



HANDRIM CLINICAL JUSTIFICATION

Handrims (or pushrims) make a huge difference in how a user interfaces with their wheelchair. Knowing the properties, structures, and materials of handrims can help guide the clinician and user to what will work best in their situation.

Standard handrims are a single round tube with about 3/4 inch diameter. They are the lightest handrims, but they are not ergonomic as they force the user's hand to tighten around it, potentially putting strain on the carpal tunnel and other areas of the hand, wrist, and upper extremities.

Selecting an upgrade in handrims, though not always fundable through many funding programs, can make a huge difference in function and prevention of pain and possibly upper extremity injury. The goal for any clinician and client is to evaluate the advantages and disadvantages and choose along the continuum of options.

CLIENT IMPAIRMENTS/ ENVIRONMENTAL NEEDS

PROPERTY RECOMMENDATION

BRAND/MODEL AVAILABLE

- Grip weakness
- Hand weakness
- Limited hand function
- Hand paralysis/paresis
- Decreased hand/UE sensation
- Limited ROM in fingers to grasp
- Limited muscle efficiency
- Hand/finger abnormalities

High Friction Handrim

Newton Air Grip
Plastic Coated
Surge
Surge LT
SIMI H
NOVA H

- Larger grip/grasp surface
- Larger hand size
- Improved comfort for user in grasping handrim
- Hand/wrist pain/UE discomfort
- Energy conservation (decreasing peak muscle activation)

Larger Surface Area

Surge
Surge LT
Natural Fit
SIMI H
NOVA H

- Hand/wrist pain/UE discomfort
- Better distribution of pressure and forces throughout user's hand

Ergonomic

Natural Fit
Optimum H
SIMI H
NOVA H

- Limited UE strength
- Limited muscle efficiency
- Smaller hand size

Lightest Weight

Aluminum anodized
(standard hand function)
Newton Air Grip (high friction)
OPTIMUM H (ergonomic)

References: <https://pubmed.ncbi.nlm.nih.gov/17236472/> <https://pubmed.ncbi.nlm.nih.gov/17141646/> <https://www.sciencedirect.com/science/article/abs/pii/S0169814114001346>



T 1 866 650-6555

F 1 888 966-6555

motioncomposites.com