

References:

DUL, J. and Weerdmeester, B., 2001. Ergonomics for beginners: a quick reference guide. 2nd ed edn. London : New York: Taylor & Francis.

Tamminen-Peter, L., Wickström, G., 2013. Potilassiirrot : taitava avustaja aktivoi ja auttaa. Helsinki: Työterveyslaitos.

Web site of Julkisten ja Hyvinvointialojen Liitto, referred the 20.10.2019 www.jhl.fi/

Web site of Assistive Technology Australia 2019, referred the 30.01.2019. Available: <https://at-aust.org/>

Website of the Finnish Institute of Occupational Health. Referred the 11.02.2020. <https://www.ttl.fi/en/>

Weston E., Khan S., Marras W. 2017. Wheelchair pushing and turning: lumbar spine and shoulder loads and recommended limits, Ergonomics, 60:12, 1754-1765, DOI: 10.1080/00140139.2017.1344445

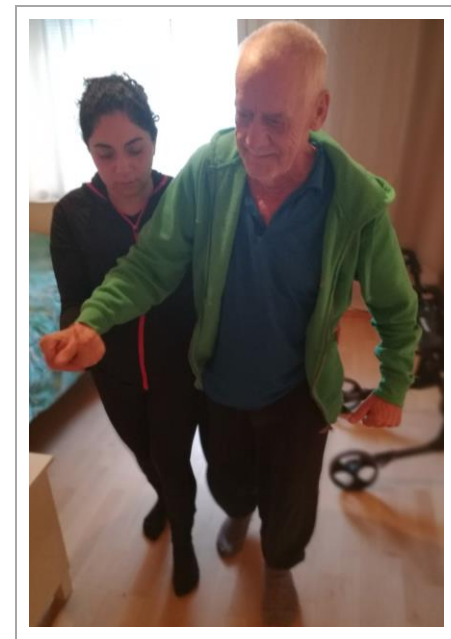
Web site of The Ministry of Social Affairs and Health, Occupational Safety and Health in Finland, referred the 20.10.2019 <https://julkaisut.valtioneuvosto.fi/bitstream/handle/10024/71607/URN%3ANBN%3Afi-fe201504224086.pdf?sequence=1>

Contact Us

Satakunnankatu 23
28130 Pori, Finland

Phone: +358 2 620 3000
Email: firstname.lastname@samk.fi
Web: www.samk.fi

Ergonomics for Personal Assistants



**Itzel Butrón & Satakunta University of
Applied Sciences**

Table of Contents

About this manual.....	1
Some things to consider.....	2
Assistive Devices.....	2
Wheelchair.....	4
Before the transfer.....	5
Transfers.....	6
Standing up after a fall	10
Final thoughts	11

About this manual.

Personal assistants have an important role in clients lives with activities of daily living and integration, they work together and become hands, feet, eyes and voice of those who cannot live independently. It is very important for assistants to take care of their own body, as it is their most important tool at work.

This manual is addressed to caregivers who also wish to take care of their ergonomics and safety. Here, the most common situations in which clients need assistance are reviewed with tools and techniques that make it easier and safer for those who are involved in a transfer.

Did you know?

Did you know that diseases of the musculoskeletal system are one of the main causes of pain, work disability and early retirement?

More than one million people in Finland have a chronic musculoskeletal disorder and another million suffer temporary symptoms of one.

But there are also studies that support that education, and the use of assistive devices, significantly reduces the risk of having musculoskeletal disorders.

Some things to consider

It is important to make a close review of the client's medical status and functional abilities. talk to your client, other assistants, family, and most important: observe them.

Encourage your client to be as independent as possible! And remember... avoid excessive loads on your own body: (25 kg for men and 16 kg for women).

If your client is not able to stand on their feet, don't do manual lifts, instead, use **assistive devices**.

Assistive Devices

There are so many assistive devices, that we could fill one manual with them, but here are some that you could commonly find in Finnish homes:

Electric Bed



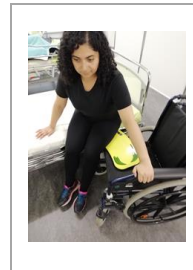
Electric beds allow you to adjust the height while assisting and helps your client to stand or sit easily.

Bed Sheets



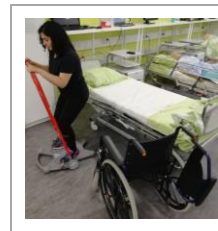
Bed sheets can be a very helpful tool for both patient and care giver. Sheets made with satin fabric in the center eliminate friction, and facilitate movement from side to side, turning or moving higher in bed.

Sliding Board



Made of many different lengths and shapes, this simple tool will help your client sliding from bed to wheelchair or back without much effort.

Turner



This device facilitates the bed-wheelchair transfers, it gives support to arms, knees and legs. It is a good tool to re-position a person further behind on a chair.

Wheelchair

Excessive weight bearing or fast turning could also be a cause of injury, for that reason some cautions should be considering while assisting a client on a wheelchair:

Maintain back in an upright position with a natural spine curve, the handles with a firm grasp and both arms slightly extended without reaching. Walk with a slow steady pace with the chair, avoiding gravel or other difficult paths. The strength to move the wheelchair, as any other move explained in this manual should come from the lower limbs.

If there is need to cross a threshold, stop the wheelchair and apply pressure with the foot at the tipping lever situated next to the back wheel, the front wheels will elevate slightly, keep moving forward with the chair.

While going up an incline ramp, stand close to the wheelchair, keep back straight, hold handles tight and push with lower limbs.

When going down an incline ramp, stand close to wheelchair, hold handles firmly, lean back slightly and walk down slowly. If the ramp is very steep it is advisable to go down backwards, to prevent the wheelchair user to fall forward.



Before the transfer

Before the transfer, it is important to plan it, create a safe environment without obstacles and keep close all the devices to be used, if more than one person is assisting define what each other's role will be. Communicate with your client, tell him what he is going to do and how you will assist, be clear and concise.

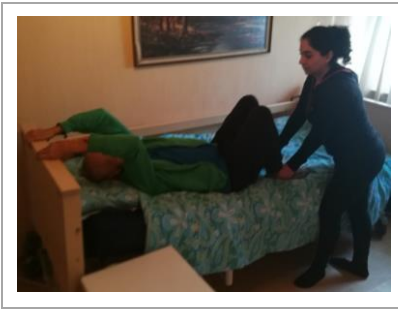
Now that you have created the plan and have everything ready... Wait for your client to start the movement, if verbal guidance does not work combine verbal control with touch and motion. Avoid lifting, instead try rolling or sliding, be as close as possible to your client without limiting the movement and assist with a wide and soft palm grip from the hips, back or where the movement feels jammed.

There are still many people out there holding clients from clothes or armpits, these methods are not used anymore, as you could cause damage to the shoulders or ending up breaking their clothes and having to change them all over again

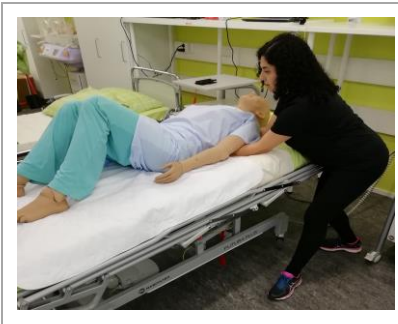
Remember that: good body control is fundamental, keeping your back as straight as possible and avoiding spine rotation while lifting, produce strength with the lower extremities while keeping shoulders and arms relaxed.

Transfers

Moving up in bed



The client pushes himself up with the legs and pulls up with his hands from the bed end while the assistant supports the feet and helps activation by pushing the legs against the mattress



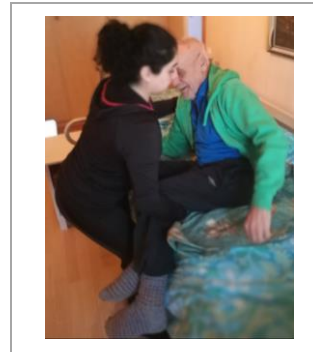
If arms are not strong enough, in the next method, the assistant puts her arms under the client's pillow and shoulders to remove the friction while client pushes himself up with the feet. Assistant keeps the back and arms straight and shoulders relaxed and does the movement by shifting the weight to the back leg.

Rolling to one side



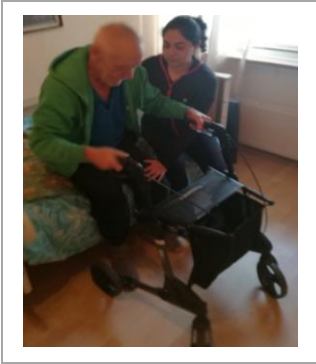
The client is guided to hold from the side rail. Flexes the client's knees and assists turning by the shoulder and/or hips.

Sitting up

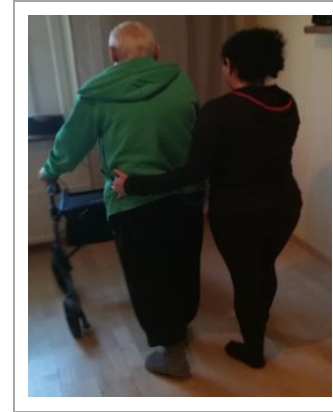


Once the client is lying on the side, reach one arm under his shoulder blades and the other behind the knees, assistant pulls the client up by doing a weight shift. Client can help or do the movement independently pushing himself up with one hand against the bed or holding the bed handle.

Standing up



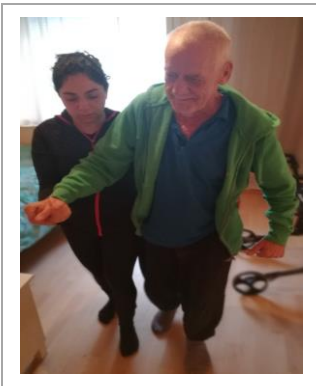
A wheeler can be a good tool to help a client stand up, put the brakes and check that it's far enough, apply slight pressure on the knee while giving a soft push to the back



A method used when the client uses an assistive device is holding the hips with both hands

In both cases, the assistant walks at the same rhythm than the client, this gives a sense of safety and helps with balance.

Walking with assistance



On the first technique the assistant walks on one side the patient, slightly behind him and supports the patient from the hips with one hand, the second hand of the assistant gives support to the patients' hand, holding it softly but firmly.

Final thoughts

In this manual, ergonomics is focused in body posture while transferring, however ergonomics is a broad topic that also covers illumination, sound, chemical, and even psychological risks.

In many occasions, all these risks are latent for us personal assistants, it is important to mention that in this case we are the ones to take care of ourselves. We are not forced to take unnecessary risks or violence in our workplaces.

At the same time, caring for our clients with empathy and respect is sometimes the only thing they need, keep in mind that many of those people have long lasting health conditions, suffer depression or abandonment, be patient and keep a smile on your face, they will be thankful for it!

Standing up after a fall

When a client falls, can be a scary experience. It is important to keep calm and verify that your client is not hurt. If he falls while in your company don't try to stop the fall, instead lower him gently to the floor. Let him recover for a moment and then follow the next steps:

Once on the floor ask him to roll on his side or assist him by flexing his knees and putting his arm across the chest, then help him onto his knees. Bring a chair close to him and ask him to support from the chair to stand up. The assistant can help by guiding the patient's hips, while standing up.



If the client is not able to stand up by himself, call the emergency number 112 in Finland, as he might be experiencing other health issues.