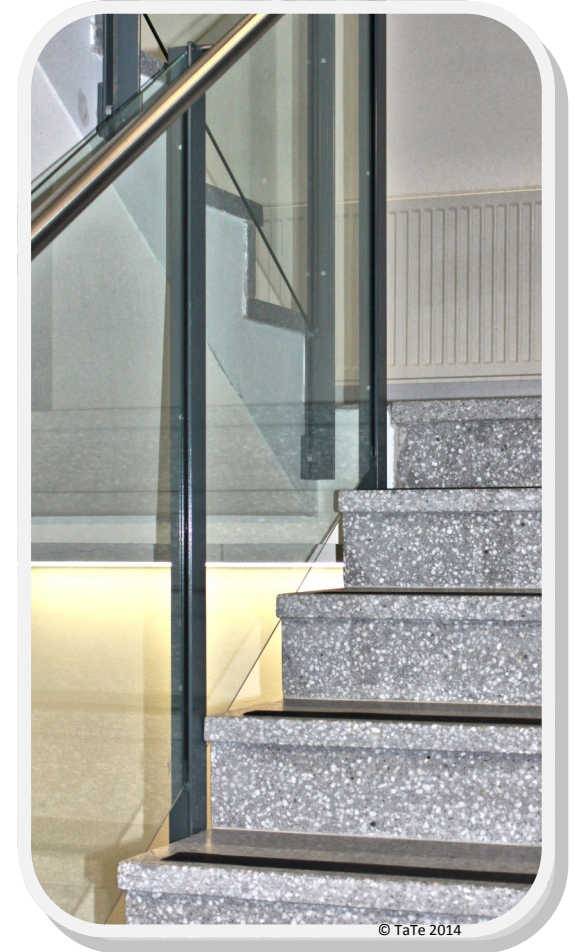
## A functional and safe home environment

Look around your home. Appropriate accessibility increases security. Here are some tips.

- ♦ Avoid crowding the rooms.
- ♦ Keep corridors and the entrance free of clutter.
- ♦ Sharp edges and low furniture are a risk for injury - rounded corners and higher furniture are safe.
- ♦ Consider removing or lowering thresholds.
- ♦ A safe mat or rug stays in place, with no curled-up edges.
- ♦ Non-slip pads can be placed under rugs. The rug corners will not curl when you use corner angles.
- ♦ A floor that is dry, unwaxed, and clean is the safest.
- ♦ Dusty floors are slippery.

Handrails provide the best support for going up and down stairs. The handrail should be of appropriate diameter and placed at the right height so you get a good grip.

Non-slip stair treads are suitable for indoor and outdoor use. They can be installed on existing stairs.



You can put a basket for the mail below the mail drop. It's a good idea to have a bench or chair near the front door where you can safely put and take off your shoes.

Non-slip socks or appropriate indoor footwear help you to stay up, even if the floor is a bit slippery.



## Outdoor mobility

- ♦ Follow the same safety principles as indoors.
- ♦ Observe the condition of the routes you use.
- ♦ If possible, ensure adequate lighting and gritting.
- ♦ Choose footwear according to weather and road conditions. Use anti-slip shoe grips.

As the weather changes, always check the condition of mobility aids (ice pick for walking stick etc.). Always select sturdy footwear. Use anti-slip grips or studded shoes in slippery conditions.

Please note that the studs can be slippery inside!



## Lighting and vision

As we age, visual acuity, the ability to distinguish between different colours and shades depth of vision deteriorate. Besides vision, adequate lighting is a basic requirement for safe mobility. General lighting should therefore be uniform and non-glare.

Night lights help you see where you are going even in low light conditions. You can use a timer or motion sensors to set the lights.

Clear colour differences make it easier to perceive different surfaces, such as walls, floors, and furniture.

Bifocals may cause problems when going up and down stairs and assessing height differences. Have your eyes checked regularly and get new glasses when necessary. Keep your glasses clean and in a place where they are easy to find.

Choose footwear according to weather and road conditions.

Shoes with studs or removable anti-slip grips are useful in the winter.

## Bathroom and toilet

Water and detergents make floors slippery. Using materials such as roughened tiles improves security in the bathroom and toilet. Non-slip mats on the floor or in the tub work in the same way. There are also coating agents that make the wet floor non-slip (available e.g. from hardware stores).

Low rubber thresholds and different types of grab rails increase safety. They are easy to install in older buildings as well.

A sturdy shower chair of the right size facilitates taking a shower. Keep detergents within reach, for example in a basket mounted on the wall.

Handrails and low steps make it easier to climb up on the sauna bench. A sturdy guard should be in place by the heater to prevent accidents. If possible, you should never go to the sauna alone.

### **Pictures on the right:**

Various types of grab rails available for the toilet and bathroom.

## Other spaces in the home

Make sure that the household appliances, implements and food items you need are readily accessible. Try to avoid using the uppermost shelves. You may experience a sudden dizzy spell as you climb up. If, you do need to climb up, use a sturdy stepladder with handles.

Get rid of unnecessary furniture and slippery rugs around the bed. Having a bed that is the right height makes getting in and out of bed safer.



## Prevent falls with good nutrition

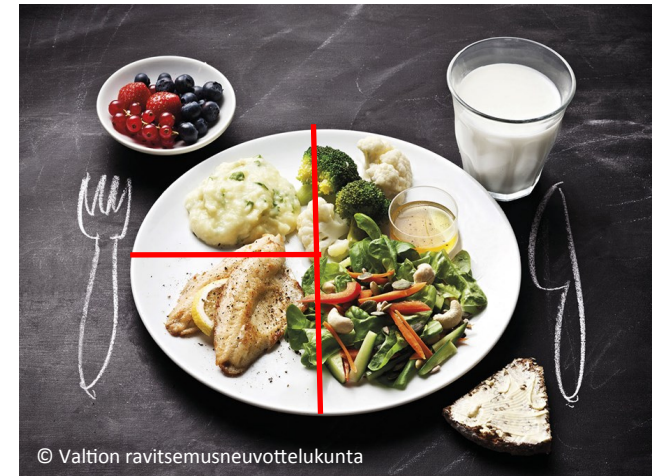
Good muscle strength is the key to optimal muscle function and balance. Muscles need energy and protein for their optimal function! Low protein intake is associated with muscle wasting and increases the risk of infections.

Meat, poultry, fish, dairy products and pulses (peas, beans, peanuts, soybean) are good sources of protein.

If you are losing weight unintentionally your energy intake is too low! Weigh yourself at least once a month. Increase portion size or the number of meals if needed. Regular meals help you get enough energy and keep your blood glucose at optimal levels.

A total of five meals/snacks per day is suitable for most people. Pictured on right (top) is the **plate model**, which is an example of a healthy meal for everybody. Beneath it is a **plate model for older people**. We recommend this model if you have lost weight or if you are able to eat only small portions at a time.

**Plate model.** One half of the plate is filled with vegetables, one quarter with fish, meat or pulses and one quarter with potatoes, rice or pasta.



**Plate model for older people.** Increase the proportion of the main course shown in the model. In this model one third of the plate is filled with vegetables, one third with fish, meat or pulses and one third with potatoes, rice or pasta.



## Eat daily

- 4-5 times (meals + snacks)
- 1-2 warm meals. Drink a glass of milk, sour milk, soy milk etc. and eat 1-2 slices of whole grain bread.
- Yoghurt or other sour milk products, and cheese or whole meat cold cut with bread as part of breakfast.
- Altogether six (6) portions of whole grain products, e.g. a bowl of porridge and 3-4 slices of bread.
- If you have lost weight unintentionally add small snacks in between your meals. Increase also the amount of fat: use more margarine (60-80 %) on bread, with porridge, rice, pasta and cooked vegetables.
- You can use also oil e.g. in porridge. Or more oil based salad dressing in salad.

Adapt the meal pattern to your own daily activities. Avoid overnight fasting for 11 hours.





## Stay hydrated

The sensations of thirst becomes weaker with increasing age. The percentage of water in the body falls and dehydration develops faster than in younger people. Dehydration lowers the blood pressure, which can in turn cause falls. An adequate fluid intake prevents constipation as well.

Drink an extra glass of water every time you take your medicines and with meals and snacks. Increase the amount of fluids when the temperature outside gets warmer and every time you go to the sauna or exercise more. Drink fluids regularly – don't wait until you're thirsty! When you become thirsty your body is already slightly dehydrated.

## Milk products - a good source of calcium!

You get the recommended amount of calcium if you have 3-4 glasses (5-6 dl) of milk, sour milk, yoghurt etc. and 2-3 slices of cheese. If dairy products or calcium-enriched soy, oat or rice-based products are not a part of your diet, a calcium supplement is recommended.

## Vitamin D and calcium - for strong bones!

Vitamin D is also beneficial for the muscles. Adequate intake of both decreases falls and bone fractures.

A daily vitamin D supplement of 20 µg is recommended for persons 75 years and over. A smaller amount (10 µg) could be enough if you use D-enriched milk products, margarine and fish 2-3 times a week.

If you consume less than recommended amounts of vitamin D-enriched milk products, margarine and fish, a vitamin D supplement of 10 µg/day is recommended from October to March. If you have had individual recommendation from doctor you should follow it.

Drink 5-8 glasses of different types of fluids on a daily basis.

**Always include water in your daily fluid intake.**



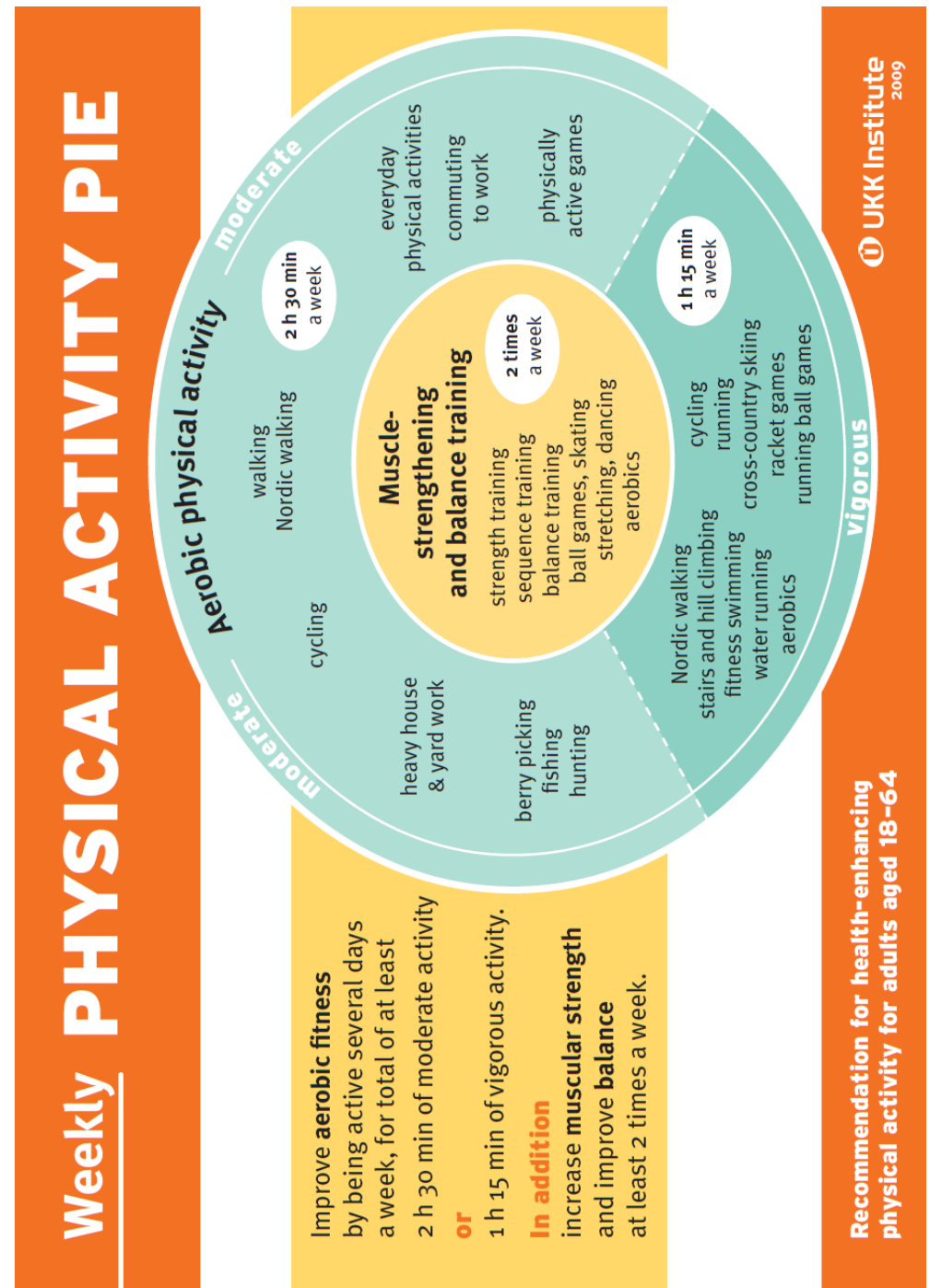
## Physical activity / exercise

Physical activity (exercise) gives you the energy you need to cope with activities of daily living. It is also a source of positive experiences, keep your mind sharp and refreshes the body. It is important that you find a suitable and enjoyable form of exercise that you can practice on a daily basis.

The figure describes the physical activity recommendation for people age 65 years and older. The weekly physical activity pie includes examples of indoor and outdoor activities. The recommendation emphasizes the significance of endurance and muscles strength fitness, and balance and flexibility-related exercise, all of which support mobility and prevention of falls.

Select the exercise forms that are best suited for you. Even a minor increase in daily physical activities will improve your functional ability.

Physical activity can also slow down and prevent diseases, such as type 2 diabetes, osteoporosis and osteoarthritis. Exercise can also alleviate pain and fear of falling.



## At least 30 minutes of physical activity daily

You should do moderate-intensity aerobic exercise, such as brisk walking, at least 5 days a week. Aim at a minimum of 30 minutes of physical activity every day. Aerobic activity can be performed in episodes of at least 10 minutes.

Muscle-strengthening and balance exercise can be done at home or in the gym.

Avoid long-term sitting.

## Balance and muscle-strength training

You can incorporate training in your daily activities, such as doing the dishes, dusting or going up and down stairs.

You should start doing the exercises based on your own fitness level. The recommended number of repetitions is 10-20. Do three sets of repetitions with a short rest between sets. You can also use small ankle weights.



Stand with your back straight, with the kitchen sink or the like for support.

Alternately, raise your right and left knee.

Repeat 10 – 20 times with both legs.

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**Do three sets.**

Raise one leg straight behind you.  
Repeat, alternating both legs.







**Pictures above:** Sit on a chair, lean forward and stand up.

If necessary, use your hands for gentle support. Stand with your back straight for a moment and sit down again.

**Repeat 10 – 20 times.**

**Do three sets of repetitions.**

**Below left:** Stand with your back straight, with the kitchen sink of the like for support. Get up on your toes and then down on your heels.

**Below right:** Sit upright on a chair. Straighten out one knee at a time pulling the foot towards you.



## Assistive devices

Use appropriate assistive devices to help you with mobility. Consult your local healthcare centre on assistive devices and home modifications.

## Drugs and the risk of falling

Many diseases, symptoms and drugs increase the risk of falls. Appropriate treatment of the disease or symptom is the best way to reduce the risk of falls. Insufficient intake of fluids together with diuretics or antihypertensive drugs increases the risk of falls.

Always talk to your doctor about changes in your medication. Do not change your medication by your self.



Use a pill dispenser to help you with your medication. Always keep an up-

## This is how you can help yourself and those helping you:

1. Know your medications: name, dose, intake time and indication.
2. Use medications as prescribed.
3. Ask for a medication card from the health centre, hospital or pharmacy. Check and fill in the details or fill in a separate card (e.g. at [www.laakekortti.fi](http://www.laakekortti.fi)). It is important to record all the medicines you are using on the card for treatment monitoring, planning, and detection of drug interactions. Also drugs prescribed by a private doctor, OTC drugs, herbals, and natural remedies.
4. Report any symptoms or sensations to your doctor, nurse or pharmacist. Symptoms due to medication that predispose to falls include dizziness or feeling faint when you stand up, general fatigue, drowsiness, tremor, muscle rigidity or feeling shaky.
5. Insist that your medications are reviewed at least once a year and always if there are changes in your health or medication.

## Smoking and fall prevention

The risk of falls is increased by poor general condition. Besides lack of physical activity, smoking may be the reason behind poor general condition. When under stress, the body can not carry enough oxygen to the muscles.

Smoking increases the risks of cerebrovascular disorders and osteoporosis, which is why the risk of falls and fractures increases if you are the smoker.



## Alcohol and fall prevention

Our body functions change as we age, even if our health is otherwise good. The effects of alcohol become more pronounced, because the body's water content decreases and metabolism slows down. Alcohol consumption can become harmful even if the amount of alcohol used remains unchanged.

Aging enhances the intoxicating effects of alcohol. The risk of falls or other accidents is increased by just one glass of beer or wine. Three doses increase the risk of accidents significantly.

Alcohol weakens balance, alertness and reactions. Similar effects are caused by some drugs, and especially by alcohol and drugs when taken together. The interaction can be unexpected and very serious.

Many drugs remain in the body for a long time, especially in the elderly. Elimination of one portion of alcohol from the body takes two hours.



## More information from internet

- ♦ <http://www.turvallinenkoti.net> (only in Finnish)
- ♦ <http://www.kotitapaturma.fi/en/>
- ♦ <https://www.thl.fi/en/web/injury-prevention>
- ♦ <http://www.ikainstituutti.fi/in+english/>
- ♦ <https://laakekortti.fi/Frontpage.aspx?l=en>
- ♦ <http://www.ukkinstituutti.fi/en/>
- ♦ <http://www.ikateknologiakeskus.fi/in-english/>
- ♦ <http://www.valli.fi/in-english/>
- ♦ <https://www.evira.fi/en/foodstuff/healthy-diet/>

## Current Care Guidelines and Physical Activity Recommendation

- ♦ <http://www.kaypahoito.fi/web/english/home>

Current Care Guidelines are written in Finnish and a few are published in English. Abstracts in English can be found in the majority of the guidelines. For example Hip fracture, Osteoporosis, and Tobacco and nicotine dependency, prevention and treatment.

All internet links have been verified in 30.7.2018.

## References

- ♦ **Epilepsialiitto**. Turvallinen asuminen ja epilepsia.
- ♦ **Joanna Briggs Institute**. 2010. Interventiot iäkkäiden aikuispotilaiden kaatumistapahtumien vähentämiseksi. Best Practice 14 (15). Käännös Suomen JBI yhteistyökeskus: Korhonen Teija, Holopainen Arja ja Pajala Satu. Saatavilla: <http://hotus.fi/joanna-briggs-institute/suomenkieliset-jbi-suositukset>.
- ♦ **Muistiliitto**. 2010. Kiinni arjessa.
- ♦ **Pajala S**. 2012. Iäkkäiden kaatumisten ehkäisy. Terveiden ja hyvinvoinnin laitos, opas 16.
- ♦ **STM**. 2005. Arkea helpottavat välineet, opas ikäihmisille. Oppaita 25.
- ♦ **Verma I & Hätönen J**. 2011. Ikäihmiset, asuminen ja teknologia. Käkäte-raportteja 2/2011.
- ♦ **Fimea**. [http://www.fimea.fi/kehittaminen/laakeinformaation\\_kehittaminen/iakkaiden\\_laakityksen\\_tietokanta](http://www.fimea.fi/kehittaminen/laakeinformaation_kehittaminen/iakkaiden_laakityksen_tietokanta) (also available in English: [http://www.fimea.fi/web/en/databases\\_and\\_registeries/medicines\\_information/database\\_of\\_medication\\_for\\_the\\_elderly](http://www.fimea.fi/web/en/databases_and_registeries/medicines_information/database_of_medication_for_the_elderly))

## Pictures of this booklet:

- ♦ Juha Haatainen, Tarja Tervo-Heikkinen (TaTe), KYS-photography
- ♦ **Maito ja Terveys**, <http://maitojaterveys.multiedition.fi/www/fi/index.php>, **ProKala**, <http://www.prokala.fi/pro-kala.html>, **UKK-instituutti**, <http://www.ukkinstituutti.fi> ja **Valtion ravitsemusneuvottelukunta (VRN)**, [www.evira.fi](http://www.evira.fi) sekä **Pixabay.com**

# The Regional Fall Prevention Network (AKE) 2018

**Stay Up! -guide has made by RFPNetwork member organizations. Several experts from various fields have participated in this guide. Nursing Research Foundation has supported the guide.**

RFPNetwork member organizations in 2018 [www.psshp.fi/rfpnetwork](http://www.psshp.fi/rfpnetwork)

- Central Finland Health Care District <http://www.ksshp.fi/en-US>
- City of Kuopio <https://www.kuopio.fi/en/etusivu>
- Etelä-Savon sosiaali- ja terveystoiminta, ESSOTE <https://www.essote.fi/in-english/>
- Itä-Savon sairaanhoitopiirin kuntayhtymä, SOSTERI <https://www.sosteri.fi/in-english/>
- Kuopio University Hospital <https://www.psshp.fi/web/en>
- Kysteri <https://www.psshp.fi/web/kysteri/in-english>
- Municipality of Siilinjärvi <http://www.siilinjärvi.fi/kunta/en/index.php>
- Savo Consortium for Education <https://www.sakky.fi/kuntayhtyma/english>
- Savonia University of Applied Sciences <http://portal.savonia.fi/amk/en>
- SiunSOTE <http://www.siunsote.fi/>
- University of Eastern Finland <http://www.uef.fi/en/etusivu>
- Ylä-Savon SOTE Joint Municipal Authority <http://www.ylasavonsote.fi/english/>



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