

tover[®]
purposeful play

A man with glasses and a white t-shirt is laughing joyfully. He is standing in front of a background of colorful bokeh lights in shades of purple, blue, and green. The overall mood is positive and energetic.

The importance of exercise for people with dementia

Table of content

1. The importance of movement	3
1.1 General day-to-day life operations	3
1.2 Other benefits	4
1.3 Movement, what is it?	5
1.4 Why do elderly people move so little in care institutions?	6
1.5 Movement is everywhere!	6
2. Getting started	7
2.1 General tips	7
2.2 Sitting exercises	8
2.3 Exercises for the later stages of dementia	9
2.4 Movement and the Tovertafel: A good combination	9
Conclusion	10
References	11

Want to know more about the
Tovertafel? Visit www.tover.care

Introduction

Many people with dementia have to deal with it: their world is getting smaller and smaller. They hardly go out, have little social interaction, often suffer from apathy and have lost their sense of self-worth.

What doesn't help is that people with dementia get very little exercise. Especially in care homes this is a common problem. How come there is so little movement in care homes? Why is exercise actually so important? And above all: how can carers and family members stimulate people with dementia to get moving? In this whitepaper we give answers to all these questions.



1. The importance of movement

It is not without reason that the Dutch Health Council of the Netherlands has a Exercise Guideline¹. Exercise has many advantages:

Exercising reduces the chance of:

- diseases (such as cardiovascular disease, old-age diabetes, breast cancer, colorectal cancer and depression)^{2,4-7}
- bone fractures, cognitive decline and dementia¹
- falling⁴
- serious injuries⁴

Furthermore exercise also contributes positively to:

- general stamina³
- increased muscle strength and walking speed¹
- healthy body composition³
- increased physical and cognitive functioning³
- conducting general Activities of Daily Living (ADL).⁴

1.1 General day-to-day life operations

When you think of the word 'exercise' you quickly think of sports and working on a healthy and strong body. But moving also means getting up from a chair and getting dressed. The effects of exercise go far beyond a healthy and strong body. It affects a person's independence and self-reliance. When you are in good physical and mental condition, actions such as brushing your teeth or going to the toilet are the most normal thing in the world. You hardly think about how many of these kinds of Activities of Daily Living (ADL) you actually perform in a day.

All these small actions unconsciously contribute a lot to your self-esteem. How would you feel if, for example, you could no longer dress yourself? For people with dementia these actions are not so obvious at all, because fine motor skills play a major role in their performance. And in order to grasp a small object or make a precise movement, you need to be able to estimate how much force you actually need to apply. This is something that becomes increasingly difficult for people with dementia. Their dependency on care is increasing and the greater that dependency, the lower their quality of life.¹³

Geriatric therapist - Nicole Knippenburg

"If you live independently at home, with or without home care, you have to be able to do a number of things: you have to be able to go to the toilet, because you cannot wait for home care to arrive, you have to be able to get up to grab a drink or open the door if necessary. Also for people in a care institution, the general daily life directions are still very important. It is important for self-confidence that you can do things yourself."



Training ADL is essential for the quality of life of people with dementia living in care institutions. Stimulating exercise contributes to this because exercise increases endurance, muscle fitness, functional health and cognitive functioning.³

1.2 Other benefits

In addition to continuing to stimulate ADL, exercise provides a number of other benefits that contribute to the quality of life and reducing dependency on care:

- positive effect on cognitive functioning⁹⁻¹²
- increase in social contact⁴
- maintaining strength, balance, mobility and stamina¹⁴

Combination of physical and cognitive exercises

From a study by Karssemeijer et al. (2017) it appears that in particular the combination of cognitive and physical exercises are very promising in reducing cognitive decline in the case of dementia. Think about throwing or rolling a ball, while mentioning the name of the person to whom you play the ball. Another major advantage of this combined intervention: it has a positive impact on the state of mind of people with dementia, one of the dimensions of quality of life.^{8,15}

Social contact

Social interaction is also an important pillar of quality of life.¹⁶⁻¹⁸ A chat during a walk, looking at each other when you pass a ball over, hold hands to help someone get out of their seat: exercise activities, no matter how extensive or simple, are ideal moments for social contact.



Movement, what is it?

How much do we have to move?

Minimum of 150 minutes



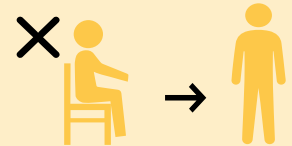
moderate to intensive exercise spread over the week

2 times per week muscle and bone strengthening exercises



in combination with balance exercises

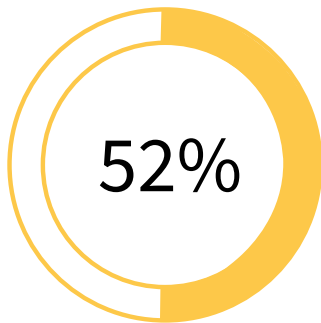
Avoid sitting still for long periods of time



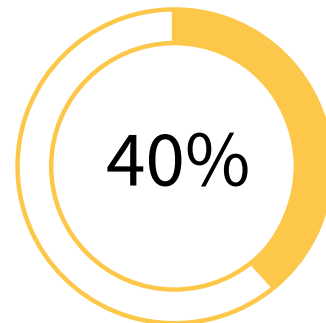
Stand in between more often

How much do we actually move?

18 to 65-year-olds. 52% compliance with movement guidelines

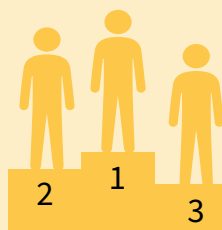


Elderly (65+) move relatively little. Only **40%** comply with the exercise guidelines



How much do care home residents move?

- 1 Peers living at home without dementia
- 2 People living at home with dementia
- 3 People with dementia who living in a care institution



Carehome residents spend their time often inactive in a lying or sitting position.²³



1.4 Why do elderly people exercise so little in care institutions?

Moving takes time, especially when someone can't do that much anymore. Many people with dementia tend to give up certain activities in the long run. It almost feels like a top-class sport to them and it is frustrating when things don't work out. Moreover, the people around them take over these actions with love when they see that a resident or family member has difficulty carrying them out themselves. After all, 'helping someone else' is in the DNA of many carers. In this way people with dementia come into a vicious circle, because they get less and less training in the general daily activities.

1.5 Movement is everywhere!

Whether you go for a walk or put on your trousers: all movement counts. Breaking through the occasional sitting by standing up for a moment, stretching out or brushing your own teeth are all examples of how movement can be part of your day without you even realising it. In the next chapter we will give some examples of the exercises you can do as a carer or family member with people suffering from dementia.

Activity leader - Sharon Lodder

"I am an advocate of letting people do what they are still able to do themselves. Let somebody put butter on the bread themselves, even if it's slower than if you do it for them. A wheelchair is easier, but if someone can walk slowly, that's better. I think that in many care homes there can be more emphasis on what people can do themselves. If someone spreads his or her own sandwiches, you can go to someone else who really can't do it. It also gives a sense of self-worth if someone can do it themselves."



2. Getting started

Anyone can move! Whether you are old or young, sporty or less sporty. The most important thing is that the form of exercise that is chosen is fun and fits the level. That way it doesn't feel like a fitness or exercise programme and you avoid frustration.

2.1 General tips

Encourage ADL

Generally speaking, it is crucial to continue to encourage general day-to-day actions. By carrying out these actions yourself, you stay self-reliant for longer and the feeling of self-esteem grows. Encourage the elderly to continue doing the things they can still do themselves, such as getting dressed, helping with household chores and eating independently.

Stimulate the social network of the older person to walk around together

Walking is a pleasant and social way of moving. It can be done at your own pace and it doesn't have to be far. For family members it can be difficult to come up with activities during a visit to their relatives. A short walk is always good.

Also move with elderly people who are less mobile

Cycling on a duo-cycle, playing with a care innovation such as the Tovertafel or bouncing a balloon are activities that are also possible when someone is less mobile.



Occupational therapist - Fabiënne Gerlings

“Exercise is important for everyone and even more so for people with dementia. Due to their dementia, they are quickly inclined to stop moving because the world around them feels increasingly unsafe. They see worse, they hear worse, they feel worse. The moment you don't move, your muscles deteriorate, as well as your joints and blood circulation, which can lead to other complaints such as contractures or bedsores.”



2.2 Sitting exercises

Is a resident unable to stand or walk properly? Even while sitting down there are plenty of exercises that stimulate movement. Preview them or show a video of someone doing the exercises. Make them part of the daily routine by, for example, doing them before breakfast.

On the internet you can find many examples of fun exercises you can do while sitting down. For example, Alzheimer's Society shares information on [Exercise in the middle stages of dementia](#).

Turning the upper body

Hold the arms in front of the body and turn the body from left to right



Marching on the spot

Lift the legs one by one, if necessary accompanied by the arms that are actively participating



Raise arms

Try to make it more fun by, for example, pretending to pick apples



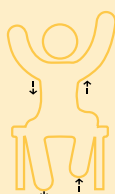
Alternately raise the heels and toes

With two feet at the same time



Turning circles with arms extended

Stretch the arms to the side and try to turn small circles



Raise the opposite arm and leg

Stretch your right arm while simultaneously lifting your left leg slightly off the ground



Try to stand up and sit down carefully

You can only do this exercise if the resident is still able to do so



2.3 Exercises for the later stages of dementia

How much someone has to move in the later stages of dementia cannot be said so precisely because physical abilities can vary greatly between people. Again, all movement is taken into account. Challenge someone to change chairs or try to without assistance - only when possible and always under supervision. A daily routine that includes movement contributes to the flexibility and suppleness of joints. Some nice exercises (from the website www.alzheimers.org.uk):

- When getting up from the bed, first let the resident **shuffle over the edge of the bed**, from one side to the other with their legs on the ground.
- **Balance - with support if necessary - in a standing position**, for example while brushing teeth. This exercise helps with balance and posture and can be part of
- Lie on the bed as flat as possible **for 20-30 minutes every day** and try to reduce the distance between the curvature of the back and the mattress. This will ensure a good stretch, strengthen the abdominal muscles and give the neck muscles a chance to relax.
- **Get up and move regularly**. Regular exercise helps to keep the leg muscles strong and maintain a good balance.

2.4 Movement and the Tovertafel: A good combination

We, too, want to help people with dementia to move as much and as easily as possible. That's why we developed the Tovertafel: a special care innovation that projects games on the table. With our game packages you stimulate specific effects in a targeted way, such as creating more interaction, more movement or increasing self-confidence.

The games have been developed together with care workers and other users and offer the players more than just surprise and fun: they make a positive impact on the quality of life of people with dementia.

See also the [vlog](#) about movement and dementia of Tovertafel creator Hester Le Riche.



Want to know more about the effects of the Tovertafel and the games?

Visit www.tover.care or please contact us via: info@tover.care or call +31 (0)853034819

Conclusion

Despite the fact that exercise is very important for elderly people, they are the least likely to meet the exercise guidelines. In particular, people with dementia living in care institutions hardly

And that is unfortunate, because exercise has positive effects on both the cognitive and physical functioning of people with dementia and on the performance of ADL. Stimulating exercise can reduce dependency on care and increase social contact. Both are very important for increasing the quality of life of people with dementia. So make exercise part of the daily routine. Make exercise fun!



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