

‘Seat to Standing’

for adults with muscular dystrophy & allied neuromuscular conditions who have difficulty standing up from a seated position

To be used in conjunction with:

Chapter 4	<i>Assessment of Need;</i>
Chapter 10	<i>Disability Needs Assessment Form/Architectural Brief;</i>
Chapter 12	<i>Funding/Understanding the Grant Systems/VAT;</i>
Chapter 15	<i>Adaptation Specifications;</i>
Chapter 17	<i>Multi-use Facilities;</i>
Chapter 18	<i>Addresses: Manufacturers/Suppliers/Sources of Advice.</i>

Many adults with muscular dystrophy and allied neuromuscular conditions are able to walk, but find it increasingly difficult to stand up from a sitting position and need the help of specialist equipment. This chapter includes information in clearly identified stages:

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The method of standing up

This is usually achieved in one of two ways:

- positioning the legs in a wide stance with the knee joint locked and the legs straight; leaning forward on to a stable surface such as a table; bringing the feet closer together and then either climbing up the furniture or pressing on the thighs in order to extend the back and to balance;
- twisting sideways; leaning heavily on one arm; pushing the legs out to the rear so that the knee joint is straight, and levering the body up using furniture as support.

Choice of equipment and the importance of assessment

Most people with neuromuscular conditions find that equipment that throws them forward with their knees flexed is inappropriate, because it is then impossible to straighten the knees to stand up. Fortunately, there are several pieces of equipment that have proved to be useful. In most cases, the equipment was either developed to help people with neuromuscular conditions or has been modified as a result of feedback from users.

It must be stressed that the equipment should be assessed prior to ordering, and it is essential that, if statutory funding is to be sought, the person responsible for arranging the funding is at the assessment.

Shared features of the recommended equipment

These are as follows:

- a seat which rises horizontally on which the user can inch forward without being thrown forward, although a minor push at the last stage in the process of standing up can be helpful to some disabled people;
- a seat which, depending on the user's height rises to a sufficient height (usually between 790 and 870mm) to enable users to lower themselves to their feet with the knees braced back;
- armrests which rise up with the seat to provide stability and something to hold on to at the side of the thighs while the user is standing and slowly extending the back to achieve balance;
- no protrusion at the base of the equipment to get in the way of the feet;
- designed to provide the help required while being aesthetically acceptable and not looking like 'disability' equipment.

Timing of the supply of the equipment and its funding

Most people with a neuromuscular condition choose to struggle to stand up for many years because they feel that this physical activity keeps their muscles active. This decision is a personal one, but it may be more productive to accept the use of equipment at an early stage in order to conserve energy for more worthwhile activities. In addition, one of the difficulties of initially using this equipment is the need to alter the method of standing up. Therefore, it is important to consider these items when standing up is just beginning to get difficult, because it is easier to adapt when less disabled. Early supply will save the frustration of struggling, particularly if there is a delay while funding for the equipment is sorted out. It is likely that several of the items mentioned will be required and, if the need is staggered or identified by forward planning, this may help Social Services to budget the funding. Also, if the equipment will be needed for several years, it is more likely to be funded than items that will be needed for a short time only.

Specialist equipment recommended

This is needed to overcome the difficulties experienced in standing up from the following:

- ⇒ easy chair;
- ⇒ office chair;
- ⇒ toilet;
- ⇒ shower;
- ⇒ bath;
- ⇒ bed;
- ⇒ car;
- ⇒ raising from the floor, following a fall;
- ⇒ wheelchair.

Easy chair

Regent 2745

This chair is particularly suitable because the seat rises horizontally (or at an angle) to a height of between **620** and **740mm**. Two motors enable the backrest and legrest to be controlled independently of each other so that the most suitable position can be adopted, i.e. sitting with the legs either down or raised, or lying down. The design has been upgraded to extend the arms forward to provide more support when standing and to make the chair much more comfortable than the previous model. The chair is upholstered in a choice of velour, but there is also the option of the users supplying their own material.

Ortho-Kinetics (UK) Ltd

Devon Recliner

This chair has a number of interesting features. The actions to raise and lower the legs, backrest and seat height operate independently of each other and the seat has the option of rising horizontally or at an angle. The armrests can be raised out of the way, which is invaluable for sideways transfers if standing up becomes difficult. As the chair has the option of a rotational base, it allows the user to turn the chair round which may be useful when reaching items and allows the optimum positioning of a wheelchair. The chair is attractive and is available in a choice of leather or fabric upholstery; detachable seat and backrest cushions allow the use of loose covers. Two sizes are available.

Bakare Beds Ltd

Made-to-measure, powered self-lift chairs

The option of a model, individually made to order, provides the opportunity to obtain a child's riser chair – and to cater for the individual needs of adults, which will include both tall and large users. However, it must be noted that the minimum seat height is **360mm** (to allow space under the chair for the motor) and prior to a referral for a small child, it must be assessed whether this height allows them to sit squarely with their feet on the floor. The use of a footstool may obstruct standing up from the chair - or require a helper to move and reposition the stool.

The chair has a seat-height adjustability of **405mm**, which means that a tall user, who, for example, needs the seat height at **560mm** to maintain a good postural seated position, can then raise the chair to the maximum seat height of **965mm**, from which to stand. There is the option of the seat rising horizontally, at an angle - or to the required height horizontally, completing the action with a tilt.

Seat widths range from **460-740mm**, the weight limit is **222kg** and it should be possible to incorporate all the features needed by a user with a neuromuscular condition.

Gordon Medical & Rehabilitation Services Ltd

Office chair

eMove powered chair

This electric, self-lift office chair, combined with powered mobility, was designed for people with muscular dystrophy. The seat rises horizontally with the option of a powered seat tilt (if needed, to give the final push) and the armrests and footplate rise with the seat to provide stability to the user. The minimum to maximum seat height is **520-730mm**, but this can be modified. The seat and backrest are fully adjustable and are available in various sizes with an optional headrest. The firm specialises in postural seating, and using their POSE (Personal Office Seating Evaluation) system, can ensure the user sits correctly by tailoring the upholstery to individual requirements.

The chair has a tight turning circle and narrow width, which helps access in limited spaces. There is the option of 5 speeds, with an easy-to-operate joystick control for direction and seat adjustments. 'Swing back' armrests allow sideways transfer from a wheelchair. The weight limit is **120kg**.

If a disabled person in employment needs the chair to help carry out their work, an assessment should be arranged in conjunction with the disablement employment advisor, who can be contacted through the local Job Centre. This support is essential for funding by the Department for Work and Pensions - and it may be prudent to accept the firm's offer of a two-week trial.

Advance Seating Designs

Toilet

Porta Toilet Riser

This electric toilet raiser, which is used superimposed over a standard toilet pan, has been developed from two previous models and its features have been designed for people with neuromuscular conditions. The seat rises horizontally and the range of height adjustability from **450 – 810mm** is excellent. If front transfer is used (which is unlikely for people with a neuromuscular condition) the front bar may restrict this manoeuvre.

The Porta Riser has been modified from **240V** mains power and now uses the Linak Jumbo battery system which is fixed to the bathroom wall, when the riser is bolted to the bathroom floor – and installation is therefore very straightforward.

Unfortunately the alternative wider model for use over a Clos-o-Mat is no longer available.

Huntleigh Healthcare Ltd

Ginnerup Toilet Lift

There are many adults with a neuromuscular condition who initially need help to stand up from a standard toilet and in the future will need to use a shower toilet, see Chapter 8a, *Equipment for Adaptations*. Powered toilet lifts are expensive and ideally a unit should be used that will be suitable for both the short and long term. The Muscular Dystrophy Campaign has worked hard to interest a manufacturer in producing a powered toilet lift which can be used with either a Clos-o-Mat or Geberit shower toilet and finally this has been achieved. The unit has **395mm** of height adjustment with the seat rising to a height of **890mm**; in its lowered position there is **95mm** from the top of the seat to the rim of the pan. The sensitive switches are positioned on the side of the end of the arms, which raise to allow sideways transfer when standing up from the toilet is no longer possible - but height adjustability is needed to allow the transfer to be carried out 'downhill'. The overall width is **650mm** and the front-to-back depth **660mm**.

Moderna Contracts Ltd

Shower

Electric height-adjustable shower seat

Many adults with neuromuscular conditions have difficulty standing safely in a shower, but if they sit down on a shower seat or chair, they are unable to stand up independently. The answer is to use an electrical height-adjustable seat which rises sufficiently for the user to stand up and yet can be lowered near enough to the floor to allow bathers to sit with their feet firmly supported on the floor and enables them to be able to get down to wash their feet. The seat should have a supportive backrest and arms that project beyond the front of the seat to provide support when standing.

SC.EL Shower chair

This model was designed for people with muscular dystrophy. It is powered and can be lowered to within **100mm** of the floor with a range of **800mm** of height adjustment. The maximum height that can be achieved will be influenced by the height at which it is installed. The seat can be supplied with armrests that can be raised independently and which are the recommended length to provide sufficient support when standing.

Astor-Bannerman (Medical) Ltd

Multi System and support arms

The powered seat can be installed at either **150 or 250mm** from the floor with **620mm** of height adjustment. This equipment is discussed in detail in Chapter 17 *Multi-use Facilities*.

Pressalit Care Ltd

Bath

Specialist baths with integral electric seats: *Arjo Solo* and *Arjo Sovereign* baths

A number of firms manufacture baths that have integral seats that swing in and out of the bath and can be raised and lowered electrically into the bath. The seat should pivot from the corner of the bath so that it projects as far as possible from the side of the bath to ease the process of transfer, and should have the maximum range of height adjustment. This may be essential for achieving the height needed to stand up, and eventually the minimum height may be equally important to ensure that a sliding 'downhill' transfer can be achieved from a wheelchair that may not have a height-adjustable seat.

With one exception, all these baths have a seat that supports the bather in an upright position; for many adults this may be the ideal sitting position to facilitate leaning forward to wash; a suggested model is the *Arjo Solo*. However, many bathers prefer to recline, in which case the *Arjo Sovereign* baths are ideal. Further details of these baths are included in Chapter 8a *Equipment for Adaptations*.

Arjo Ltd

Bed

Electric beds

The most important feature of these beds, in relation to helping users to get to their feet, is that they are height adjustable. At a later stage they also have the additional advantage that their minimum height enables the user to move 'downhill' from most wheelchair models to transfer into bed, and to raise the height of the bed above the wheelchair seat height to get out of bed. However, it is important to compare the minimum and maximum heights of the bed with the seat height of the wheelchair. In addition, the bed chosen must have the other features needed by people with a neuromuscular condition. It will be important to consult Chapter 8c *Electric Beds*, which includes a comparative chart showing all the relevant measurements.

The need for an electric double bed will have space implications in the bedroom and may further substantiate the need for adaptations.

Princess 5000: *Action Assist Ltd*

Homecare bed: *Ashworth Trading*

Volker 3080PH: *Bakare Beds Ltd*

Baltic: *Centromed Ltd*

Super Baltimore: *Huntleigh Healthcare Ltd*

Guldmann Flexus 2: *Moderna Contracts Ltd*

Scanbed 750 - Standard, Short and Extra Low: *Scan Mobility Ltd*

Bed in Bed: *Theraposture Ltd*

Car

Seat Raise to Standing

The seat platform (which can be made to measure) is positioned at the side of the car seat and is lowered to a horizontal position when the car door is opened. The driver or passenger swivels round and slides on to the seat with their feet out of the car. The seat platform is then raised electrically, operated from a control button either on the end of a lead or fixed in a convenient position in the car. The unit lifts anyone weighing up to **150kg** and the standard seat rises **450mm** to a height to allow the user to stand. The seat is then folded up and the door closed.

When equipment is assessed the potential user needs to decide:

- the optimum seat size;
- the height needed from which to stand.

Modifications are readily available and the only limitations are those imposed by the size of the car. **2000mm** of height adjustment, for example, is available to access a motor home.

When the car is changed, the unit can be transferred with minimal fitting costs.

KC Mobility Services Ltd

Raising from the floor, following a fall

It is inevitable that anyone with muscular dystrophy who is having difficulty walking will, on occasions, fall down; eventually, climbing up the furniture to get up from the floor will be impossible. A portable unit that lies flat on the floor and rises up to a height from which the person can be helped to stand up, will then be needed.

The alternative is to rise to a suitable height to transfer (preferably ‘downhill’) to a wheelchair that has an elevating seat or to a standard wheelchair used to move to another surface within the house. This may be on to one of the items of powered equipment discussed in this chapter, which rises to a height from which the disabled person can stand.

There is a choice of three items of equipment, as follows:

- ⇒ MK2 Elevator Recovery System;
- ⇒ Mangar Elk;
- ⇒ Mangar Booster.

MK2 Elevator Recovery System (ERS)

The ERS consists of a comfortable, padded, easy-to-clean seat and backrest with head and neck support, on a wheeled frame to be used by a helper. The unit is placed on its side behind the user’s back as they lie on their side in the recovery position. The trunk, lap and thigh, colour-coded straps are passed under and over the disabled person and buckled. The person and the frame are then rolled until they are lying on their back on the seat and backrest. As the switch is operated, the user is raised upwards and forwards to a fully-supported, semi-standing position with the seat height at **515mm**. The equipment is very stable and is suitable for use both indoors and outdoors. It is powered by a rechargeable battery, with a battery-charge indicator - and has a lifting capacity of **160kg**. The ERS is compact and easy to use in confined spaces – and when not in use, folds for storage.

Cane & Able Ltd

Mangar Elk

This unit consists of four compartments approximately **500mm** square, inflated by a small battery-operated compressor, which will lift up to **320kg** to a height of **565mm**. The Elk and compressor are convenient to carry, and to store when not in use. The advantage of the Elk is that when deflated it is flat on the ground, which makes it easier for anyone unable to push on their arms, to raise their bottom into the correct position. Because the unit does not have a backrest, armrests or safety straps and may lack stability, it is not designed for independent use by anyone with a neuromuscular condition and will require the assistance of at least one helper.

Mangar International Ltd

Mangar Booster

This unit is similar to the Elk, but may be used independently. To provide greater stability on surfaces such as carpeted floors, the suction feet are placed firmly on a 'stability' board. The Booster is available in standard or 'extra' lift models, which rise to a height of **500** or **700mm**; the weight limit is **130kg** (or **160kg** as a special order). The unit is supplied with side flaps to help ease up the user's bottom from the floor, with the option of non-slip flaps. The backrest is supplied as standard, but the optional armrests may be essential to increase stability when the unit is inflating and to help when standing.

Unlike the Elk, the minimum height of the Booster is **100mm**. This increased floor-to-seat height may make it more difficult for the users to raise themselves up on to the cushion – or to be lifted on by a helper.

Mangar International Ltd

Wheelchair

Wheelchairs with height-adjustable seats

Many adults will be able to stand and take weight on their feet for several years after walking becomes impossible. The equipment discussed in this chapter will continue to help them to get to their feet, and a wheelchair will then be needed to travel between the various items of equipment. The wheelchair must have an elevating seat to enable standing and transfer on to the equipment (and vice versa). When standing becomes impossible and a sideways transfer to and from a wheelchair is necessary, the maximum and minimum height adjustment will be crucial to allow these transfers to be carried out moving 'downhill'. Some of these wheelchairs are included in Chapter 8d *Wheelchairs*.

The link with adaptations

When this equipment is first needed, many adults make alterations to their homes that they feel are adequate at the time, but prove to be inappropriate as soon as a wheelchair is needed. It is often particularly difficult for anyone with a progressive condition to plan ahead for the use of a wheelchair, but experience has shown that in the interim period this will increase independence and in the longer term will be cost effective.