

# The Natural-Fit<sup>®</sup>



We Don't Make the Wheelchair.  
We Make the Wheelchair Better.



**Why Would Anyone Settle for Less?**



**The average person pushes on his/her wheelchair 2000-3000 times per day.**







# Problems with the Standard Round-Tube Handrim

## Standard Round-Tube Handrim Issues:

- Poor ergonomic fit to the hand
- Small surface area for gripping
- Requires unhealthy “pinch grip”
- Gap between the rim and the wheel
- Handrims are used for propulsion and braking
  - Round-tube handrims are poorly designed for both



Pinch Grip with Standard Handrim



# The Result of Poorly Designed Handrims

## Problems with Poor Design:

- 60% of wheelchair users grip their tire
  - Results in dirty hands, cuts and infections
- Pinch grip strains hands and wrists
- 30%-70% of users have Carpal Tunnel Syndrome
- The high prevalence of pain leads to:
  - Decreases in quality of life
  - Increases in healthcare costs



Hand on the Tire



# Natural-Fit Use Leads to Positive Outcomes

## Benefits of the Natural-Fit:

Reduced fatigue, pain, and injury

- Eliminates pinch grip and pushing on the tire
  - Cleaner hands, less cuts and infections
  - Eases pain in the hands & wrists
- Better Performance and efficiency (less effort)
- Large smooth surface for greater control when braking

Eliminates fingers catching between rim and wheel





# Teal Sherer

“The Natural-Fit makes pushing so much easier, and feels so much better on my hands than the narrow little rims I had before.”

- Teal Sherer







# Direct Evidence of Benefits: Objective Testing

## Highlights of Research published in the Journal of Spinal Cord Medicine and Assistive Technology:

- When using the Natural-Fit, wheelchair users generate the same power, with lower grip forces
- 71%-81% reported less pain in the hands and wrists
  - Reports of reduced pain were more pronounced as time using the Natural-Fit increased
- 67% reported that daily tasks were “less work”
- Each of 8 activities of daily living were perceived, on average, as less difficult





# John Tuzzolino

"I've been using my Natural-Fits for years and haven't had any of the wrist or forearm pain that I used to have."

- **John Tuzzolino**







# Natural-Fit Quick Facts I

- 80% more surface area for gripping than a standard handrim, yet weighs just 12 ounces more
- Oval and thumb piece create the ergonomic grip of the Natural-Fit

## Oval Options:

- Natural-Fit uses the original, larger profile oval
- Natural-Fit LT uses reduced weight, smaller profile oval (20% less weight than original)

## Thumb Piece Coating Options:

- Standard Grip: Powder coat, lower friction surface
- Super Grip: Copolymer, higher friction surface





# Tammy Wilber



“Since I no longer push on the tires I don’t have cracks on my thumbs or calluses on my palms.”

- Tammy Wilber





# Natural-Fit Quick Facts II

- Fits 20", 22", 24", 25" & 26" wheels
- Available through your local dealer or from all major wheelchair makers (just check the Natural-Fit box on their order form)
- The Natural-Fit and LT are designed for a person with good hand function (not intended for quads)







# John Ruf



"Thanks for making such a big difference with every push I take."

**-John Ruf**





# Summary - The Natural Fit: Why It Matters

- Wheelchair users push on the handrim 2,000-3,000 times a day
- A handrim that doesn't fit (like a shoes that doesn't fit) has costly, negative consequences
- The Natural-Fit is specifically designed to fit the human hand

## Significant Outcomes:

- Reduced pain in the hands and wrists
- Improved comfort and increased function
- Extends ability to remain in a manual wheelchair
- Eliminates grabbing the tire and promotes cleaner hands

**The Natural-Fit - "How much farther would you go?"**