

Selecting Wheels and Tyres for Ultra-Lightweight Manual Wheelchairs

Tips & Advice

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Why This Matters

Wheels are an important consideration for active wheelchair users. At times, quotes submitted to Enable for ultra-lightweight manual wheelchairs, include wheel and tyre upgrades without a clear explanation of why they are needed.

Ultralightweight wheelchairs are designed to have lightweight wheels and changing the wheels to a higher cost option with very little weight difference, is unlikely to lead to a significant increase in the wheelchair user's function. If you are recommending these upgrades, it's important to explain the clinical reasons in your report or advice request.

Making Propulsion Easier

It is common to think that lighter wheels and tyres will make it easier to push the wheelchair. However, just reducing wheel weight may not make a big difference for some users. Many other factors play a role like:

- How the wheelchair is set up/ configured
- Where the weight sits on the frame/ centre of gravity
- The type and inflation of the tyres
- The setup and size of the caster wheels
- The addition of accessories like push rims, sideguards, footrests and bags

All of these can affect how easy it is to propel the chair.

Lifting the Wheelchair

Sometimes lighter parts are requested to make lifting the wheelchair easier, especially for people with limited arm strength or when loading it into a car. In these cases, lighter wheels might be helpful. But keep in mind, a small weight difference such as a few hundred grams, might not make lifting much easier and could come with trade-offs.

Best Practice Tips

To make sure the wheelchair works well and is safe to use:

- Start by considering the standard components
- Look at the whole picture, including how the chair is used, where it will be used, and what accessories are required
- Only recommend upgrades if they are essential, and if you are recommending these, provide a clear clinical rationale in your report
- Carefully review supplier quotes before submitting

Resources

- <https://www.resna.org/Portals/0/Documents/Position%20Papers/UltraLightweightManualWheelchairs.pdf>
- <https://www.acc.co.nz/assets/contracts/mres-og.pdf>
- <https://www.enable.co.nz/acc-assessors>
- [Manuals and practice guidelines | Disability Support Services](#)
- <https://www.enable.co.nz/ems-assessors>