

# Healthy Seating

inspire joy of life



 **Netti**<sup>®</sup> *AdaptPro Family*



# The optimum seating solution

Positioning | Stability | Variation | Skin protection

**When we want to find the right solution for our wheelchair users, the ultimate goal is to ensure that the user optimizes his ADL (activities of daily living), can be active, take part in social life and age well.**

To be able to help with this, we as professionals must make sure that the user receives a wheelchair that he or she will be able to sit well in over time. This is ensured by focusing on the correct positioning, stability to maintain the good seating position as well as the possibility of variation. In doing so, we ensure pressure relief and protection of the skin, so that pressure injury is avoided.



*Just as Eskil Rønningsbakken needs to focus on the right positioning, stability, variation, and skin protection to be able to perform this balance act, our wheelchair users benefit from our focus on these elements. They are the prerequisite for being able to age well, remain healthy and be able to participate in everyday activities - to enjoy life.*



# New standard for healthy seating

With the development of the new Netti product family Netti AdaptPro, we take healthy seating to a new level. The two wheelchairs are developed for long time seating, making it possible for the user to participate in daily life. By focusing on the 4 seating elements, we ensure the users' well-being and health.



## **Netti** *AdaptPro*

---

### User profile

- Postural challenges
- Assymetries
- Loss of stability
- Tendency to slide
- Skin challenges
- Need of relaxation in chair
- Multiple sclerosis
- Stroke
- Brain injury
- Neurological diseases
- Spinal cord injury



## **Netti** *Dynamic AdaptPro*

---

### User profile

- Unwilling movements
- Restlessness
- Tendency to slide
- Skin challenges
- Brain injury
- Parkinson's disease
- Neurological diseases
- Cerebral palsy
- Huntington's chorea





Positioning | Stability | Variation | Skin protection



## Why are the 4 elements of seating important?

Having the right position in a wheelchair is one of the main factors needed to remain healthy and age well with a disability. Stability is imperative to maintain the right position. Loss of position increases the negative load on the body – the skin, muscles, nerves, blood vessels and other structures and reduces the quality of life.

Variation is important to vary this load so health can be optimized.

To ensure a comfortable long-time seating, the skin must be protected and temperature, moisture, gravity pressure, friction, shear forces thus need to be optimized.

For further information, please visit [My-Netti.com](http://My-Netti.com), where you will find a whitepaper on the 4 elements of seating.

*Eskild Rønningsbakken is performing an act of balance on the world famous boulder Kjeragsbolten in Norway. See the video on [my-netti.com](http://my-netti.com)*



# Ergonomically correct seating

**STABILITY:** Ergonomically correct positioned hinge points at the hip and knee joints, make it possible for the user to keep the correct seating position over time – also when the seating position is changed, and the back is reclined, or the leg supports are elevated. Situations that otherwise could result in shear and sliding with the risk of discomfort and skin damage.

**POSITIONING:** The optimal positioning of the user is secured through the many adjustment possibilities of the wheelchair as well as the large assortment of accessories.

**OPTIMAL USER ADAPTATION**  
to maintain an ideal seating position



Same level when reclined

## Correct position of the knee

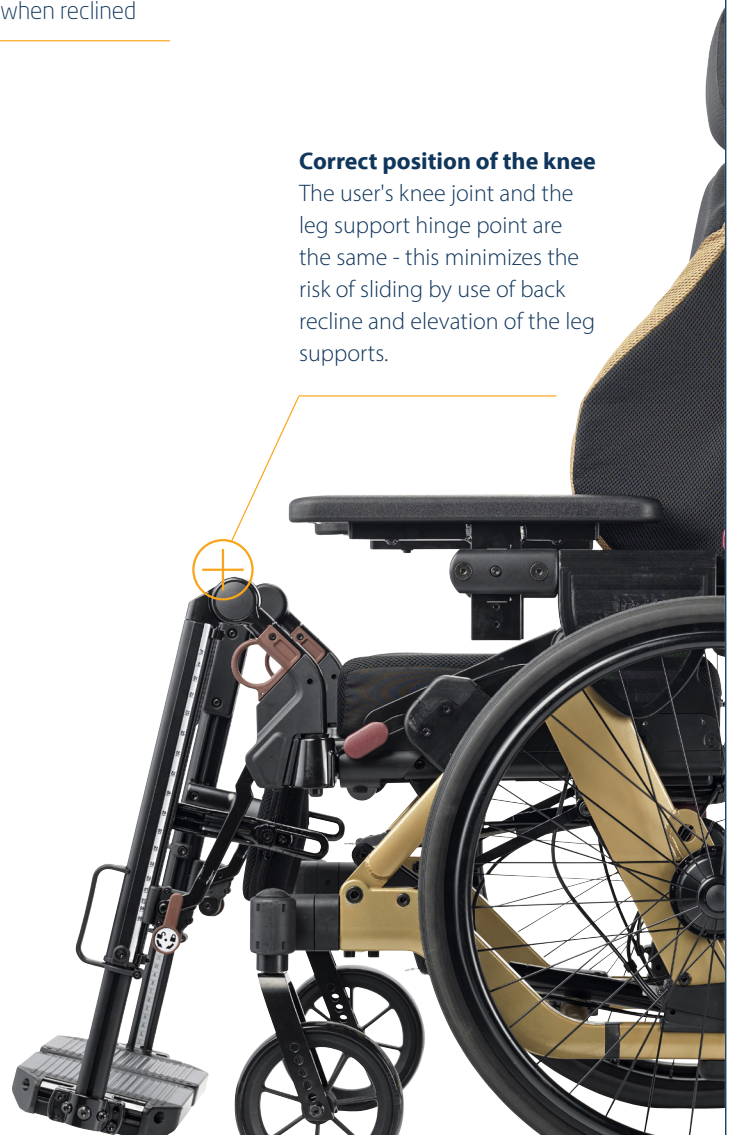
The user's knee joint and the leg support hinge point are the same - this minimizes the risk of sliding by use of back recline and elevation of the leg supports.

**SKIN PROTECTION:** Ergonomic back design with the correct hinge point at the hip, ensures that there is no friction of the skin against the back cushion when reclined, which minimizes shear forces and tissue deformation.



## Active design for self-propellers

The ergonomic design with wheels in an active position, makes it easy and comfortable for the user to self-propel.





# Improved quality of life

Our goal as seating specialists is to increase the user's ability to participate in everyday life by improving ADL (activities of daily living) as much as possible. We do this by improving the sitting quality, making it possible to stay comfortable in the wheelchair throughout the whole day.



## Allows interpersonal contact

Netti AdaptPro supports the close contact between user and carer during positioning. The handles for tilt and recline are easily adjusted with one hand, when standing by the side of the wheelchair. This enables eye contact and gives the user with a feeling of safety during positioning. The new tilt and recline handles, revolving arm supports, and readable scales make everyday life easier for family and carers whilst providing an engaging experience with the user.



**VARIATION:** Netti AdaptPro offers great possibilities of variation and relaxation in the wheelchair - and thus pressure distribution. With the readable scales you can easily adjust to the optimal position.



# Enable long-time seating

The aim of a good seating solution is to ensure that the user can stay comfortable in the wheelchair during the day. An important factor is to ensure that the skin remains healthy, and no pressure injury develops.

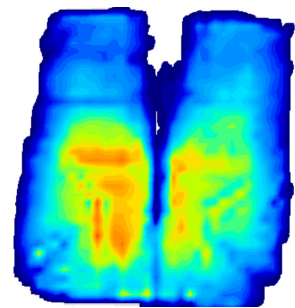
**SKIN PROTECTION:** With the development of Netti AdaptPro, we have developed several solutions that aim to ensure a healthy skin. We have focused on minimizing peak pressure, distribution of pressure, optimizing microclimate, reducing shear forces and cell deformation.

- Seat plate well and seat cushion ensure pressure relief under the sitting bones.
- Seat plate and cushion design support stability and minimizes sliding.
- Heat and moisture management with a ventilating seat plate and ventilating 3D cushions fabric.
- Ergonomically correct hinge point at the hip that reduces shear forces on the back when the chair is reclined.
- Ergonomic hinge points positioned at the knee joints reducing sliding and shear forces.

**STABILITY:** Many design solutions ensure that the user is able to remain in the intended seating position over time. This reduces the sliding forward of the user, and the frequency of repositioning.

A seat plate well ensures pressure relief under the sitting bones, helps decrease long-term skin risk and aids seating stability. The ventilating design helps keep skin cool and dry. The seat depth is easily adjusted without replacing parts.

**AVOID PAIN**  
Better skin protection  
and pressure  
distribution



## 20% lower peak pressure

With the new design of the seat plate, we have obtained more immersion and a significantly lower peak pressure. Furthermore, the pressure has moved forward, away from the sitting bones and tail bone.







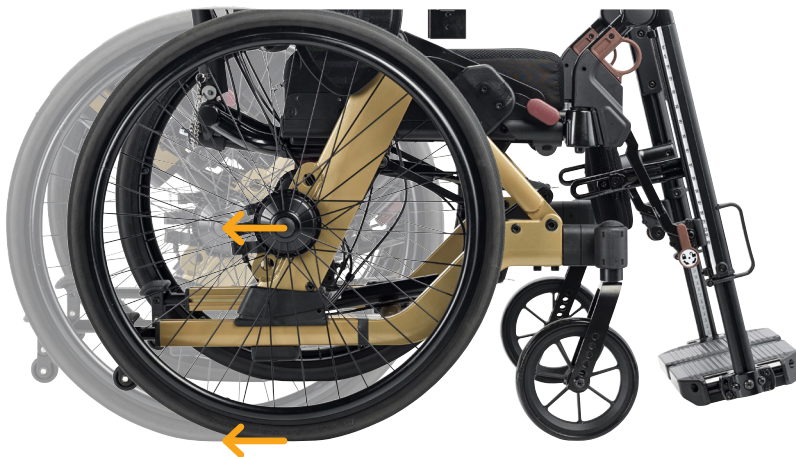
# Innovative solutions

The Netti AdaptPro Family includes a number of brand-new inventions for better seating quality, including several patents.

## Included solutions

- Built-in back extender
- Car fasteners for occupant restraint system
- Mounting rail for hip belts
- Drum brakes for carers
- Seat plate with pressure reduction properties
- Easy-to-operate handles for tilt, recline, push bow, arm and leg support
- Height adjustable and space-saving push bow
- Wheelchair stability when tilted
- Ergonomic hinge points for less sliding and shear forces
- Bio-mechanic arm supports providing maximum support when the wheelchair is tilted/reclined
- Solid, easy-to-adjust Netti Grandis leg supports with the patented solution for easy mounting/dismounting
- Netti Dynamic AdaptPro with dynamic seat and back as well as optional dynamic leg and head support

## Compact yet stable



### 90 mm adjustment for great stability

The wheel footprint automatically increases by 90 mm when the wheelchair is tilted.

## Compact and easy to drive



Turning radius  
from only 500 mm\*



## Solid Netti Grandis leg support

Combining robust solidity with elegant design. Available with foot plates, foot board, foot box or as amputation support. Patented extension pieces for easy mounting.



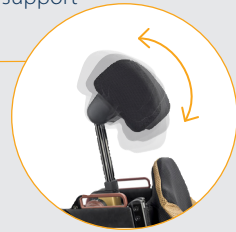
## Revolvable arm supports

Makes transfer in and out of the chair easy - and allows the user to get close to a table.





Built-in back extender.



Netti Relaxo head support provides good support when reclined.



Bio-mechanic arm support that follows the seat angle and secures support for the arm all the time.



Push bow folds down/up making Netti AdaptPro compact and adaptable to the carers height.



Patented frame design making the Netti AdaptPro extraordinarily stable when tilted and yet compact and easy to drive.

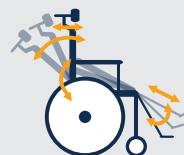
Seat plate ensures ideal micro climate and pressure distribution and is also easy to adjust in depth without the need for extra parts.



Patented solutions



Modular



Dynamic options



Crash tested



## Netti Dynamic AdaptPro

# Allowing room for movement

When the user has extension spasm or involuntary movements of the hip/back, legs and eventually the neck/head, a dynamic wheelchair is the optimal solution. Netti Dynamic AdaptPro combines the well-known documented effects of the Netti Dynamic System with the enhanced stability and compact design of the Netti AdaptPro.



### WELL-KNOWN EFFECT

Reduced muscle tone,  
pain and risk of  
pressure ulcers

Involuntary movements often cause challenges for wheelchair users as well as the caregivers. When sliding forward and losing the correct position, the risk of skin damage, discomfort as well as the need of repositioning are increased.

#### Documented effects of dynamic solutions

Clinical tests show that dynamic options increase the user's quality of life, allowing them to spend longer time in the chair in a good seating position, thus enabling them to engage more in everyday life

#### Here are some of the well-known effects:

- Reduce risk of pressure ulcers
- Less pain
- Better lung function

- Maintenance of correct postural position
- Limited forward sliding
- Reduction in muscle force generated by the user and pressures exerted on the wheelchair

#### Why choose a dynamic solution?

- Allow movement
- Distribute forces
- Increase postural control
- Minimize involuntary movement
- Reduced wear and tear of the wheelchair
- Increase seating time in the wheelchair
- Skin protection by reducing sliding, pressure and shear forces
- Optimized for eating, drinking and respiration functions
- Reduced pressure on the user's back



## Reduced need for repositioning

The dynamic seating system of Netti AdaptPro will absorb the energy of the movements and guide/ assist the user back to the starting position. This will improve the users postural control, overall stability and everyday functions.



### Dynamic back support

Supporting the user's back in the original position when tone decreases, and helps the user maintain the optimum seating position, prevents sliding and shearing and lowering the need for repositioning.



### Dynamic leg supports

The user's movements will be supported throughout the movements and when tone decreases, the lower extremities are guided back to their resting position. The leg supports accommodate the extension movement in the knee joint, and supports the pushing movements along the tibial axle and the flexion-extension movements of the feet.



### Dynamic head support

The Netti Dynamic head support will adjust to the head and neck movements of the user. The stress on the back and neck of the user is reduced.

### Dynamic seat unit

The dynamic seat unit allows for hip extension and the user is guided back to the original seating position. In this way, we reduce shear and pressure forces, which are some of the main factors causing pressure injury.





	Netti AdaptPro	Netti Dynamic AdaptPro
Seat width (mm)	350, 380, 400, 430, 450, 500	350, 380, 400, 430, 450
Total width with standard wheels (mm)	Seat width + 232	
Seat height with 24" wheels - from floor to seatplate. (mm)	417-447	
Seat depth (mm)	SW 350-400 = 355-455 SW 430-500 = 405-505	
Back height (mm)	515-625	
Max. user weight (kg)	135	
Max. user weight for car transport (kg)	135	
Wheel footprint (mm)	375 (tilt -3°) to 465 (tilt 30°)	375 (tilt 0°) to 465 (tilt 30°)
Tilt angle	-3° to 30°	0° to 30°
Recline angle	87° to 133°	
Lower leg support length (mm)	Netti Grandis leg supports: 320-680 Dynamic leg supports: 350-450 (450-550)	
Arm support height - from seatplate to arm pad (mm)	265-375	
Overall length - with back and leg supports vertical and seat horizontal (mm)	1280	
Folded length ex. leg supports (mm)	800	
Total height (mm)	958	
Turning radius without leg supports (mm)	500-560	
Front wheel size	7"	
Main wheel size	24"	
Drum brakes	Standard	



Alu Rehab ApS - part of Meyra Group  
 Kløftehøj 8  
 DK-8680 Ry  
 Denmark

T: +45 87 88 73 00  
 M: info@My-Netti.com  
[www.my-netti.com](http://www.my-netti.com)



*inspire  
joy of life*