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Dare to Shape Up!

Ability Based Seating™

Increasing sitting tolerance over time

A multi-funtional wheelchair is often the next step after an all-round wheelchair. This can be a big step to take, looking at your own ability to be active and mobile. The need to alternate rest and activity is the basis for the multi-funtional wheelchair. Often with an over-emphasis on various resting positions.

How is it possible to strike a balance between using the user's ability and at the same time restricting use of resources to what is important? We don't want to hasten passivisation, but to create better conditions for activity, according to ability. The back support plays an important role in giving support, both for activity and for rest.

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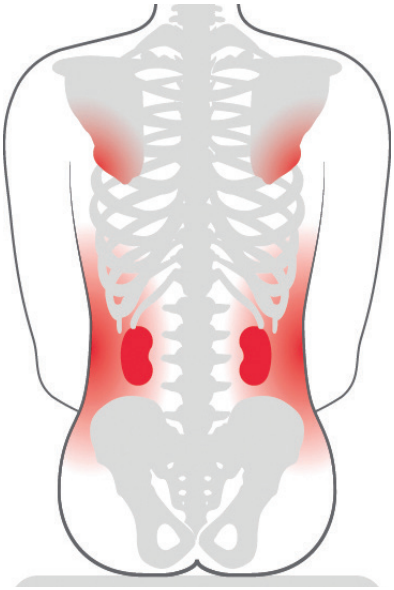
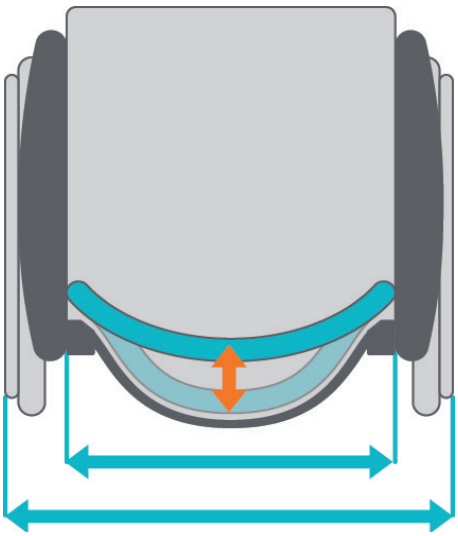
Comfort is a perishable article

There's no reason why what's fine at the moment needs to be fine a little later. Sitting in a wheelchair with little or no opportunity to influence your own sitting position can have devastating consequences. A seat unit which offers a large contact area and the possibility of variation through seat tilting and back reclining increases the user's acceptance of sitting with maintained comfort and being active; in other words, it increases their sitting tolerance over time.



Pain zones

The areas illustrated (the lower parts of the shoulder blades, the chest and the upper edge of the hips) are sensitive to pain. Concentrated pressure in these zones can be incredibly painful, and should be avoided. Musculature and tissues give each human being his or her unique shape, which requires space. Point pressure on a soft structure has a detrimental effect on blood circulation, innervation and, of course, comfort.



Make full use of the back support

In exactly the same way as the seat, we have maximised the width of the back support in relation to the total external dimension. The back support also makes it possible to work with the shape in depth, which gives a good basic support for users with a round back and pronounced kyphosis. In this way we minimise the need for adjustment of the width and seat depth.

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No compromises!

An important aim of multi-funtional wheelchairs is to provide a good resting position. Because of this, the total weight of the product and the support for the pelvis in the active position are usually given a lower priority. We believe that the active position is equally important as the resting position. On the following pages we describe the construction of a back support which makes no compromises on either the resting position or active sitting.

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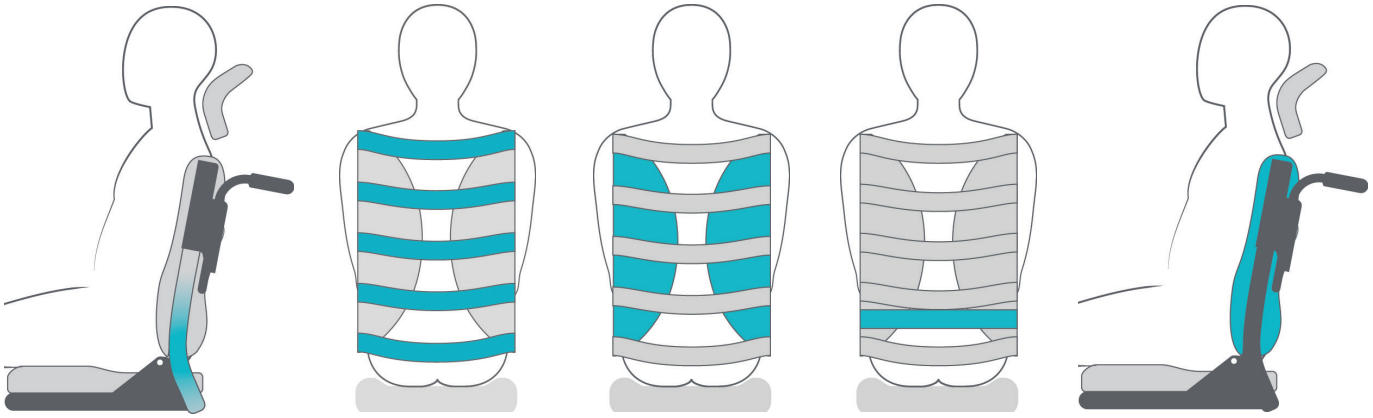
Construction of the back support

The Prio back support consists of back support profiles, adjustable back support upholstery with supporting shields, dynamic pelvic support and a flexible back cushion.



1 Back profile
2a Adjustable straps
2b Shields
2c Dynamic pelvic support
3 Backrest cushion

Active back profiles

The back profiles are inclined downwards. This shape has two functions. Firstly, it moves the joint between the back support and the seat forwards, so that it harmonises better with the user's hip joint. Secondly, the incline moves the adjustable upholstery forward, which makes an effective pelvic support possible.

Adjustable back straps and shields

The back support upholstery has five generous adjustable straps which permit great position variations. The back shields gently take up the pressure from each individual strap, giving the user welcome relief in the resting position.

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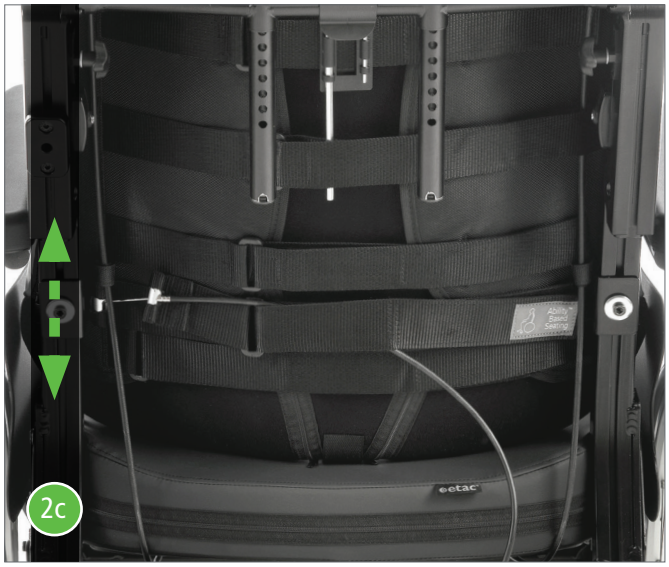
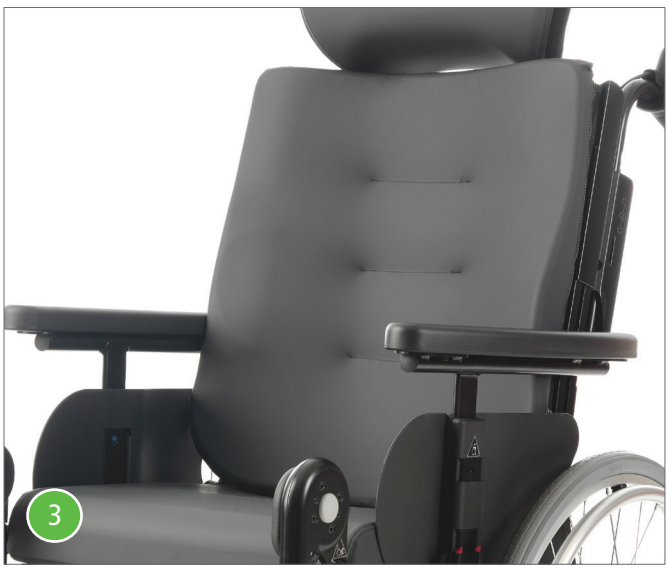
Back Shields

Prio's back upholstery is fitted with shields. These have made it possible for us to reduce the thickness of the back upholstery in order to make it flexible, without worrying that the straps would subject sensitive zones to pressure.



Dynamic pelvic support

As well as the five adjustable back straps, Prio has a dynamic pelvic support which is height adjustable and positioned behind the back straps. The strap should be on a level with the upper edge of the pelvis (SIPS).
The dynamic function of the pelvic support is regulated automatically when the angle of the back support is changed.



Back Cushion

The soft back cushion is attached to the back profiles with zips, and is made slightly over-sized so that it shapes itself exactly to the dynamic function of the back support and the shape created with the back straps.

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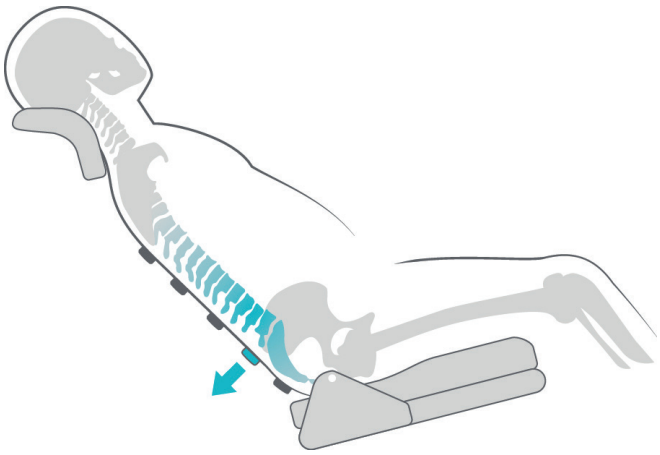
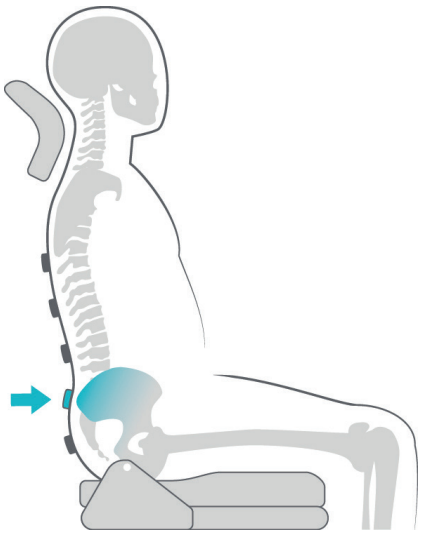
Adjustable upholstery with dynamic pelvic support

The adjustable upholstery consists of five straps with a generous range of settings, plus an additional dynamic, height-adjustable pelvic strap. The dynamic pelvic support is active when the user is sitting in an upright position. In a resting position, when the back support is also inclined backwards, the pelvic strap eases the tension, giving the user a relaxed position.



In the resting position, the tension of the pelvic strap is released.



When the position is again adjusted to upright, the pelvic support is re-activated.

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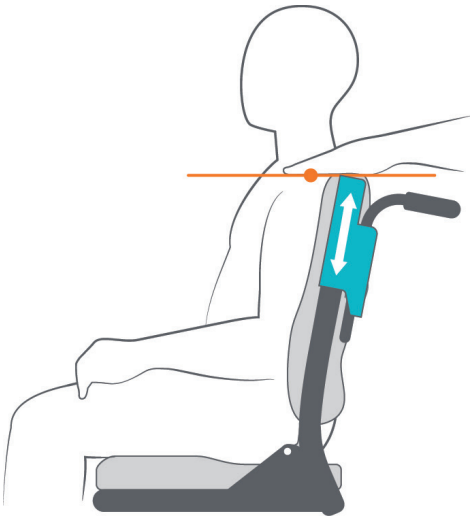
Height adjustment of back support

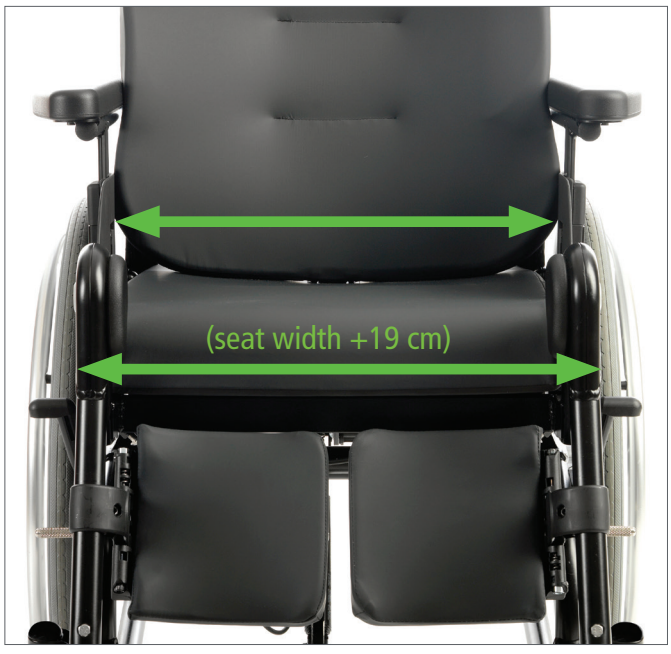
The height is adjusted simply on the back profiles with the key provided, which can be found on the back support. If the user can lean forward, the height adjustment can be carried out with the user sitting in the chair.

We recommend that the height of the back support is adjusted so that the cushion comes to the level of the user's shoulders. In this way the whole of the shoulder blades receive comfortable relieving support.

According to the anthropometric measurements* the distance from buttocks to shoulder varies between 47 and 66 cm for people who are 140 – >190 cm. Prio's back support is adjustable between 55 and 70 cm measured from the seat plate to the upper edge of the back profiles. With a seat cushion 5-7 cm in thickness, the back support can be adjusted to the shoulder height of the great majority of users.

** Read more in Etac Prio Newsletter no. 2*





Prio is a slim, low-weight chair with good balancing capacity and active pelvic support. All to make activity easier.

Weight, width and balance make activity easier

The position of the rear wheels and the total weight of the wheelchair are two important parameters for enabling the user to be active in the chair. They can make the difference between being passive and being able to manoeuvre the chair independently. Prio offers three balance positions. Because Prio's total width only adds 19 cm to the seat width, the rear wheels are close to the user. In the upright position, the dynamic pelvic support gives stability, which is essential for activity. Complete with angle-adjustable leg supports, seat cushion, head support and arm supports, the Prio weighs 33 to 34 kg depending on the chair width. The low weight also makes forward propulsion easier!

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Adjusting position makes a big difference

We think that small changes can mean a lot for being able to make better use of available strength in the right way. A sitting position which gives the pelvis, back and head comfortable support and good positioning can help the user to utilise their strength to be more active and can also facilitate forward propulsion. The fact that Prio is an easily propelled multi-functional wheelchair is an advantage for both users and carers.

If, like us, you think that Prio's functions can contribute towards a better sitting position, you will probably agree with us that we can narrow the gap between all round chairs and multi-functional wheelchairs. This is what we call Ability Based Seating™.

In our next newsletter... we want more people to use both seat tilt and back support angling. What does Prio offer to make it easy and safe to actively use both tilt and back support angling functions?

Ability™ Based Seating