



REDUCE SEDENTARY TIME – GET HEALTHIER!

National recommendations to reduce sedentary time

REDUCE SEDENTARY TIME – GET HEALTHIER!

National recommendations to reduce sedentary time



■ MINISTRY OF SOCIAL AFFAIRS AND HEALTH
Finland

REDUCE SEDENTARY TIME – GET HEALTHIER!
NATIONAL RECOMMENDATIONS TO REDUCE SEDENTARY TIME

ISBN 978-952-00-3740-6 (PDF)

URN:ISBN:978-952-00-3740-6

<http://urn.fi/URN:ISBN:978-952-00-3740-6>

www.stm.fi/en/publications

Illustration: Henna Rynnänen, Studio Spotnik

Publisher: Ministry of Social Affairs and Health, Finland

Layout: Government Administration Department, publications, Anja Järvinen

Contents

SUMMARY	5
TIIVISTELMÄ	7
SAMMANDRAG.....	9
FOREWORD.....	11
1 SIT LESS AND MOVE MORE – BEGIN IN CHILDHOOD, CONTINUE THROUGHOUT LIFE!.....	13
2 CHILDREN AND YOUNG PEOPLE: "GET UP OFTEN!"	15
2.1 Recommendations for children and young people.....	16
2.2 Recommendations for parents	17
2.3 Recommendations for instructors and teachers.....	21
2.4 Recommendations for day cares, schools and municipalities	22
3 STUDENTS AND WORKING-AGE PEOPLE: "SIT LESS DURING THE DAY!"	23
3.1 Recommendations for students and working-age people	24
3.2 Recommendations for study and work communities.....	26
4 ELDERLY OR THOSE WITH LIMITED FUNCTIONAL CAPACITY: "MOVE MORE EVERY DAY ACCORDING TO YOUR OWN CAPABILITIES!"	30
4.1 Recommendations for the elderly with normal functional capability.....	32
4.2 Recommendations for the elderly with limited functional abilities.....	35
4.3 Recommendations for municipalities and for the organisers of care services for elderly or those with limited functional capacity	36
5 GENERAL RECOMMENDATIONS FOR DIFFERENT ACTORS	37
Essential literature about sitting and health risks and recommendations for physical activity:.....	38
Essential recommendations for physical activity:.....	40



**Sitting has become a way of life
– it is time to stand up!**

Summary

Work has become physically lighter in our society and our lifestyle involves a great deal of sitting. Even though Finns exercise very regularly, they spend most the day sitting in day care, school, work, institutions, vehicles and at home. Sitting or remaining stationary at length has negative impacts on cardiovascular and musculoskeletal systems. Therefore, people of all ages should avoid excessive sitting, walk or cycle short distances or stand in public transport, and try to maintain physically active ways of working.

For children, moving is natural and supports growth and development. Too much sitting and a lack of exercise weaken the well-being of children and young people in many ways. The society and parents should create environments that support the activity and learning of children and young people. Children and young people should be introduced to an active way of living, which will continue throughout their lives. Parents can encourage their children to play and spend time outdoors, walk and cycle their way to school and hobbies, take breaks from sitting in front of a screen and to be active at least one hour a day. Children's instructors in day care and teachers at school should offer children physical activities and physically active environments and remove unnecessary limitations to exercise.

Most adults do physically non-strenuous work, sit their way to work and also spend a lot of their free time sitting. People in school and at work should change their everyday lives in order to avoid sitting. It is good to walk or cycle short distances to hobbies, school, work or shops, take the stairs instead of the elevator and change positions to avoid sitting. Schools and offices can introduce active work stations and methods and take active breaks. Student and occupational health care services can include the promotion of physical activity and prevention of excessive sitting in health checks and sessions at the office or practice.

Among the elderly, mobility and sitting have an even bigger impact on health and well-being than among younger age groups. Environments and services that encourage activity and less sitting in everyday life are essential in activating the elderly and otherwise less mobile. Home services and other housing services for the elderly should strive to promote daily exercise and reduce sitting by engaging and encouraging the elderly to be active in various ways. Walking, gardening and other suitably strenuous physical activity - including muscle-building exercise - are appropriate for elderly people with normal capabilities. If capability is reduced, one can still reduce uninterrupted sitting and request help for going outside, for example. Social and health care institutions should give the elderly the opportunity and necessary support for taking steps in their daily routines.

A significant reduction of sitting and immobility in the society requires multisectoral cooperation on the municipality and national level. Decisions must be made within all administrative sectors.

The society should build an environment enabling and encouraging for physical activity; these include all public transport solutions. Accessibility and active choices in everyday life should be the main themes in building designing and interior decorating.

In social and health care, education and customer services staff training, particular attention should be paid to reducing sitting and immobility and taking breaks from prolonged sitting. Devices and technology should focus on applications that interrupt and reduce long periods of immobility.

Tiivistelmä

Yhteiskunnassamme työn fyysinen kuormitus on vähentynyt ja elämäntyyliimme suosii istumista. Vaikka suomalaiset harrastavat liikuntaa varsin säännöllisesti, on muu osa päivästä paljolti istumista: varhaiskasvatuksessa, koulussa ja muissa oppilaitoksissa, työssä, laitoksissa, kulkuneuvoissa ja kodeissa. Runsaalla ja pitkäkestoisella istumisella ja muulla paikallaanololla on haitallisia vaikutuksia muun muassa sydän- ja verenkiertoelimistön ja tuki- ja liikuntaelimestön terveyteen. Näin ollen kaikenikäisten ihmisten tulisi välttää runsasta istumista, kulkea lyhyitä välimatkoja kävellen ja pyörällä, seistä julkisissa kulkuneuvoissa ainakin osan matkasta ja pyrkiä fyysisesti aktiivisiin työtapoihin.

Lapsille liikkuminen on luontaista, mikä tukee kasvua ja kehitystä. Runsas istuminen ja liikunnan puute heikentävät myös lasten ja nuorten hyvinvointia eri tavoin. Yhteiskunnan ja vanhempien on luotava ympäristöjä, jotka tukevat lapsen ja nuoren aktiivisuutta ja oppimista. Lapsille ja nuorille on tarjottava aktiivinen elämäntapa, joka jatkuu läpi koko elämän. Vanhemmat voivat kannustaa lapsia monipuoliseen leikkimiseen ja ulkoiluun, suosimaan kävelyä ja pyöräilyä harrastus- ja koulumatkoilla, tauottamaan istumista ruutujen ääressä ja liikkumaan reippaasti ainakin tunnin päivässä. Lasten ja nuorten ohjaajien ja opettajien on tarjottava päiväkotii- ja kouluikäisille fyysisesti aktiivisia toimintatapoja ja olosuhteita. Turhat rajoitukset ja kiellot, jotka estävät liikkumista, pitäisi poistaa.

Valtaosa aikuisista tekee fyysisesti kevyttä työtä, kulkee matkansa kulkuneuvoissa istuen ja istuu runsaasti myös vapaa-ajallaan. Niin opiskelu- kuin työikäisten tulisi muuttaa arkeaan vähemmän istumista suosivaksi. On hyvä kävellä tai pyöräillä lyhyet välimatkat harrastuksiin, oppilaitoksiin, töihin ja kauppoihin, käyttää portaita hissien sijasta ja suosia vaihtelevia asentoja runsaan istumisen välttämiseksi. Opiskelu- ja työyhteisöissä voidaan suosia aktiivisia työpisteitä ja -tapoja ja pitää aktiivisia taukoja. Opiskelijaterveyden- ja työterveyshuollon pitäisi sisällyttää fyysisen aktiivisuuden edistäminen ja istumisen vähentäminen osaksi terveystarkastuksia ja kohtaamisia työpaikoilla ja vastaanotoilla.

lääkkäillä liikkumiskyvyn ja istumisen merkitys terveyteen ja hyvinvointiin on vielä nuorempia ikäryhmiäkin tärkeämpää. Arjen aktiivisuuteen ja istumisen vähentämiseen kannustavat ympäristöt ja palvelut ovat keskeisiä pyrittäessä aktivoimaan erityisesti liikkumiskyvyltään heikentyneitä iäkkäitä tai muita toimintakykyrajoitteisia ihmisiä. Kotipalvelun ja muun asumispalvelun tulisi ottaa erityiseksi tavoitteeksi edistää iäkkäiden ja toimintakykyrajoitteisten ihmisten päivittäistä liikkumista ja vähentää istumista esimerkiksi osallistamalla ja kannustamalla aktiivisuuteen. Kävely, pihatyöt, ulkoilu ja muu sopivan rasittava fyysinen aktiivisuus - lihasvoimaa ylläpitäviä harjoitteita unohtamatta - ovat sopivia niille iäkkäille, joilla on normaali toimintakyky. Jos

toimintakyky on heikentynyt, voi silti vähentää ja tauottaa istumista. Sosiaali- ja terveydenhuollon laitoksissa on annettava iäkkäille ja muille toimintakyvyltään rajoittuneille asiakkaille mahdollisuus päivittäiseen ulkoiluun ja tukea arjen askareisiin.

Istumisen ja muu paikallaanolon merkittävä vähentäminen yhteiskunnassa edellyttää hallintokunnat ylittävää yhteistyötä niin kunnissa kuin valtakunnan tasolla. Päätöksiä tarvitaan kaikilla hallinnonaloilla.

Yhteiskunnan on rakennettava liikkumisen mahdollistava ja siihen kannustava ympäristö joukkoliikenneratkaisuihin. Rakennusten suunnittelussa ja sisustuksessa johtavan teeman pitäisi olla esteettömyys ja arjen aktiivisten valintojen suosiminen. Sosiaali- ja terveysalan, opetusalan ja muun asiakaspalvelussa työskentelevän henkilöstön koulutuksessa on kiinnitettävä erityistä huomiota runsaan istumisen ja muun paikallaanolon vähentämiseen ja istumisen tauottamiseen. Laitteissa ja teknologiassa on entistä paremmin hyödynnettävä sovellukset pitkäkestoisten paikallaanolojaksojen tauottamiseksi ja vähentämiseksi.

Sammandrag

Arbetets karaktär i samhället har blivit lättare och vår livsstil gynnar sittande. Fast finländare utövar motion tämligen regelbundet, består den övriga delen av dagen till stor del av att sitta i förskolan, skolan och andra läroanstalter, arbetet, inrättningar, kommunikationsmedlen och hemmet. Omfattande och långvarigt sittande och annan orörlighet har skadliga samband med bland annat hjärt- och kärllhälsan och hälsan i stöd- och rörelseorganen. Därmed bör människor i alla åldrar undvika omfattande sittande, promenera och cykla korta avstånd eller stå i de offentliga kommunikationsmedlen och eftersträva fysiskt aktiva arbetsformer.

Att röra sig ter sig naturligt för barn och stöder deras uppväxt och utveckling. Omfattande sittande och brist på motion försvagar också barns och ungas välbefinnande på olika sätt. Samhället och föräldrarna ska skapa miljöer som stöder barns och ungas aktivitet och lärande. Barn och unga ska erbjudas en aktiv livsstil, som fortsätter genom hela livet. Föräldrar kan uppmuntra barn till mångsidig lek och utomhusmotion, att gynna promenader och cykling under fritids- och skolresor, att införa pauser i sittandet framför en skärm och röra på sig hurtigt åtminstone en timme om dagen. Barn- och ungdomsledare och lärare ska erbjuda barn i daghems- och skolåldern fysiskt aktiva arbetsformer och förhållanden samt avveckla onödiga begränsningar och förbud som förhindrar motion.

En majoritet av de vuxna utför fysiskt lätt arbete, gör sina resor stillasittande och sitter också mycket på sin fritid. Både personer i studieåldern och personer i arbetsför ålder bör ändra sin vardag så att den gynnar mindre sittande. Det är bra att gå eller cykla korta avstånd till fritidsaktiviteterna, läroanstalten, jobbet och affärerna, använda trapporna i stället för hissen och gynna varierande ställningar för att undvika omfattande sittande. Inom studie- och arbetsgemenskaperna kan man gynna aktiva arbetsstationer och -sätt och hålla aktiva pauser. Studerande- och företagshälsovården kan inkludera främjande av fysisk aktivitet och minskning av sittandet som en del av hälsoundersökningarna och mötena på arbetsplatser och mottagningar.

Rörelseförmågans och sittandets betydelse för hälsan och välbefinnandet hos äldre är till och med viktigare än för yngre åldersgrupper. Miljöer och tjänster som sporrar till aktivitet i vardagen och minskning av sittandet är centrala när man eftersträvar att aktivera särskilt äldre människor med nedsatt rörelseförmåga. Hemtjänsten och den övriga boendeservicen för äldre bör som särskilt mål sätta upp att främja dagliga rörelseaktiviteter för äldre och minska sittandet till exempel genom att engagera dem och uppmuntra till aktivitet. Promenader, gårdsarbete, utomhusmotion och annan lagom ansträngande fysisk aktivitet – utan att glömma träningsmoment som upprätthåller muskelstyrkan – lämpar sig för äldre med

normal funktionsförmåga. Om funktionsförmågan har försvagats kan man ändå minska och införa pauser i sittandet och vid behov be om hjälp med utomhusmotion. I social- och hälsovårdens inrättningar ska äldre ges möjlighet och stöd till steg för att klara av vardagsbestyren.

En betydande minskning av sittandet och annan orörlighet i samhället förutsätter förvaltningsöverskridande samarbete i såväl kommuner som på riksnivå. Beslut behövs inom alla förvaltningsområden.

Samhället ska bygga en miljö som möjliggör och uppmuntrar till rörlighet med sina kollektivtrafiklösningar. Det ledande temat vid planering och inredning av byggnaderna bör vara tillgänglighet och gynnande av aktiva val i vardagen.

Inom utbildningen för personal som arbetar inom social- och hälsovårdsbranschen, undervisningspersonal och övrig personal inom kundtjänst ska man fästa särskild uppmärksamhet vid minskningen av omfattande sittande och annan orörlighet och införandet av pauser i sittandet. Tillämpningarna för utrustning och inom teknologin ska utnyttjas ännu bättre för att avbryta och minska perioder av långvarigt stillasittande.

Foreword

Nowadays our way of life is mainly based on sitting. We like to sit in front of television, computers and other entertainment, and the same continues in schools, work places, institutions and vehicles. Our organisations have an operating culture that favours a sedentary way of living, and making that culture more physically active is a major challenge. We need a change in attitudes and a will to choose physically more active options instead of sitting. In addition, the society needs to offer possibilities for options that favour movement.

We have a chance to succeed in this lifestyle change. This requires changing our everyday life in such a way that we are able to choose options that are physically more active. Early childhood education as well as school, study and work days have to reduce sitting at length. The same applies to institutional care. People of every age could make short personal business trips and move from one place to another more on foot or by bicycle, instead of using motorised vehicles. People could also spend more of their free time outside or do more physically active chores at home.

Reducing sitting is a personal choice for each individual, but the society and communities can in many ways support and encourage people to select physically active choices. It is important that our everyday environment favours and encourages physical activities. The unnecessary restrictions and bans imposed on these activities must be removed. Favourable conditions for physical activity must be created both inside and outdoors in day cares, schools and study places, in work places and supported housing. Safe, accessible and pleasant everyday environments with their pedestrian and cycle paths, outdoor recreation routes and other green space will allow people of every age to engage in physical activity.

In order to significantly reduce sitting and other immobility, multisectoral cooperation on the municipality and national level is needed. Decisions must be made within all administrative sectors.

REDUCE SEDENTARY TIME – GET HEALTHIER! recommendations' purpose is to present practical ways to reduce sitting. The recommendations are meant for different age groups as well as for day cares, education institutes, work communities, social and health care institutions and different municipal sectors. The recommendations are prepared in an expert working group commissioned by the Ministry of Social Affairs and Health and the Ministry of Education and Culture's joint steering group for health-enhancing physical activity. The chairman of the working group is Director Tommi Vasankari from the UKK Institute and the secretary is Senior Officer Mari Miettinen from the Ministry of Social Affairs and Health. The members of the working group include Päivi Aalto-Nevalainen, Counsellor for Cultural Affairs in the Ministry of Education and Culture; Eino Havas, Director of the Research Centre LIKES; Harri Helajärvi,

acting Specialist Doctor from the Paavo Nurmi Centre; Jaakko Kaprio, Professor at Helsinki University; Kari Reijula, Professor at the Finnish Institute of Occupational Health; Sirpa Lusa, Team Director at the Finnish Institute of Occupational Health; Tiina Laatikainen, Professor at the Finnish Institute of Occupational Health; Arto Pesola, Researcher at Jyväskylä University; Tuija Tammelin, Research Director at LIKES – Research Center for Sport and Health Sciences, and Team Manager Matleena Livson from Valo, Finnish Sports Confederation.

Warm thanks to the whole working group for their excellent writing!

Juha Rehula
Minister of Family Affairs and Social Services

I Sit less and move more – begin in childhood, continue throughout life!

Regular exercise and healthy diet are essential in promoting health and well-being, but work has become physically lighter, as has our whole lifestyle, as well. This promotes sedentary behaviour and forces us to sit more than before.

Sitting or remaining stationary continuously for a long time has been shown to have independent negative impacts to health, regardless of other lifestyles. These impacts occur widely in our bodies, from musculoskeletal to cardiovascular systems. Therefore:

- 1. Avoid excessive sitting and remaining immobile whenever possible.**
- 2. Walk or cycle your work, school and personal business trips at least partway, or you can also stand in public transport for some of the time.**
- 3. Try to maintain physically even more active and varied ways of working, so that positions and methods vary regularly.**

In these recommendations, sitting means, besides sitting down, also all other immobility, with the exception of standing. The guidelines of reducing and breaking up sitting therefore mean for people using for example a wheelchair that they should increase their physical activity, even though they might not always be able to stand up.

Excessive and continuous daily sitting and other sedentary behaviour are connected to

- higher risk of death
- cardiovascular diseases
- metabolic diseases, such as type 2 diabetes
- depression
- cancer
- respiratory diseases
- musculoskeletal problems

2 Children and young people: "get up often!"

Exercise and active exploration of the environment come naturally for children, which supports growth and development. Too much sitting and a lack of exercise weaken the well-being of children and young people in many ways. It is up to us adults to create an environment that supports the activity and learning of children and young people. Let us do it together, on children's terms!

Parents must offer a child a possibility to active self-realisation at home, in school and on free time. Let us give a child and a young person a possibility to a physically active lifestyle that continues throughout their lives.

- Excessive or continuous sitting causes health risks to children and young people.
- Students of upper comprehensive schools spend almost as much time of their day sitting as adults.
- Regular exercise and reasonable sitting reduce musculoskeletal problems, prevent overweight and support general health and well-being in many ways.
- Physically active everyday life is connected to better learning results.

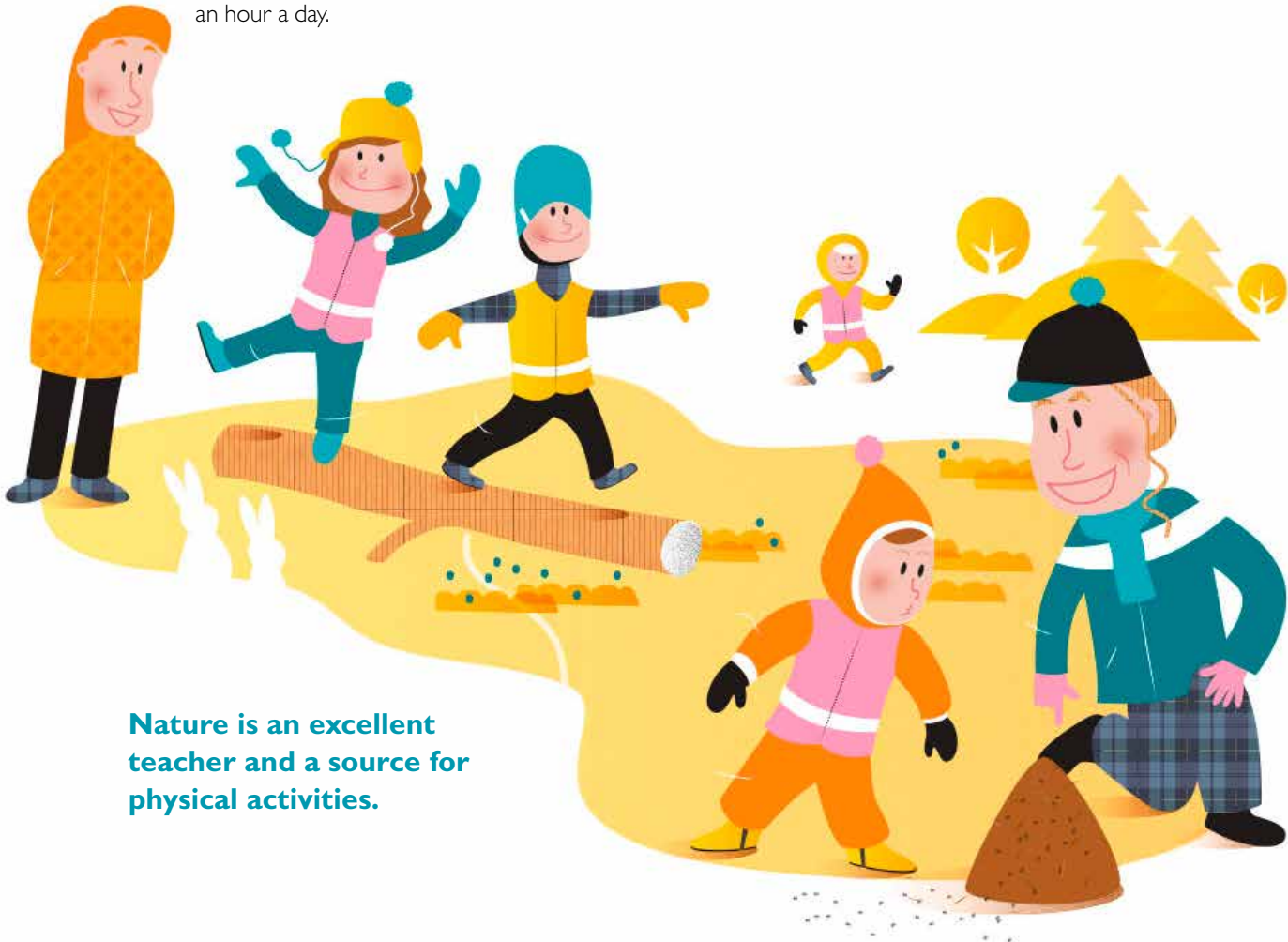
2.1 Recommendations for children and young people

Child: play and be physically active in many different ways. Exercise can be realised in many ways at home, on a playground, in yard games or in nearby nature. It is good to play and spend time outside every day.

Young person: be physically active and make the most of the everyday possibilities for exercising! Be active when going to school, to hobbies or to see friends – walk, cycle or skate. Choose a method of physical activity you enjoy – also together with your friends. Even short trips accumulate a lot of exercise during a week or a year, almost unnoticed.

Children and young people: consider whether it would be possible to reduce and break up sitting at home? You can also use computer, tablets or mobile phones while standing.

You should remember the one hour rule: do not sit continuously for over an hour and exercise at least an hour a day.



Nature is an excellent teacher and a source for physical activities.

2.2 Recommendations for parents

Parents: create environments that enable varied play and other physical activity for the child, both at home and on the courtyard. It is good to listen to and to take child's thoughts into consideration. Motivate the child to engage in activities that have a natural variation of movement and immobility, both inside and outdoors. Encourage the child to play and exercise outside during all seasons. Being outside naturally increases activity.. Being outside naturally increases activity.

Remove unnecessary limitations that prevent the child from freely being physically active. Encourage the child in various physical activities. This way you can support the growth, development and learning of the child.

Adults are responsible for making sure that a child does not spend too much time sitting. Encourage a child and a young person to regularly suspend the use of computer and mobile devices. Agree on common rules about screen time, so that a child or a young person will not sit continuously for over an hour at a time.



Exercising together is fun!

Decorate the child's room and your home in such a way that it encourages postural rotation. Avoid placing a television or other devices that add to the screen time in a child's room. It is possible to use a computer or a mobile phone also while standing or sitting on an exercise ball. Video games that require standing and moving bring variation to posture, replacing continuous sitting.

Encourage the child to actively commute to school or to hobbies. It is good to go through the safest route together and practise the journey. If the journey is longer and the child has to use public transport, they can walk to the departure stop and then again walk onward when they reach their end stop. Avoid transporting the child by car.

Encourage the children to exercise and play outside with their friends.



Give the child an example of how to be physically active. Children enjoy doing things together. Be physically active also in your own everyday life. Reduce and break up your own sedentary time and sitting, also when you are spending time with the child.



The parents' example has a great impact on the child – take part, be excited and supportive!



**Genuinely together or both
apart, which one do you
choose?**



2.3 Recommendations for instructors and teachers

Support children and young people's activities, learning and exercising in an age-appropriate way. Aim to reduce and regularly break up children and young people's long-lasting, continuous immobility and sitting. It is good to give reasons why it is important to take a break from sitting.

Remove unnecessary limitations that prevent the child from freely being physically active. Offer varied and innovative methods that encourage learning and enhance it. Teaching and every school day should include postural rotation and varied physical activities.

In all teaching, you should take into consideration the harmful effects of sitting continuously for hours. Co-operate with the children and the young to improve the day care and school environments, and to develop ways to reduce sitting. This should also be a part of the theoretic and practical teaching at schools.

Teachers: be an example to the students.



**Active approaches
inspire learning.**

2.4 Recommendations for day cares, schools and municipalities

Day care staff: does your day care encourage active play both inside and outside? Remove unnecessary limitations that prevent the child to exercise freely.

Day cares and schools: create an environment that encourages and teaches children and young people various ways to play, act and work. Offer different kinds of active approaches and encourage working with postural rotation.

Teachers: does your school have a possibility to stand up while working and to stretch one's legs between the lessons? Build a learning environment that encourages activity, both to teaching areas and outside them. When choosing the furnishing, space and activities, consider the different growth and development stages of children and young people.

School health care: promoting exercising activity and reducing sitting should be a part of health checks.

Encourage the child to actively commute to day care, school or hobbies: to go by foot or use a bicycle or a non-motorised scooter. Add activity to plays, recesses and lessons to balance constant sitting.



Cycling, walking or using a scooter on the way to school is refreshing.

3 Students and working-age people: "sit less during the day!"

Most Finnish people do physically non-strenuous work, sit their way to work and also spend a lot of their free time sitting. This is why the majority of the citizens are sedentary and mainly sitting for most of their awake time. Not even regular free time exercise is enough to prevent the health risks caused by excessive daily sitting.

The environments that encourage everyday activity, sitting reduction and postural rotation as well as planning different activities help to change habits. That is why the guiding principles for study and work communities, city planning and other planning of the everyday methods should be promotion of exercise, reduction of sitting and postural rotation.

- Adult Finns sit, lay or stand still for over three quarters of their awake time.
- Excessive daily sitting and continuous sitting periods that last for hours cause significant health risks.
- For those, who sit over 7 hours a day, every additional hour of sitting means an increase of 5% in the risk of death.
- For those Finns, who sit over 9 hours a day, sitting is connected to being overweight, to lack of sleep and to more frequent visits to a doctor.
- Sitting at work and on free time may have a different connection to health. Some studies show that excessive sitting on free time is more strongly connected to health problems than sitting at work.

3.1 Recommendations for students and working-age people

Student and a working-age person: change your everyday life one routine at a time, so that you reduce sitting and take breaks when sitting for a long time. Recognise your own habits by measuring your activity or your steps. Begin the change from the things that often occur in your everyday life. Most of the free time sitting happens in front of the television.



One extra bus stop every day, morning and evening, accumulates around 150 kilometres a year.

All physical activity is beneficial. Find your preferred ways to add physical activities to your studies, work and free time. Persevere with making the change, because it takes a few weeks or months for practises to become habits.

Walk or cycle short trips to your education institute, to work, to hobbies, to shop and elsewhere whenever possible. Walking one extra bus stop every work day, 300 metres every morning and evening, means an extra three kilometres a week and circa 150 kilometres a year

Take the stairs whenever possible. Walking briskly up the stairs efficiently expends energy and improves your endurance.

Postural rotation improves the vitality of both mind and body. Instead of sitting, you can do many things standing or moving around. Reading a newspaper, eating, having a coffee break and watching TV or some other screen can easily be done while standing. When at home, get up from the sofa once or twice in an hour. When you are in a seminar, the organiser can suggest the audience to give a standing ovation – you yourself can also show an example in this!

Remember moderation. When doing heavy work, a break sitting or even lying down can be needed.

Walking up the stairs is an everyday super workout.



3.2 Recommendations for study and work communities

Studying and working vitality improves with less sitting, breaks and postural rotation if sitting continuously for a long time. Often changes in working postures also improve the productivity of the work. Promoting physical activity is a task for the whole study and work community. Commitment to an active everyday life can be realised by bravely challenging the old habits, creating new ways to be active and agreeing on them together. The new, more active ways of doing things that are adopted at studies or work easily become part of free time, as well, part of the more active way of life.

In order to reduce sitting and to pause sitting stretches, create general rules for the study and work community together with different parties (executive level, managers, trustees, HR management, occupational health and security staff at work places). Consider the meeting procedures at the work place and the teaching situations in educational institutes, and aim to reduce sitting and pause long periods of sitting during them.

Directors at educational institutes, employers, managers: encourage the students and employees to walk or cycle the distances. You can promote this by creating environments and agreeing on procedures that support active movement from place to another. Also take into consideration the parents of small children.



A family can commute together to school and work – each one moving as befits their age.

Directors at educational institutes, managers: keep your people lively! Nurture the procedures agreed on together. Lead with your own example and discuss the matter as part of the initiation, development discussions, meetings and other moments together. At education institutes and work places, create a physical environment and operating culture that encourages the prevention of excessive sitting and breaking up continuous sitting – during both studies and work, as well as lunch or coffee breaks.

Teachers: adopt breaking up sitting and methods that encourage postural rotation to be part of the lecture and teaching culture in order to change the students' habits.

Occupational health operators: evaluate the amount of sitting in a work place as part of other risk evaluation. If there is plenty of sitting, decide to do something together in order to correct the situation.



Standing or walking meetings can be organised in every work community.

Student and occupational health care services: include mapping sports activity and sitting, as well as promoting physical activity and preventing excessive sitting in health checks and sessions at the office or practice. Support the finding and adopting of new, active habits in a way that they can become a permanent part of the everyday life. Take every person's individual wishes, work characteristics and other lifestyles into account.



Together you can build a work place that supports physical activity.

HR management and staff representatives together with the employer: include the promotion of physical activity and the prevention of excessive sitting in the characteristics of a good place to work.

Labour market organisations: support the promotion of physical activity and prevention of excessive sitting together by means of agreements, training and communication. Challenge different actors in order to reach the common goal.

An employee that is physically active, engages in postural rotation and avoids or breaks up sitting is an asset to individual, to employer and to the society.



Common pause exercises bring well-being to everyone.

4 Elderly or those with limited functional capacity: "move more every day according to your own capabilities!"

For the elderly or those with limited functional capacity, maintaining mobility and preventing extensive sitting have an even bigger impact on health and well-being, and these are only emphasised as people get older. Maintaining physical mobility enables participation and independent everyday life. Mobility can be improved by daily functional exercise and sporting activities. Every bit counts when it comes to exercising. Maintaining good physical capacity and working out in a way that trains muscle strength and balance also reduce the risk of falling. Nearly three of the four falling cases happen to inactive elderly people. Over a third of men and a half of women fall into this category.

Accessible, safe and stimulating environments both inside and out encourage to be active in everyday life and prevent excessive sitting. Daily functional exercise is complemented by different exercise groups targeted to elderly people with different functional capabilities. In care services for the elderly, an approach promoting functional capacity is essential in the operating culture. That encourages daily physical activities and prevention of excessive sitting by offering worthwhile activities.

- Sitting and other sedentary behaviour increases with age. Those over 75 years of age sit more excessively than younger people.
- Excessive daily sitting and continuous periods of immobility cause significant health risks for elderly people.
- The more someone sits, the more likely they are to fall, this being especially true for older men.
- Only around 60% of those over 75 can climb one flight of stairs without resting.
- Bed rest weakens the muscle strength of those over 75 for 3–5% a day for the first week.
- There are very different levels of functional capability among the elderly.

4.1 Recommendations for the elderly with normal functional capability

Elderly person: include some physical activities to your every day. Walk your short personal business trips, use stairs instead of an elevator, do not count your steps when doing house work.

Avoid excessive, continuous sitting and sedentary behaviour. Limit and pause the time you spend in front of the television, radio and computer.

Functional exercising like walking, gardening or other house work effectively maintain your mobility. In addition to aerobic exercise like walking and cycling, also train your muscle strength, balance and mobility. Simply getting up and doing even the smallest activities keep your mind and body lively and also strengthen your memory.

Fresh air is invigorating. Exercise together with your friends and ask lonely peers to join in. Exercising together gives support and safety, and some people enjoy it more than exercising alone. Choose your routes so that you will get stimuli to all the senses and you have a chance to rest, if needed.



Exercise can also increase social contacts.

Elderly people and those closest to them: do things together and support each other in leading a physically active lifestyle.

Different generations being physically active together increases both human and physical capitals. Older people have plenty of experience-based knowledge about for example culture and nature to be shared with younger people.



Common play and exercise crossing generations give stimuli to everyone.

Nature, parks and gardens offer an excellent environment for exercise. Sitting is rarely a problem in garden work! Activity parks for the elderly are great exercise places for groups.



Make the most of the possibilities offered by nature and gardens.

4.2 Recommendations for the elderly with limited functional abilities

If you have limited functional abilities, come up with good reasons to move every day and use moving aids if needed. Try to be independent in your daily chores, even if it took some effort and you had help available. Daily chores, meeting other people and having interests that are important for you keep you moving.

Remember to exercise daily using for example a chair as an aid. Even small movements of upper or lower limbs and the body while sitting and getting up from the chair are advantageous. You can ask for exercise instructions from your health centre, home care services or information service for the elderly.

Spend some time outside every day and, if necessary, ask for help or walking company to be able to exercise outdoors. Even a short walk outside improves your functional abilities and resistance, and increases your mental well-being.



An accessible and stimulating environment enables an active everyday life.

4.3 Recommendations for municipalities and for the organisers of care services for elderly or those with limited functional capacity

Every elderly person who is entitled to care services or assisted living services, or a person with limited functional capacity has a right to an individual activity plan. The plan includes functional exercise, outdoors exercise and sports activities.

Home care services: mobility is essential for maintaining independent capabilities of an elderly person or a person with limited functional capacity. Help and support the customers of home care services in daily physical activity, according to their individual capabilities.

Social and health care units: give the customers a possibility and support to walk some steps in their daily chores and when they are being treated. Active rehabilitation after a hospital period or operations is a prerequisite for recovering and maintaining physical capacity. Enable the customers' participation, if possible. At the same time you reduce the customers' immobility and encourage to activity and doing things together. In addition, you promote the customer's mental well-being.

City and traffic planning: accessible, safe and stimulating environment encourages activity and gives the elderly or others with limited functional abilities a possibility to rest. This way it is possible to increase independence and participation of the elderly. Public transport solutions, transport services and traffic routing play a central role in encouraging the elderly and those with limited capacity to physical activities. Well-functioning operations also support their independent living.

Municipalities: organise exercise groups and other leisure time activities for the elderly still living at home in order to strengthen their mobility and support their independent living. It is important that the activity groups can be reached by transport services that have functional arrangements and schedules that work.



**Encourage and support
– even the smallest
movement helps.**

5 General recommendations for different actors

Principle of permeability in administration – reducing sitting and other sedentary behaviour in the society requires multisectoral co-operation on the municipality and national level. Decisions must be made within all administrative sectors.

Building design – accessibility and active choices in everyday life should be the main principles in building designing and interior decorating.

Public spaces – offices and public spaces should be designed in a way that enables waiting and taking care of one's business also while standing.

Education and training – in training the staff working in the social and health care, education and other customer services, particular attention should be paid to reducing sitting and immobility and taking breaks from prolonged sitting.

Technology – applications that enable the reduction and breaking up of excessive, continuous periods of immobility must be even better utilised in devices, technology and software.

Watching television and programmes – watching television and other screen time should be realised using postural rotation. It is also possible to do house work or exercise while watching. Television programmes should have integrated content that encourages the watchers to be active.

Traffic planning – traffic solutions should favour pedestrian and cycle paths, public transport and active trip chains that give a possibility to walk and cycle at least as a part of the chain.

Essential literature about sitting and health risks and recommendations for physical activity:

Borodulin K, Kärki A, Laatikainen T, et al. Daily sedentary time and risk of cardiovascular disease: the national FINRISK 2002 study. *J Phys Act Health* 2014 Aug 22 (E-pub ahead of print).

Campbell Jenkins BW, Sarpong DF, Addison C, et al. Joint effects of smoking and sedentary lifestyle on lung function in African-Americans: the Jackson Heart Study cohort. *Int J Environ Res Publ Health* 2014; 11: 1500-1519.

Carson V, Wong SL, Winkler E, et al. Patterns of sedentary time and cardiometabolic risk among Canadian adults. *Prev Med* 2014; 65: 23-27.

Chau JY, Grunseit AC, Chey T, et al. Daily sitting time and all-cause mortality: A meta-analysis. *PLoS One* 2013; 8(11): e80000.

Helajärvi H, Rosenström T, Pahkala K, et al. Exploring causality between TV viewing and weight change in young and middle-aged adults. The Cardiovascular Risk in Young Finns Study. *PLoS One* 2014; 9: e101860.

Husu P, Tokola K, Suni J, ym. Istumisen yhteydet terveyteen ja hyvinvointiin poikkileikkaustutkimuksessa – tuloksia Alueellisesta terveystutkimuksesta ja hyvinvointitutkimuksesta. National Institute for Health and Welfare (THL), Report 2014; 37: 49-56.

Husu P, Suni J, Vähä-Ypyä H, ym. Suomalaisten aikuisten kiihtyvyyssmittarilla mitattu fyysinen aktiivisuus ja liikkumattomuus. *Suom Lääkäril* 2014; 69: 1860-1866.

Mork PJ, Westgaard RH. Back posture and low back muscle activity in female computer workers: a field study. *Clin Biochem* 2009; 24: 169-175.

Pesola AJ, Laukkanen A, Tikkanen O, et al. Muscle inactivity is adversely associated with biomarkers in physically active adults. *Med Sci Sports Exerc* 2015; 47: 1188-1196.

de Rezende LFM, Rey-Lopez JP, Matsudo VKR, et al. Sedentary behavior and health outcomes among older adults: a systematic review. *BMC Publ Health* 2014; 14: 333.

de Rezende LFM, Rodeiques Lopes M, Rey-Lopez JP, et al. Sedentary behavior and health outcomes: an overview of systematic reviews. *PLoS One* 2014; 9: e105620.

Zhai L, Zhang Y, Zhang D. Sedentary behavior and the risk of depression: a meta-analysis. *Br J Sports Med* 2015; 49: 705-709.

Essential recommendations for physical activity:

Department of Health and Human Services. Physical activity guidelines for Americans. 2008.
www.health.gov/paguidelines

Physical Activity – Current Care Guideline (summary in English). The Finnish Medical Society Duodecim.
2010. <http://www.kaypahoito.fi/web/english/guidelines>

Physical activity pies:

http://www.ukkinstituutti.fi/en/products/physical_activity_pie

http://www.ukkinstituutti.fi/ammattilaisille/terveysliikuntasuosituksset/liikuntapiirakka_yli_65-vuotiaille

http://www.ukkinstituutti.fi/ammattilaisille/terveysliikuntasuosituksset/soveltavat_liikuntapiirakat

http://www.ukkinstituutti.fi/ammattilaisille/terveysliikuntasuosituksset/lasten_ja_nuorten_liikuntasuosituksset

Opetusministeriö ja Nuori Suomi. 2008. Physical activity recommendations for 7 to 18 years of age.
Helsinki: Ministry of Education and Young Finland Association.

Recommendations for physical activity in early childhood education. 2005. Handbooks of the Ministry of Social Affairs and Health number 17. Helsinki: Ministry of Social Affairs and Health, Ministry of Education and Young Finland Association.

WHO. 2010. Global recommendations on physical activity for health.

