



Safe Lifting and Moving of Medically-Complex Children

Version 1.0

Contents

Contents	2
Introduction	4
General Advice for Manual Transfers	5
Questions to consider	5
General tips	5
General Advice for Equipment-Assisted Transfers	6
Lifting a child out of bed	7
One-person manual lift from bed to wheelchair/buggy	7
Two-person manual lift from bed to wheelchair/buggy	7
Alternative approaches	7
Lifting a child into bed	8
One-person manual lift from wheelchair/buggy to bed	8
Two-person manual lift from wheelchair/buggy to bed	8
Alternative lifts to help a child into bed	8
Lifting a child off the floor	9
One-person manual lift from floor to standing	9
One-person manual lift from floor to buggy or seat	9
Two-person lift from floor to wheelchair/buggy	9
Alternative lifts to help your child off the floor	10
Lifting a child out of a buggy/wheelchair	11
Two-person manual lift from wheelchair/buggy to floor	11
Personal Care	12
Helping a child onto the toilet using a portable raised step	12
Alternative approaches for helping a child onto the toilet	12
Lifting your child into the shower	12
Transporting your child	13
Using a car seat	13
Alternative approaches	13
Care Assessments	14
Equipment	15
Hoists	15
Slings	15
Manual-lifting sling	16
Transfer boards	16

Slide and Lock Sheets.....	16
Dressing aids.....	17
Swivel seats.....	17
Wheelchair-Accessible Vehicles (WAVs).....	17
Inflatable Raiser Cushion.....	17
Raizer Chairs.....	18
Standing Aids and Walkers.....	18
Stair Climbers, Stair Lifts and Through-Floor Lifts.....	18
Back Pain.....	19
About Back Pain.....	19
Stretches and Exercises.....	19
Avoiding discomfort and pain.....	19
Further Information.....	21
Training.....	21
Book recommendation.....	21
References.....	22
Version Control.....	24

Introduction

Children with trisomies 13 and 18 often need assistance with moving. However, it can be hard to find advice about how to help your child move safely, without causing yourself or your child any pain. This is particularly important as your child gets older and heavier.

To address this, SOFT UK has put together this guide which aims to help you think about ways in which you lift and move your child. It starts off with a section of general advice and things to consider, then explores particular types of movements and transfers, suggesting possible approaches and alternatives which are recommended by the National Back Exchange. Next, there is a section on how to get an assessment of your and your child's needs and different types of assistive equipment which may be recommended following your assessment. Finally, there are suggestions of stretches and exercises to help keep your back healthy.

We hope that you will find this guide useful, however **the contents of this guide are not intended to replace any advice you have received from a medical professional. It is important to get an assessment of your family's needs in order to identify the best and safest approaches for you and your child and any equipment which is suited to your needs.**

If you have any feedback or suggested improvements to this guide, please let me know through the feedback link here: <https://forms.gle/kXsrkBHzJ3ZajnhY9>

General Advice for Manual Transfers

Questions to consider

The NHS recommends that you consider the following questions when moving other people:

- do they need help or supervision to move?
- have you told them you're moving them?
- how heavy are they?
- are you healthy and strong enough to move them?
- is there anyone who could help you?
- how long will it take?
- is there enough space around you?
- are there any obstacles in the way?
- are you wearing suitable clothing and shoes – for example, if you're on a slippery or damp surface?

Source: NHS (2021)

General tips

- When your child is lying down, avoid pulling them up by the arms if they have limited head control, as this may cause their head to fall back.
- Carry them so that their back and head is supported against your body.
- Avoid bending from the waist to reach children on the ground. Instead, keep your feet shoulder-width apart and squat whilst keeping your back straight.
- When sitting on the floor, use a wall or furniture to support your back, if possible.
- If you are carrying your child (or any equipment or objects) put your feet in the direction of travel. If you are moving things towards or away from you, put your feet in a walking stance. If you are moving something sideways, place your feet apart.
- Keep any weights as close to your body as possible.
- Lift by straightening your knees.
- Do not put your feet too close together.
- Do not tense or twist your neck when lifting.
- Do not carry your child on your hip – it is better to hold them in front of you to spread their weight.
- Do not carry other things whilst also carrying your child

Sources: Teach 4OI (no date), Children & Family Health Devon (2019), Aston University (2022)

General Advice for Equipment-Assisted Transfers

- Equipment should be checked before use to ensure it is safe and clean.
- Ensure that equipment such as hoists and slings are serviced and maintained appropriately. Hoists should be checked every year and serviced every six months.
- Check the movement of the hoist before using it.
- Check that the handset does not have any obvious damage.
- Check that the hoist is not damaged.
- Ensure that you are using the correct loops for the shoulder and leg straps.
- Make sure that your child's weight is within the safe working load of the hoist.
- If you are using a mobile hoist, make sure the brakes are off when in use.
- Make sure you are happy with the emergency safety features and test these before using.
- Make sure you have received training in how to use the hoist and that you understand how to use it safely.

Sources: Alexander et al (2021), Medaco (2019)

Lifting a child out of bed

One-person manual lift from bed to wheelchair/buggy

1. Raise or lower your child's bed to a safe height, if possible.
2. Pull the wheelchair/buggy close to the bed (at a 45-degree angle) and lock in place. Move the footplates aside if necessary.
3. Roll your child onto their side so they are facing the wheelchair.
4. Place one hand under your child's legs, and your other arm under their shoulders.
5. With your feet shoulder-width apart and your knees bent, pivot them so that their legs are over the edge of the bed and they are sitting up. Your back should remain in a straight position.
6. Keeping your feet shoulder-width apart and your knees bent, put your child's outside leg (i.e., the one furthest from the wheelchair) between your knees.
7. Keep your back straight and place your arms around your child's back. Clasp your hands together.
8. Lean back and use your knees and your weight to lift your child. Use a rocking motion.
9. Pivot one foot, then the second (keeping your back aligned with your hips) so that your child is in front of the wheelchair.
10. Bend your knees to gently lower them into the chair.

For pictures of this lift, please visit the OrthoInfo website (<https://orthoinfo.aaos.org/en/staying-healthy/lifting-techniques-for-home-caregivers>)

Sources: Bergman and De Jesus (2022), Mannheim et al (2021), OrthoInfo (2020), Winfar (No date)

Two-person manual lift from bed to wheelchair/buggy

1. Slide your child towards the edge of the bed.
2. Position the wheelchair so that it is adjacent and parallel to the bed. Lock the wheels and move the arm and leg supports out of the way.
3. One person should stand behind the wheelchair, so that they can reach around from behind your child's back, crossing your child's arms if possible, and holding their lower arms.
4. The other person should place one hand under your child's thighs and one under your child's lower legs.
5. Both people should bend their knees and keep their backs straight.
6. Agree on a count, and then simultaneously lift the child vertically off the bed.
7. Move them over the wheelchair, pivoting by moving your feet rather than twisting.
8. Gently lower by bending your knees.

There is a video of this at the link in the references.

Sources: UC DPT Program Videos (2016)

Alternative approaches

- Use a [hoist](#) and [sling](#)

Lifting a child into bed

One-person manual lift from wheelchair/buggy to bed

1. If possible, change the bed height so that it is the same as the wheelchair.
2. Put the wheelchair at a 30-degree angle to the bed and lock the wheels.
3. Help move your child to the front of their chair and place their feet on the floor
4. Stand in front of the wheelchair, bend your knees and put your arms around your child's back, underneath their shoulders.
5. Clasp your hands and lift your child into a standing position by straightening your knees.
6. Pivot them by moving one foot at a time so that they are backing onto the bed.
7. Gently lower them onto the bed.
8. Swing their legs up so that they are lying on the bed.

Source: Transfer Master (2020)

Two-person manual lift from wheelchair/buggy to bed

1. Lock the wheels of the wheelchair/buggy and remove the arms of the wheelchair/buggy.
2. One person should stand behind the wheelchair, cross your child's arms if possible, and reach around from behind them to hold their lower arms.
3. The other person should move the wheelchair foot supports out the way and stand at the end of the wheelchair, facing the bed. They should place one hand under the child's thighs and one under the child's lower legs. If your child's body 'sags' when being lifted, it may be more useful for this person to place their hands nearer to your child's hips.
4. Both people should bend their knees and keep their backs straight.
5. Agree on a count, and then simultaneously lift the child sideways out of the wheelchair.
6. Move them over the bed and then gently lower by bending your knees.

There is a video of this at the link in the references.

Source: UC DPT Program Videos (2016)

Alternative lifts to help a child into bed

- Use a [hoist](#) and [sling](#) (as directed by your child's physiotherapist or occupational therapist)
- Two-person manual lift using a [manual-lifting sling](#) (as a short-term measure, following an assessment)

Lifting a child off the floor

One-person manual lift from floor to standing

For children up to 20kg:

1. Sit on your heels behind your child and slide them onto your lap (you may wish to consider using a [sliding sheet](#) to help).
2. Support your child's hips and move into a high kneeling position so that your child is standing.

Source: Alexander et al (2021)

One-person manual lift from floor to buggy or seat

For children up to 20kg:

1. Kneel or crouch beside your child (or sit in a chair).
2. 'Scoop' them into your arms and lift.

Source: Alexander et al (2021)

Two-person lift from floor to wheelchair/buggy

1. Position the wheelchair near the child on the floor. Lock the wheels and move the arm and leg supports out of the way.
2. One person should stand behind the child, cross their arms if possible, and reach around from behind to hold their lower arms.
3. The other person should place their hands under the child's thighs, grasping hands under their legs.
4. Both people should bend their knees and keep their backs straight.
5. Agree on a count, and then simultaneously lift the child vertically off the floor.
6. Move them over the wheelchair, pivoting by moving your feet rather than twisting.
7. Gently lower by bending your knees.

Source: Wisconsin DPI (2015a)

Alternative lifts to help your child off the floor

- Use a [sit-to-stand harness](#).
- Use a mobile or tracking [hoist](#) and standard [sling](#)
- Use a [manual-lifting swing](#) with two people lifting.
- Use of an [inflatable raiser cushion](#) if the child has trunk stability and this has been approved by your child's occupational therapist.
- Use of [Raizer chairs](#) if approved by your child's occupational therapist.

Source: Alexander et al (2021)

Lifting a child out of a buggy/wheelchair

Two-person manual lift from wheelchair/buggy to floor

1. Lock the wheels and remove the arms of the wheelchair/buggy.
2. One person should stand behind the wheelchair, cross your child's arms if possible, and reach around from behind them under their shoulders to hold their lower arms across their chest.
3. The other person should move the wheelchair foot supports out the way, stand in front of the child's feet, facing them, and place their hands under the child's thighs, grasping hands under their legs.
4. Both people should bend their knees and keep their backs straight.
5. Agree on a count, and then simultaneously lift the child vertically and sideways out of the wheelchair.
6. Move them to a safe space on the floor and then gently lower by bending your knees.

Source: Wisconsin DPI (2015b)

Personal Care

Helping a child onto the toilet using a portable raised step

For children between 11kg and 25kg with good upper body strength. Your child will need railings to hold on to.

1. Position your child's wheelchair at right angles to the toilet.
2. Place their feet on the raised step.
3. Encourage them to stand up whilst holding on to railings, and to pivot so that they are in front of the toilet.

Source: Alexander et al (2021)

Alternative approaches for helping a child onto the toilet

- Use a powered [stand-aid](#)
- Using a [hoist](#) and access [sling](#) (following appropriate assessment and as directed by your child's physiotherapist or occupational therapist)

Source: Alexander et al (2021)

Lifting your child into the shower

- Lift your child (either manually or using a [hoist](#)) onto a pull-down seat (following an assessment and advice by an occupational therapist)
- Lift your child (either manually or using a [hoist](#)) onto a specialised shower chair which they can be strapped in to.

Source: Alexander et al (2021)

Transporting your child

Using a car seat

1. Apply your child's buggy's (or wheelchair's) brakes.
2. Lift your child from their buggy/wheelchair.
3. Step into the car with one foot to help you position your child correctly in the car seat.

Source: Alexander et al (2021)

Alternative approaches

- Use a [specialised car seat](#) which swivels.
- Consider using a [wheelchair-accessible vehicle](#) with a ramp to help move your child into the vehicle.

Source: Alexander et al (2021)

Care Assessments

It is important that your child's and your own needs are being met. If you think you or your child will benefit from an aid or piece of equipment, such as a hoist, it is important to discuss this with their medical team.

You can also request a needs assessment from your local council (in England, Scotland or Wales) or health and social care trust (in Northern Ireland):

- If you live in England or Wales, you can find your local council website here: <https://www.gov.uk/find-local-council>
- If you live in Scotland, you can find your local council website here: <https://www.mygov.scot/find-your-local-council>
- If you live in Northern Ireland, you can find contact details for your local health and social care trust here: www.nidirect.gov.uk/contacts/health-and-social-care-trusts

There are template letters for requesting these assessments in England, Scotland and Wales on the Contact website: <https://contact.org.uk/help-for-families/information-advice-services/social-care/how-to-access-services/needs-assessments/>

Equipment

Hoists

There are a number of different types of hoist which may be suggested to you after your assessment. The table below summarises the difference between different passive hoist types.

Hoist Type	Description
Static hoist	These hoists are fixed (usually to the floor) and have a sling or seat for the person being transferred. They can raise, lower and pivot users. They may be manual or electronic.
Mobile hoist	These hoists have a frame mounted on castors, so they can be moved for short distances whilst carrying a person. Users sit in a sling. These hoists can be manual or electric.
Ceiling track hoist	This is permanently installed in a home. It is more expensive to install but requires less effort from the carer. Users sit in a sling and can be moved between locations. The lifting process is powered, but movement may be powered or manual. You will need a structural survey before having one of these installed.
Gantry hoist	This hoist incorporates a heavy frame, allowing the user to be moved along the frame.
Portable hoist	This hoist can be dismantled so that it can be transported in a vehicle.

Sources: Living Made Easy (No date), Medaco (2021)

If you decide to buy a hoist, there is more information about where you can buy hoists here: <https://www.soft.org.uk/specialist-equipment-providers> We recommend that you seek professional advice to ensure that the hoist is suitable for your child.

Slings

Different sling types are summarised in the table below:

Sling Type	Description
General purpose/ Universal sling	These support the user's legs, torso and head. Usually they have split-leg supports so that the legs can be held separately or together. There also universal slings without the split-leg option, which offer more support to users.
Comfort/Full back /Full body sling	These offer full-body support.
Toilet sling/ Access sling	These support the user's upper back and head but splits into two straps at the waist to allow the user to use the toilet whilst supported by the sling. This is more suitable for someone who has stronger core strength and understanding of what they need to do.

Strap sling	These offer less support to the user. They are usually used in pairs around the trunk and behind the thighs.
Bathing sling	These are made from spacer or net material. These allow water to drain from the slings.

Sources: Living Made Easy (No date), Medaco (2021)

Slings are available from the following companies:

- <https://ambrestone.co.uk/product-category/patient-moving-positioning/moving-handling-lifting/slings/>
- <https://joerns.co.uk/products/oxford-slings/>
- <https://multicaremedical.co.uk/shop/slings-transfer-aids/>

Please check that the sling type is compatible with the hoist before purchasing. We recommend seeking professional advice to ensure your equipment is safe for your child.

Manual-lifting sling

These are slings which can be used to help two-person lifts. They are designed to be carried rather than attached to hoists. One example of this is here:

<https://www.independentliving.co.uk/product/promove-sling/>

Transfer boards

Transfer boards can be helpful for children who have some mobility but need assistance with moving between level surfaces.

They can be bought here:

- <https://www.essentialaids.com/bedroom-aids/transfer-boards.html>
- <https://www.mobilitysmart.co.uk/patient-handling/transfer-boards.html>

Slide and Lock Sheets

These can be used to help re-position your child or make it easier to slide them into a sling. Some examples are listed below:

- <https://www.essentialaids.com/children-with-disabilities/moving-handling/ezee-mover-slide-sheets.html>
- <https://www.essentialaids.com/children-with-disabilities/moving-handling/glide-lock-sheet-junior.html>

Dressing aids

There are a number of items which might help you when you are dressing your child:

- Dressing sleeves
 - <https://www.incontinencesupermarket.co.uk/dressing-sleeve>
- Sock applicators
 - <https://compression.solutions/ezyas/>
- Adapted shoes
 - https://sensorysmart.co.uk/collections/billy-shoes-adaptive-footwear?grid_list=grid-view

Swivel seats

These are child car seats which are designed to turn so that they are facing the side of the car, to make it easier for children to be helped into them. There is a comparison chart of different car seats here, including those which have the capacity to swivel:

[https://www.ridc.org.uk/sites/default/files/uploads/Pictures/Out%20and%20about/Family%20cars/Specialist child car seats2018.pdf](https://www.ridc.org.uk/sites/default/files/uploads/Pictures/Out%20and%20about/Family%20cars/Specialist%20child%20car%20seats2018.pdf)

Wheelchair-Accessible Vehicles (WAVs)

If you would like to know more about buying a WAV, there is a useful website here:

<https://www.ridc.org.uk/features-reviews/out-and-about/wheelchair-accessible-vehicles-wavs-0>

Inflatable Raiser Cushion

These are cushions which your child can lie on. You can control these using a remote to allow them to inflate and raise your child off the floor. It is important to check with a medical professional that this is suitable for your child before using. One example is here: <https://mangarhealth.com/uk/by-winnicare/store/product/safe-patient-lifting/camel-lifting-cushion/>

Raizer Chairs

These are chairs which can be assembled around your child if they are lying on the floor and can be used to help raise them into a sitting position. It is important to check with a medical professional that this is suitable for your child before using. One example is here:

<https://www.vivid.care/products/moving-handling/fall-assists/raizer-ii-emergency-lifting-chair/>

Standing Aids and Walkers

Standing Aids and Walkers can be used to help your child to maintain a vertical position for standing or walking. It is important that your child's needs are assessed by a healthcare professional to determine whether this equipment is appropriate, and which model would be most suitable.

To find out more about suppliers of standing aids and walkers, please download the Guide to Specialist Equipment Providers document on our website: <https://www.soft.org.uk/specialist-equipment-providers>

Stair Climbers, Stair Lifts and Through-Floor Lifts

When thinking about helping children move upstairs there are a number of options:

Stair lifts may be useful if your child has good trunk control and you have the space, **stair climbers** allow you to lift your child upstairs whilst they are in their wheelchair, and **through-floor lifts** are a safe future-proof approach, if you have the space in your house. It is important to get professional advice about the most appropriate equipment for you and your child. If you are considering a through-floor lift, you should also seek advice about Disabled Facilities Grants and how to access these.

Back Pain

About Back Pain

For more information about back pain including causes, symptoms and treatments, please visit: <https://www.versusarthritis.org/about-arthritis/conditions/back-pain/>

Stretches and Exercises

Please visit the following links for examples of stretches and exercises to help people prevent and manage back pain

Improving muscle strength and flexibility:

The videos on this website have been made by the NHS to help people develop strength and flexibility in the muscles which support their backs: <https://backcare.org.uk/i-have-back-or-neck-pain/prevention/>

Postural care exercises

Straighten Up UK has a series of exercises which are supported by the British Chiropractic Association. For more information and to download a leaflet with instructions, please visit: <https://chiropractic-uk.co.uk/straighten-up-uk/>

Exercises for back pain:

BackCare have produced a short guide to exercises aimed at addressing back pain: <https://backcare.org.uk/wp-content/uploads/2020/02/901-Exercises-for-back-pain.pdf>

Avoiding discomfort and pain

For parents who often kneel next to their child when playing or lifting them, there are a few products which may be helpful in reducing discomfort, particularly in the knees.

- Meditation stool – this is placed over the calves to reduce acute flexion in the knees. For example: <https://mudracrafts.com/products/mudra-crafts-portable-wood-padded-cushion-angled-seiza-kneeling-meditation-bench-seat-folding-stool?variant=38092987859119>
- Ergokneeler – parents can kneel, half-kneel or squat using the ergokneeler. For example: <https://www.spectrumhealthcare.co.uk/products/ergokneeler/>
- Pillow – pillows can be used as alternatives for meditation stools and ergokneelers.
- Festival seat – this can offer back support to a parent who is sitting on the floor (if they cannot sit against a wall). For example: <https://camplight.co.uk/product/highlander-folding-seat/>

Source: Alexander et al (2021)

Further Information

Training

The following training course(s) may be helpful:

Course Title	Moving and Handling Children and Young People Course
Location	Worsley, Manchester
Dates	4 th April 2024 or 17 th September 2024
Price	£145+VAT
Details	https://www.disabledliving.co.uk/training/our-courses/moving-handling/m-h-children/

Book recommendation

Manual Handling of Children written by Pat Alexander, Carole Johnson and Penny Townsend on behalf of the National Back Exchange – This book has useful information about different techniques for moving and lifting children, including factors to consider when choosing techniques and alternative choices. It can be purchased through the following link:

<https://www.nationalbackexchange.org/publications>

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