

SoftWheel's innovative in-wheel suspension technology can help reduce pain and provide a more comfortable ride

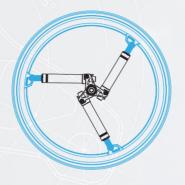


Patented In-Wheel Suspension System



In-Wheel Suspension

3 suspension arms are built inside the wheel and compress to absorb shocks



Rigid Rim

Wheel rim is always rigid & strong, while the suspension arms & hub compress to provide shock absorption



Automatic Actuation

Suspension arms automatically compress when encountering an obstacle or rough terrain, and remain rigid & strong over flat surfaces



360° Suspension

Arms are set equidistant around a central hub to provide shock absorption-no matter the angle of impact

Rapid Shock Reset

Suspension arms immediately reset and return the wheelchairand rider, to a level ride Ø28 - 0.021 DIMENSION AFTER COATING SEE NOTE 3,5

SoftWheel Features



#01

Dual system suspension with high & lowfrequencies

#02

Silent mechanism

#03

Quick axle release

#04

IP55: protected from dust & water

#05

Slim rim with lighter design

#07

Anodized aerospace aluminum

Shock Absorption That Actuates Only When You Need It

The wheel rim always remains rigid, while the suspension arms & hub shift to provide shock absorption only when needed—when encountering an obstacle or rough terrain.

This leads to a smoother, more efficient ride over all types of terrain.











Whole body vibrations are a health concern for wheelchair riders

01

Long-term exposure to vibrations has been demonstrated to have a negative impact on people's health & comfort 02

Clinical studies
have shown that
wheelchair riders are
exposed to vibrations
that exceed the
recommended
exposure limits

03

Health risks associated with vibrations for wheelchair riders include lower back pain, effects on the spine, and muscle fatigue

References:

"Health risks of vibration exposure to wheelchair users in the community," Garcia-Mendez Y, Pearlman J, Boninger ML, Cooper RA; The Journal of Spinal Cord Medicine 2013 Jul; 36(4):365-375

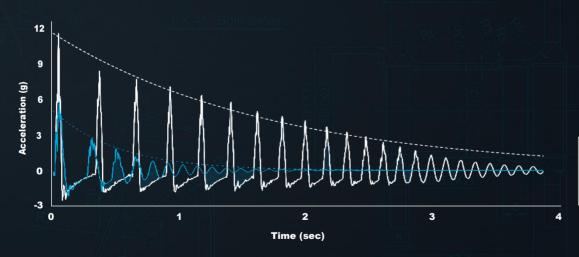
"Analysis of vibrations induced during wheelchair propulsion," VanSickle DP, Cooper RA, Boninger ML, DiGiovine CP; Journal of Rehabilitation Research and Development 2001 Jul-Aug; 38 (4):409-421

SoftWheel Reduces Vibrations

The innovative suspension & damping technology disperses the impact energy, thereby shortening the impact duration and shock magnitude transferred to the rider

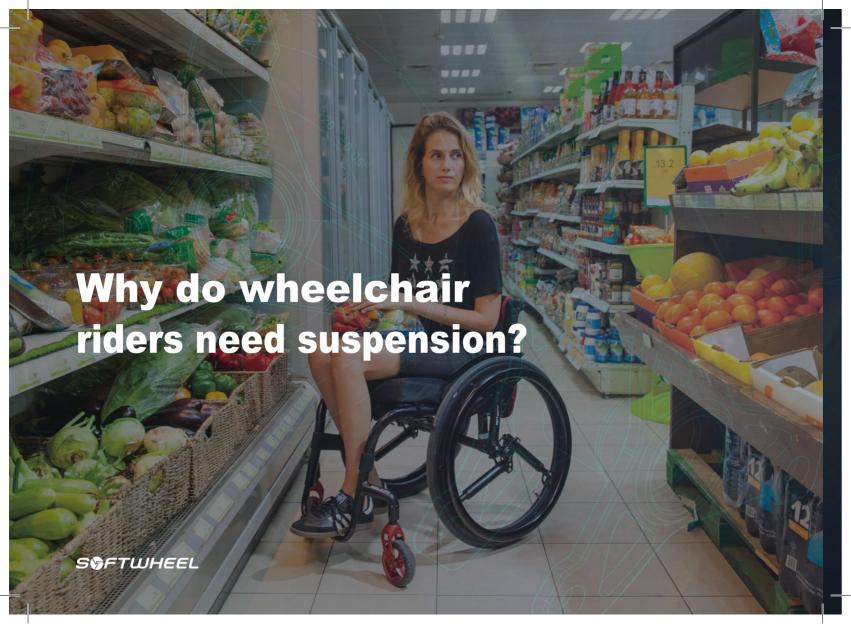
Fewer vibrations are therefore transmitted to the rider, leading to a smoother, more comfortable ride

SoftWheels are more energy efficient, helping to maintain forward momentum, which can reduce fatigue





Drop Test from 15 cm (standard curb height)
SoftWheel vs. Standard Rigid Wheel: Acceleration Over Time





Can help reduce back & neck pain, and decrease fatigue at the end of the day **SAFETY**



Keeps the rider steady while going over bumps and remains stable & rigid over flat terrain COMFORT



Absorbs shock & vibrations on all types of terrain, providing maximum cushioning



Can provide riders with:

#01

Less Pain

#02

Greater Comfort

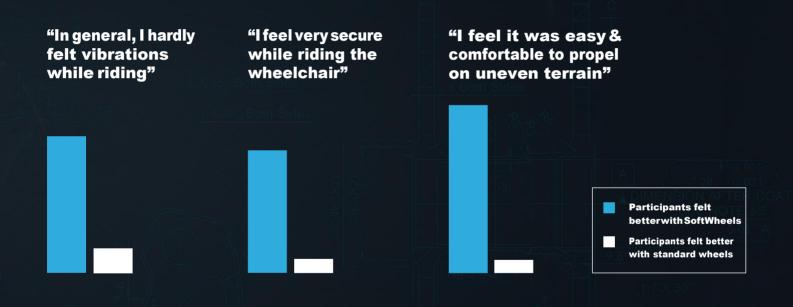
#03

Increased Independence

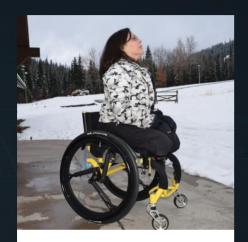
#04

Better Outdoor Mobility

Clinical research shows SoftWheel helps improve health, safety, and comfort

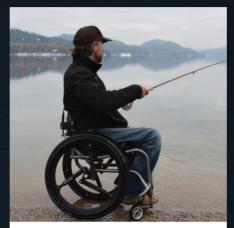


Softwheel makes a real difference in people's lives



"I had immediate relief from lower back pain after switching to SoftWheels"

Kimberly



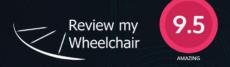
"For me, SoftWheels are freedom"

David



"Since I've started using SoftWheels, I don't feel any pain"

Nataly



"A SignificantRide Improvement"

"Soft-roading is a breeze, moving overrougher ground without any significant sudden jolts...

It reduces the impact transferred from frame to spine...

SoftWheels offer a working professional a significant ride improvement."

Review My Wheelchair April 2018

SFTWHEEL





"A Softer Ride"

"Apretty impressive feat of engineering...

the ride did become noticeably softer. All the bumps, cracks and drops on my daily pushing routes were noticeable smoothed...

By switching wheels, my chairfelt like it had built-in suspension."

New Mobility
November 2018



Certifications







CECertificate

FDA-Class 1

CDRIS Registration and Listing Office

TÜV SÜD

SOFTWHEEL



For maximum performance, SoftWheel is available in 4 stages, customized to a rider's weight

Stage	Weight (kg)	Weight (lbs.)
A	up to 50kg	up to 110 lbs.
В	50 - 70kg	110 - 155 lbs.
С	70 - 90 kg	155 - 200 lbs.
D	90 - 136 kg	200 - 300 lbs.

Size: 24" & 25"

Hub: AL 6061 T6; high precision CNC

Rim: AL 6061 T6

Bearing diameter: U.S. or

European standard

Load limit: 136 kg (300 lbs.)

Wheel weight: 1.8 kg (4 lbs.)

Drum Brake: Optional



For more info visit www.49bespoke.com

SOFTWHEEL

Wheel Reinvented



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