Pressure Redistribution

Individuals who use wheelchairs are at an increased risk of

pressure injuries

due to factors such as prolonged sitting, inability to redistribute pressure independently, postural asymmetries, sensory impairments and spasticity.

Clinical Recommendations

The International Practice Guidelines for the Prevention and Treatment of Pressure Ulcers/Injuries: Clinical Practice Guideline (CPG), recommend frequently repositioning to redistribute and/or offload the pressure in the pelvic area, regardless of the type of support surface that has been used.
EPUAP/NPIAP/PPPIA 2019

Power Standing Wheelchairs

A power standing wheelchair enables the user to independently reposition into a standing position to offload the pelvic area.

User Benefits

- Reduced pain and pressure
- Increased independence

Bladder, Bowel and Digestive Functions

Incontinence, bowel issues and

digestive issues

are common secondary complications among individuals using a power wheelchair.

Clinical Recommendations

Studies in able-bodied individuals without bowel dysfunction show that food empties from the stomach best when individuals alternate between sitting and standing, and worst when individuals just sit, stand or lie down.

Power Standing Wheelchairs

A power standing wheelchair may improve bowel, bladder and digestive function, and also provides users with autonomy, reducing their reliance on family and caregivers.

User Benefits

- Improved bladder and bowel function
- User independence

Range of Motion and Muscle Length

Factors which may decrease a person's

range of motion (ROM)

are common in wheelchair users.

Clinical Recommendations

When a joint is moved through the full available ROM on a consistent basis, limitations in movement and contractures can be avoided.

Loss of motion can result in a variety of difficulties including pain and discomfort, and limited functional independence.

Power Standing Wheelchairs

A power standing wheelchair can provide a person with movement through their available ROM, and may help increase their range of motion and muscle length.

User Benefits

- Retain ROM and muscle length
- Reduced pain and discomfort
- Maintain independence

Bone Health

For individuals without a disability, weight-bearing activities and vigorous exercise are associated with an increase in

bone mineral density (BMD)

when carried out for at least 1 hour per day and 4-5 days per week.

Clinical Recommendations

Standing wheelchairs promote weight bearing (75% of body weight) comparable to those of other standing devices.
Yang et al. 2014

Power Standing Wheelchairs

Conclusions from systematic reviews on the evidence of standing with different devices reported on studies that showed either maintenance or improvements in BMD.
Glickman, Geigle, and Paleg 2010; Newman and Barker 2012; Paleg and Livingstone 2015

User Benefits

- Perceived positive impact on bone health
- Reduced rate of loss of BMD

Spasticity

Spasticity is a common

secondary complication

amongst individuals using power wheelchairs.

Clinical Recommendations

Treatment of spasticity is imperative to improve quality of life and minimise medical complications.

When not monitored or managed, it can have a negative impact on posture, balance, comfort, coordination, range of motion, transfers and activities of daily living.

Power Standing Wheelchairs

Research indicates that power standing wheelchairs could decrease spasticity in lower extremities.

User Benefits

- Decreased spasticity
- Improved comfort

Social Participation

Traditionally, the designs of living and work spaces have been based on the assumption that a person is completing an activity while

standing,

e.g. kitchen worktops and ovens, bathroom sinks, cupboards, door handles, blackboards, food shelves, counter tops, tables and light switches.

Clinical Recommendations

Wheelchair users typically require home modifications which can be expensive. When considering a power standing wheelchair, it is worth considering cost implications as well as the long-term health benefits of a power standing wheelchair compared to home modifications or the prescription of additional equipment.

Power Standing Wheelchairs

Multiple studies have shown that power standing can be beneficial to participation in multiple settings and environments, including at home, at work and in social and educational settings.

User Benefits

- Improved participation
- Increased satisfaction

Daily Activities

Power standing makes it easier to take part in

activities of daily living (ADLs)

which require individuals to be in an upright position.

Clinical Recommendations

Improved reach and vision make it possible to be closer to higher placed objects and to view the items at the same height. In addition, a reduced need for over-shoulder reaching could also lessen the risk of shoulder pain or injuries. Standing has the capacity to increase participation and potentially reduce the need for formal or informal care.

Power Standing Wheelchairs

Power standing increases the ability to independently move into and out of a standing position, complete tasks while standing, drive while standing and enables the user to sustain a standing regimen. Power standing has the potential to enable someone to increase their function across multiple environments and activites.

User Benefits

- Increased participation and function within ADLs
- Increased independence

Quality of Life

Requiring a wheelchair for mobility can be challenging. Limiting factors can have a

negative impact on quality of life and independence

Clinical Recommendations

Quality of life and independence may be improved by an increased understanding of the individual's needs, values and goals when providing mobility solutions.

The impact of standing on quality of life can often be overlooked, however increased function, participation and independence have been shown to have a positive impact.

Power Standing Wheelchairs

Studies have found that standing could have a positive impact on independence.

User Benefits

- Increased independence
- Improved quality of life

To find out more about Permobil Power Standing Wheelchairs and to access the in-depth clinical guide visit

permobil

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Why Permobil?

Designed for independence

At Permobil we put the people who use our products first. Our purpose is to innovate for individuals.

Our main focus will always be on the users of our products and services - bringing independence to them by providing the best solutions for their needs.

Power Standing with Permobil

Permobil power standing wheelchairs provide individualised standing with a stand angle of up to 80°, enabling optimal extension of the hip, knee and plantar flexors.

The ability to define the intermediate positions of the standing sequence enhances user comfort during sit-to-stand and stand-to-sit transfers.

The combination of the individualisation of the standing sequence and the anti-shear mechanism enables an optimised sit-to-stand transfer, providing the user with more control over the decision of when to stand independently.

The programming of positions allows the user to easily retrieve functional positions for regular activities of daily life.

A quick-reference clinical guide to:

Power Standing Wheelchairs

permobil

M Corpus® VS

Mid-wheel Standing

M Corpus® VS

The M Corpus VS combines a compact base and suspension that provides stability, traction, and ride comfort for a best-in-class power standing experience with a mid-wheel base.

Designed with the user in mind, it enables easy adjustment of the standing sequence and positioning in real time.

- Mid-wheel, compact base
- Functional drive speeds when standing
- Fully customisable standing sequences
- Swing-away or single-post knee support options
- Adjustable chest support
- Full range of power tilt, recline, and legrest elevation
- Low, functional seat-to-floor heights
- Articulating power footplate

For more information on Permobil Power Standing Wheelchairs, contact your local Permobil representative.

F5 Corpus® VS

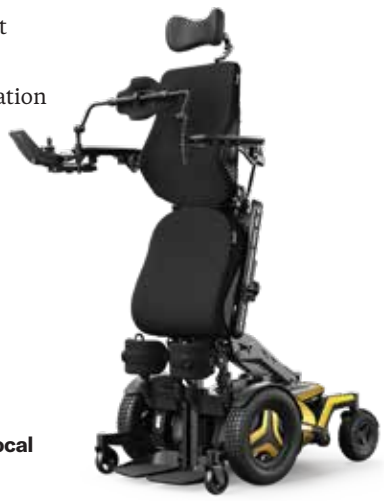
Front-wheel Standing

F5 Corpus® VS

The F5 Corpus VS has a fully independent suspension on all wheels offering comfort, traction and stability, especially beneficial for active outdoor driving.

Easy adjustment of the standing sequences allows the user's position to be optimised while the light, swing-away knee supports offer improved comfort and flexible on-chair storage for greater independence.

- Front-wheel base for enhanced stability and ride comfort
- Functional drive speeds when standing
- Fully customisable standing sequences
- Swing-away or single-post knee support options
- Adjustable chest support
- Full range of power tilt, recline, and legrest elevation
- Low, functional seat-to-floor heights
- Articulating power footplate



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