Mastering Daily Life
24-hour concept
“24-Hour Concept”
Around the clock
Support for everyday life

Children develop their own personality very early in life. They observe, feel, taste and smell the world from the time they get up until they go to bed – everyday. Children with special needs are developing in this way as well however they require mobility and positioning solutions tailored to their particular needs to ensure they get the same opportunities to explore and grow.

Independent mobility is crucial not only for your child’s physical development, but also for cognitive stimulation and growth as well as building healthy social skills.

Prepared for every situation during the day:

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Wake up! It’s a new day. Breakfast is on the table. We start the morning calmly and get energy for the whole day. Eating and drinking are elementary human activities – and are also communicative.

Ottobock and Leckey seating systems and therapy seats support the body and straighten the pelvis to prevent faulty posture which hinders your child while eating and drinking. Upright posture on the other hand actively helps your child and is nearly indispensable for children with swallowing disorders (see info box).

Breakfast with the family is a good start for a new day of exploration.

1 Squiggles Seat is for children in the first five years of life who would benefit from pelvic stability and lateral support of their spine and head to encourage a more upright posture. All of this positioning assists children to be successful with purposful movement.

2 The Everyday Activity Seat offers indoor positioning to support the everyday needs of children with special needs. From eating, to learning, or just watching TV, the Everyday Activity Seat ensures your child is positioned for health and success.

3 The Mygo Seat comfortably supports children with high tone, spasticity and asymmetries. The Mygo’s unique adjustable seat ensures your child is positioned optimally.

4 Finally indoor positioning to support big kids ages 12 adult with complex positioning needs. The Mygo Max on indoor high low base positions bigger kids for eating and indoor activities and is easier to maneuver indoors than their primary wheelchair.
Dysphagia

In dysphagia (difficulty swallowing), coordination between muscles, joints and salivary glands, which is normally controlled by reflex, is impaired. It is often associated with poor head and body posture. Positioning seats promote better alignment and posture for a safer and more successful swallow reflex.

Children with dysphagia require 24-hour supervision to prevent serious complications such as refusal to eat, malnutrition and dehydration, fever, bronchitis and aspiration (inhaling food with the respective consequences).
The world is a large, fascinating place. Especially when observed while lying down. After just a few weeks, your child begins to explore the world – and move. Every different position opens up new, interesting perspectives to the child.

If a child is not able to mobilize themselves and is late to have the skills for independent sitting, they would benefit from supportive products that will assist them in reaching their developmental milestones. The Early Activity System, Early Sitting System and Pilot are perfect examples of sitting, crawling, and floor positioning products that are fun and therapeutic.

Moving through an environment and hands-free play are integral to a child’s physical and cognitive development.

With proper positioning, your child will continue to explore, grasp, learn, and grow.

1 The Early Activity System (EAS) is a fun interactive system for parents and baby/toddler. The easy to follow positioning booklet shows parents how to use the positioning noodles and shapes to support baby/toddler for floor time activities.

2 The Early Sitting System (ESS) booster seat can be used on the floor or secured to a chair and provides just enough support to promote more active sitting skills and balance.

3 The compact and portable Corner Sitter is the perfect floor seat for a child’s activities while promoting long legged sitting. Not overly complex, the child can easily move to reach and interact.

**Floor Positioning & Grasping**

**First activities – the best starting position for life**

<table>
<thead>
<tr>
<th></th>
<th>EAS</th>
<th>ESS</th>
<th>Corner Sitter</th>
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<tbody>
<tr>
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</tbody>
</table>

**Size**
- EAS: Size 1 (1–36 months)
- ESS: Size 1 (18–48 months)
- Corner Sitter: Size 1 (1–6 years), Size 2 (5–9 years), Size 3 (8–14 years)
A child that takes longer to be able to turn over and sit up exhibits a slower overall development. Every step of development builds on the previous step. Mobilization is also important for cognitive development. You should therefore actively support your child as early as possible.

- Get information on the individual steps of child development.
- Work out realistic goals with the therapist.
- Offer your child safety and support, but do not do all the work for him.
- Use many playful stimuli.
Why lie?


2. Facilitates contact and awareness

3. Activates body perception

4. Improves swallowing process/food intake

5. Improves skin integrity by relieving pressure encountered during seating

6. Facilitates maturation of the hip joint in early development

7. Increases bone density and reduces risk of fractures
Lifting correctly

Children do not straighten up directly from lying on their back. That would be far too strenuous and put a lot of strain on the spine. All children first turn on their side or even get on all fours. Therefore, it is important to ensure that you always turn your child on his/her side before lifting him/her. You do not even have to support the child’s head, because you are working with gravity when you lift correctly.

Your baby usually spends 40 weeks curled up in the womb. After arriving into this world, a flexed posture is maintained in the early months. Moving while bent over does not harm the child. Only hyperextension is dangerous – and is avoided by the rotational movement and correct carrying.

1. Stretch your hand out flat and grasp your child’s shoulders. Ensure that the child’s arms are moved forward as well, and that your thumbs do not dig into your child’s underarms.

2. Turn your child to the side until he/she is almost face down. The child is looking at the supporting surface and the body weight is on the child’s forearm.

3. Only now do you lift the child. In doing so, the head falls forward with gravity and the entire back is curved. You have done it correctly.

4. Keep on turning your child.

5. The child will then automatically slide into your arm.

6. Finally, ensure that you hold your child close to the hip joint. One leg can dangle, following the pull of gravity. This position causes the head of the femur to engage in the socket and helps the hip joint to mature naturally.

Excellent!
Whether by car, bus, train or on foot – on the way to school or pre-school, your child needs good support and should also be able to take in their surroundings.

Ottobock positioning strollers and transport strollers give your child the necessary stability, provide relief, and support therapy. They “grow” with your child and can be adapted should the needs of your child change. For this reason, there are many styles offering many different options. They all have the same goal—easy and safe transportation to support your lifestyle.

1 For children who need more support, the Kimba Neo stroller is almost always the right solution. Tension adjustable frame suspension buffers the bumps in the road to avoid the activation of spasms. Tilt promotes better head and spine alignment while recline allows your child to rest.

2 Lisa makes travel easy and comfortable for children with mild positioning needs. Recline allows the child to relax and the lightweight umbrella folding frame makes trunk stowing a snap.

3 The lightest weight of the line at 18 lbs, the Eco Buggy is a great solution for children 3-8 years old. Easy to maneuver even on gravel and grass.

4 Kimba Kruze is a crash tested lightweight transport stroller that folds easily to support active family lifestyles. The variety of positioning accessories ensures most children will be comfortable and well positioned for quick trips around town.
Tips for deciding between a positioning stroller or transport stroller

Here are a few questions to ask yourself to make the right selection:

- How old is your child and how long will they be sitting in the device?
- Can your child sit upright with good head positioning or do they need tilt to keep their head up?
- Does your child use a ventilator and oxygen that will be transported with them?
- What kind of vehicle do you drive and how will you transport the device in your vehicle?
- How easy is it to use and transport by car or on public transportation?

See also the checklist on the next page.
Positioning stroller or transport stroller?

There is no single answer to this question as the selection always depends on the needs of your child, the environment you will use the product in and your lifestyle.

Transportation Strollers are intended mainly for transporting children that fatigue walking long distances, walk with a gait trainer and walker, or who’s heavy wheelchair makes quick trips around town difficult. Our transportation strollers are also suitable for older children. You can tell from the materials used, the seat sizing, and the higher maximum weight capacity. Our transport strollers are all crash tested and designed with a slight incline in the seat to make sitting less fatiguing.

If your child has difficulty holding their head upright and needs more lateral support of their trunk, they would most likely benefit from our positioning stroller, the Kimba Neo. The adjustable tilt of the seat on the frame allows aids in positioning and the many positioning accessories ensures a customized fit for their needs. Medically fragile children also will benefit from the Kimba’s ability to carry medical equipment like ventilators and oxygen.

<table>
<thead>
<tr>
<th>Features of the buggy</th>
<th>Kimba Neo Stroller</th>
<th>Lisa Stroller</th>
<th>Eco Buggy</th>
<th>Kimba Kruze</th>
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</thead>
<tbody>
<tr>
<td>Posture support</td>
<td>✓</td>
<td>✓</td>
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<tr>
<td>Ability to switch between active and relaxed positions</td>
<td>✓</td>
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<tr>
<td>Suspension (to avoid spasms)</td>
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<td>Suspension individually adaptable to the weight of the child</td>
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<td>Individually adjustable seat width, depth and angle</td>
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<td>Individually adaptable head (optional) and hip supports</td>
<td>✓</td>
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<tr>
<td>Reclining position</td>
<td>✓</td>
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<tr>
<td>The seat can turn rear facing for caregiver interaction</td>
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<tr>
<td>Can carry medical equipment like ventilator, oxygen etc</td>
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<td>Sturdy wheels</td>
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<td>Swivel lock for uneven surfaces</td>
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<tr>
<td>Is the rehab stroller aesthetically appealing to me?</td>
<td>✓</td>
<td>✓</td>
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<td>✓</td>
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</table>
Features of the buggy Kimba Neo

- Posture support
- Ability to switch between active and relaxed positions
- Suspension (to avoid spasms)
- Suspension individually adaptable to the weight of the child
- Individually adjustable seat width, depth and angle
- Individually adaptable head (optional) and hip supports
- Reclining position
- The seat can turn rear facing for caregiver interaction
- Can carry medical equipment like ventilator, oxygen etc
- Sturdy wheels
- Swivel lock for uneven surfaces

Is the rehab stroller aesthetically appealing to me?

Why sit?

1. Improves respiration and voice control
2. Enables kids to interact eye-to-eye with peers
3. More independence
4. Improved food intake and mouth and tongue motor function
5. Change of perspective
6. Change of perspective
7. More opportunities for play, because hands can be used for grasping and feeling rather than support
8. Increases bone density and reduces risk of fractures
9. Enhances circulation and blood pressure
10. Creates the right conditions for locomotion
11. Changing awareness
“Hi Nick! Hi Marycruz!” Your child’s friends are already at their desks. At school, children take in many kinds of stimuli, learn to concentrate, acquire knowledge, and important social life skills.

Your child needs to be able to sit stably and comfortably to learn. Seating systems should fulfill three criteria to allow your child to cope with the demands at school: Support postural control for better hand dexterity and head positioning for gaze and speech, be comfortable for better sitting tolerance and protect their skin.

And naturally for communicating with Nick and Marycruz.

1 The individually adjustable PAL chair offers just enough mild positioning support to aid the child in participating with classroom activities. The wooden chairs offer rocker bases for children that need movement and footplates to stabilize them.

2 The Everyday Activity Seat offers indoor positioning to support the everyday needs of children with special needs. From eating, to learning, or just watching TV, the Everyday Activity Seat ensures your child is positioned for health and success.

3 Squiggles Seat is for children in the first five years of life who would benefit from pelvic stability and lateral support of their spine and head to encourage a more upright posture. All of this positioning assists children to be successful with purposful movement.

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5 Finally indoor positioning to support big kids ages 12 to adult with complex positioning needs. The Mygo Max on indoor high low base positions bigger kids for eating and indoor activities and is easier to maneuver indoors than their primary wheelchair.
Why is sitting so important?

Sitting is necessary for small children to achieve (independent) mobility. Sitting is important because it:

• Promotes a sense of balance
• Strengthens muscles
• Is necessary for mental development
• For taking in stimuli and
• Participating in social life

Children who cannot sit on their own require early assistance so that they do not use their energy to maintain an unstable position, but can face their surroundings.
Leisure & Play Time

And now – explore the world

Free at last. To explore the world – or at least the home – with others. During play, children collect impressions and experiences, develop body and mind, gain self-confidence and practice social behaviour.

To do this, they need mobility and the ability to interact with others. A child should be able to stand on their own legs by the time they are 18 months old. Severely delayed or faulty development can seriously impair the ability to walk later. Body weight must press the thigh bones into the hip sockets so that the hip joint can develop fully.

Various Ottobock walking aids help your child acquire and practice important stance and gait functions. The frame of the walking aid is either in front of or behind the child; if it is in front, the walker provides stability for an insecure gait. A walker whose frame is behind allows the child to use the support muscles of the upper body.

So that they can look the world in the eyes.

1 The Nurmi Neo is a foldable posterior walker for children and adolescents in three sizes that is positioned behind the body. Various handles and hip pads allow the optimal, individual adjustment to the gait.

2 The Walk Star is a foldable posterior walker with a narrow, lightweight design to be pulled behind the body, in five sizes for children, adolescents and adults that is suitable for easy transport.

3 The Yogi is a foldable anterior walker for children and adolescents in two sizes that is pushed in front of the body. It is intended for children who can bear their own weight but have difficulty walking.
Why is walking so important?

Physical
- Trains the muscles
- Trains coordination, body perception and sense of balance
- Promotes extending the hips and straightening the pelvis

Neurological
- Trains spatial awareness
- Supports sensory perception

Social
- Allows contact at eye level
- Helps explore the surroundings

Psychological
- Promotes independence
- Enhances self-confidence
Independent Mobility
In the midday sun – gaining pace

Feel the wind, be active and feel at one with the world. Children who cannot walk with walking aids also want to be independent and mobile, need to be active outdoors – together with other children.

Ottobock has developed pediatric specific power and manual chairs (Canada only for Manual). Ottobock’s mantra for pediatric Mobility is “as much activity as possible and as much support as needed.”

Because every child has a right to be mobile and to have their own place in the world.

Easy Transport

1 The Skippi Power Chair is designed to be a child’s and family’s first power chair. The small footprint and rear wheel drive provides better spatial awareness for the child maneuvering their surroundings. The ability to fold down the frame for easy car storage means families have more time to get a wheelchair accessible van and adapt their home and lifestyle for a child that will be driving power.
Which wheelchair when?

It is impossible to make a blanket statement about which wheelchair is the right one for your child.

As a general rule, the greater the disability, the more important positioning aids, safety features, stability, low weight and individual adjustment options are.

- Manually propelled **active wheelchairs** are for children who can operate and manoeuvre the wheelchair on their own.
- **Power wheelchairs** are helpful when they do not have enough muscle strength or a lack of fine motor skills. They can be operated with a joystick or other special controls.
- What are known as **environmental control units** give children access to the world of technology. They can use them to operate doors, computer or radio with infrared, wireless or Bluetooth technology.
Therapy is calling again. To the standing frame. Because standing, even with a support, is important for physiological and social development.

Children with special needs should be standing when typically developing children start standing; around 12 months. Early standing programs for birth to 3 are important to ensure proper development of the femur and hip socket. Without early standing protocols, orthopedic damage could ensue that would make standing upright and moving considerably more difficult.

Children who cannot stand up on their own can stand using Ottobock/Leckey devices. We have developed standing systems to meet the varying needs of these children, depending on age and stage of development. The principle in standing is to allow the child as much freedom as possible to promote bone and muscular development but give them as much support necessary to prevent faulty posture.

Then they will be ready for fun.

1. The Totstander is a simple standing aid for toddlers from age 1 – 3.

2. The Free Stander. The unique positioning achieved by the pelvic belt enables derotation of the hips; alignment of the pelvis and centre of gravity over the base of support; accommodation or correction of flexion at the hips and knees. The robust design is ideally suited to classroom, therapy or home environments.

3. The Prone Stander is a mixture of standing device and positioning device for children with good head control and that would benefit from an active standing posture promoting back extension for strengthening of core.

4. The Squiggles Stander provides early development support for social, cognitive, and physiological development of your child. The squiggles easily folds down to take the stander with you to alternative caregivers and school.

5. The Mygo Stander enables children over four who require complex support to assume a natural upright posture with complete support of their body. Thanks to the combination of pivot footplate and knee support, children and adolescents with hip and knee contractures can stand upright safely.

6. The Horizon Stander is a sturdy, power adjustable standing device for 4 to 18-year-olds that can be used in a supine or prone position.
How do I use standing frames properly

Children with shortened muscles must complete a daily standing program. They frequently participate actively in other daily activities. They practice standing upright and depending on disease pattern, a standing frame for supine or prone positioning.

Children with very low muscle tonicity, for whom it is not easy to put weight on their feet when they first attempt to stand, should begin from a supine position. This also applies to children with pathological movement patterns and those who hyperextend backwards greatly.

Children with respiratory problems can easily use the standing frame from a prone position because they can “cough up” and the secretion can run off. The prone position is also good for children who increasingly use the forearm or hand for support.
Why stand?

1. Enables kids to interact eye-to-eye with peers
2. Improves respiration and voice control
3. Improves wellbeing, alertness and sleep patterns
4. Aids digestion, bowel function and bladder drainage
5. Stretches muscles, preventing the onset of contractures
6. Facilitates maturation of the hip joint in early development
7. Enhances circulation and blood pressure
8. Increases bone density and reduces risk of fractures
9. Improves skin integrity by relieving pressure encountered during seating
10. Why stand?
1. **Bobath Concept**
The Bobath concept is a neurologically based, interdisciplinary approach involving the assessment and treatment of neurological or developmental disorders and support in coping with everyday activities for individuals whose ability to participate in daily life is impaired by these disorders. It utilizes the interaction of motor, sensory, perceptual, cognitive, communicative, emotional and social functions in therapy. Assessment and treatment are the two major elements of the therapeutic process. Among the special features of the concept are interdisciplinary management and a problem-solving approach, combining the development of solutions for the patient’s individual problems on the one hand with a task- and problem-solving approach to therapy on the other. (Definition from the Joint Conference of German Bobath Courses)

2. **Perfetti Therapy**
Like Bobath, the neuropsychiatrist assumed that connections have to be created in the brain. But he recognized that stimuli alone would not be enough; children also have to consciously experience the movement patterns that are learned. The goal is for the patient to learn controlled movements.

3. **Vojta Therapy**
The Czech neurologist Václav Vojta believed that there are natural movement patterns which are inherent in all of us. These movements can be triggered reflexively when the right stimuli are applied in certain positions. A special advantage of this therapy is that it can be used even during infancy.

4. **Conductive Education**
Conductive education is based on the concept that the body, emotions, spirit and language influence each other, and that every person must be supported equally on all levels. Children learn how to consciously perceive their environment and integrate themselves in a group during interactions with others. Therefore this therapy approach is not considered a treatment, but is viewed as education.

5. **Occupational Therapy**
Occupational therapy practices concrete activities that are important for an independent life, such as getting dressed, eating, playing or cleaning. Naturally, it also promotes the social and cultural development of the child, who learns how to master everyday situations while moving and developing as part of society.

6. **Speech Therapy**
Speech therapy helps disabled children improve their verbal communication skills. It addresses language and speech impairments, trains the voice and pronunciation, and practices techniques against swallowing and hearing disorders. Speech therapy therefore plays a special role in social integration.
Wow, that was hard work. Now it’s time for a bath. To make sure the bath is not another workout (for child and parents), Ottobock and Leckey have devices that make bathing and washing easier.

You can’t have enough hands to secure your child, wash and massage him or her, and play and communicate with him or her. And that’s just for daily hygiene. Bathing aids are therefore very important for all involved.

If showering and bathing are pleasant, children find it easier to accept daily hygiene as an important part of their day. Every child loves the physical contact with parents (see “basal stimulation” at the right). Shower and bath supports make it easy and comfortable for the child. And for the parents as well, because they increase safety on slippery surfaces – and with the Hubfix, they also make lifting easier for the parents.

After all, the day was strenuous enough.

1. Thanks to the low centre of gravity, the Robby bath support (in two sizes for children up to 80 kg) needs comparatively little water in the tub. It can be folded up to a compact size, is easy to take with you, and can be stored almost anywhere.

2. The Leckey Advanced Bath Chair comes in 4 sizes for children up to 159 lbs. Easy access recline and adjustable feet allow you to position your child for optimal comfort during bathing. Removable cover for easy washing. Works with Tub Stand and Shower Trolley.

3. Leckey offers two bases for their bath chair, the shower trolley and tubstand. Both bases fit all 4 sizes of the Leckey Bath Chair.

4. Easy Seat with Potty insert provides a comfortable system with good positioning to give your child the time it takes to potty train or use the bathroom.

5. The Aquanaut toilet chair is the perfect product to be used in both the home and in school. The Aquanaut comfortably supports children in a forward-leaning posture that promotes relaxation, and helps them function better on the toilet.
You can use bathing and washing your child especially well for basal stimulation (a therapy method). Basal stimulation gives simple stimuli for the senses with which you can train your child’s perception and develop (nonverbal) communication. You should consciously use basal stimulation in activities of daily life.

Basal stimulation:
• Acoustic, e.g. singing, humming, talking, drumming, etc.
• Optic, e.g. light, colours, water games, mobiles
• Tactile, e.g. stroking, showering
• Physical, e.g. changing positions, massages, swinging
• Scent, e.g. flowers, food, etc.
• Taste, e.g. attractive food
Sleeping & Dreaming

The moon has risen – sweet dreams

Relax. Sleep well and have sweet dreams of the day’s events. This is most successful with proper positioning so the child can relax and spasms are diminished.

This involves not only relaxed positioning, but good relief for areas – and skin – especially subject to pressure as well as proper temperature regulation.

For night time positioning, Ottobock and Leckey offer the Sleepform System. This positioning mattress and accessories allows you and your child’s therapist to position your child optimally for skin protection, and hip joint formation, for a comfortable nights sleep. The materials also allow airflow to avoid excessive heat and sweating and promote a healthy skin microclimate.

Your child will sleep better and wake more rested.

1 Sleepform positions children from 0 to 16 years while at rest and asleep. The combination of vacuum pillow (for positioning), airflow mattress (to relieve pressure) and temperature-control sheet (to regulate temperature) supports and relieves your child.

<table>
<thead>
<tr>
<th>Leckey Sleepform</th>
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</thead>
<tbody>
<tr>
<td>Size 1* 0–1 years</td>
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<tr>
<td>Size 2  1–5 years</td>
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<tr>
<td>Size 3** 1–5 years</td>
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<tr>
<td>Size 4** 5–18 years</td>
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</tbody>
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* fits into child’s bed
**fits into single bed
Why positioning during sleep is so important

Your child spends most of the day sleeping. Good positioning is an essential step for physical development and is decisive for later mobilization. Conventional household objects (positioning tubes, pillows, towels, blankets) can move out of place, with potentially devastating consequences:

- The child moves back into a faulty position.
- Pressures points can develop because the material no longer relieves the areas where skin is at risk.
- The lack of head-trunk support can lead to swallowing problems.
- Children with changing muscle tonicity can easily slip under the pillows and even suffocate.

Positioning systems relieve the skin, regulate temperature and ensure stable and safe sleep.