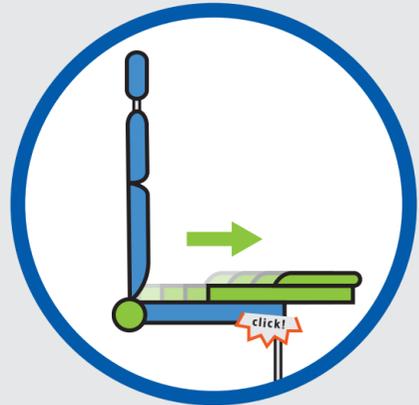


The MerLan Seating System is so easy to handle...



Sliding out the MerLan seat unit

- » The seat unit is easy to slide out and locks in the extended position, allowing the patient to be seated easily and safely.



Placing the patient

- » The patient is placed in the seat with the MerLan orthosis already put on.
- » The "MerLock" of the MerLan orthosis is fastened to the lock of the seat.



Positioning the patient

- » The seat unit is pushed back in.
- » The correct positioning of the patient is supported by the back rest, the orthosis and stabilization of the patient's ischial tuberosity. The effort of the caregivers is reduced.



Correct sitting position

- » The MerLan seat unit locks in the final position.
- » The MerLan orthosis is fastened by "MerLock". This ensures the correct sitting position.
- » Headrest, backrest and lumbar wedge are removed with little effort.



MerLan seat stabilization system Sitting redefined



Learn more about the MerLan Seating System

Your competent MerLan service partner:

MerLan

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MerLan® Seating System

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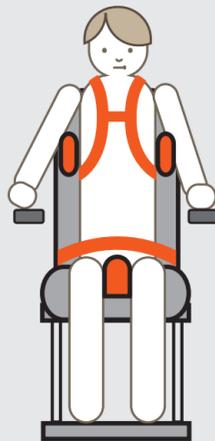
Practical problems typical of conventional shell seats



Up to now patients who are unable to get into an optimal sitting position (due to scoliosis, pelvic misalignment, curvature of the spine and rotation of the pelvis etc.) have been supplied with seat shells. An optimal and stable upright position cannot be achieved by the existing positioning and fixation of the pelvis. This is a fundamental problem of any seat using a hip belt.

Lack of stability in seat shells

- » A typical hip belt¹ fixes the seat, but exerts frontal pressure on the iliac crest: as a consequence the pelvis tilts backwards.²
- » The pelvis slips into a kyphosis by the pull of the belt.³
- » The result is an **unstable sitting position**, which causes many **subsequent problems**.



Kyphosed posture with curved back

The typical posture in a seat shell in no way corresponds to the normal, desirable sitting position.

- » The unstable pelvic position causes a curved back and tilts head and shoulders forward.
- » Tension in the adductor muscles increases.

Belts and pads restrict movement
Poor posture causes poor control of the head.

- » Belts are needed to straighten the torso.
- » This restricts arm movement.
- » Head control deteriorates, too, and there is increased salivation.

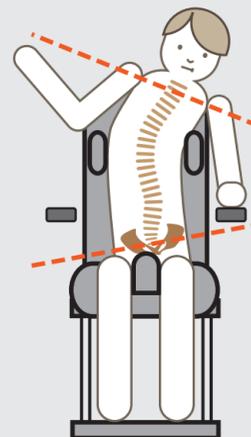
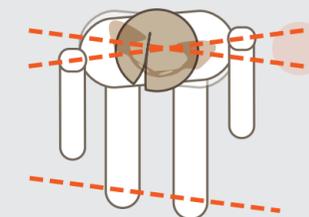
A sitting position with many compromises

Despite the position supported by belts, pads and wedges more problems may occur:

- » The desired vertical sitting position cannot be held due to the unstable pelvic area.
- » One or more body axes get out of balance or out of the perpendicular respectively. This posture often becomes permanent.
- » Often one arm is needed solely for support and so becomes almost useless for activities or therapeutic intervention.

Further problems

- » The rotation of the pelvis and the spine also occur along the vertical axis, here shown in a bird's-eye view.
- » **Overall, it rarely reaches a well-balanced posture. Mostly the patients require a lot of energy to maintain their position.**



MerLan — the innovative Seating System

The *MerLan Seating System* serves helps to seat physically disabled people with muscle diseases or spastic paralysis in a stable position. It is better suited to fulfil this task than existing positioning aids. This benefits the patients, whose sitting position and mobility often improve significantly. At the same time the *MerLan Seating System* makes work easier for the nursing staff, who can now get people with disabilities into a therapy-friendly sitting position with much less effort.

1



Main system components

Pelvis-enclosing MerLan orthosis

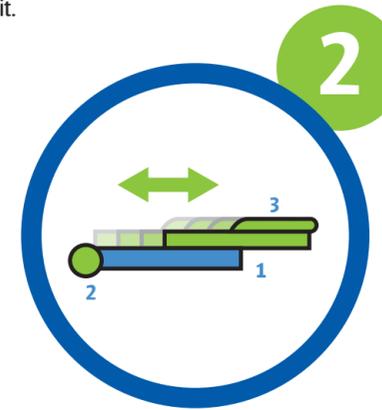
The *MerLan* orthosis is the basis of the system — only by employing this component can the desired optimized seating position be reached and maintained.

- » Pelvis-enclosing, customized seat-orthosis with contact flaps on the iliac crest.¹
- » Inclusive of attachment system “MerLock” to fasten the orthosis to the *MerLan* seat unit.

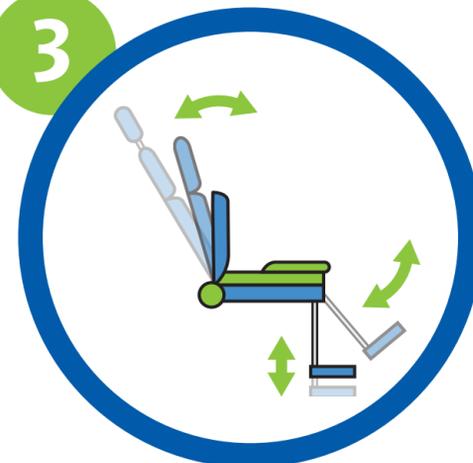
Sliding MerLan seat unit

The seat unit¹ slides forward, thereby allowing correct and easy positioning of the patient.

- » Locks into an extended position to put the patient on the seat.
- » “MerLock” fastening point² for attaching the *MerLan* orthosis.
- » Locks into pushed-back position, thereby positioning the patient correctly; no repositioning necessary.
- » Includes padding with adjustable lordosis support³ and cover.



3



Therapy chair for MerLan Seating System

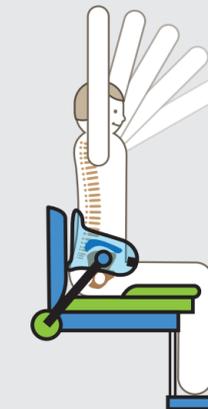
Custom-made, individually adapted:

- » Back rest angle continuously adjustable (-5 to 25°), armrests, seat height and angle continuously adjustable (-5 to 30°)
- » Segmented backrest
- » Footrest with fastenings adjustable in angle and height; standard headrest with padding and cover.
- » Fold-down tray with border edges.
- » Four-point hip belt for safe positioning without *MerLan* orthosis, four casters (with brakes), push handle.

Improved sitting position and therapy support by the MerLan Seating System

Stabilization of the pelvic and lumbar system

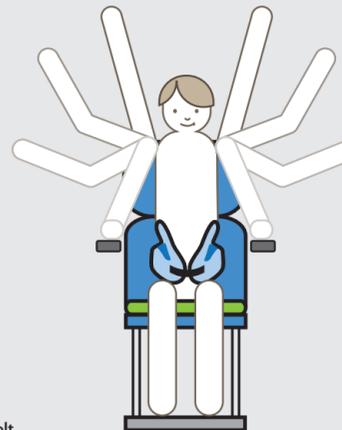
- » The *MerLan* system does not require a seat shell, instead a specially adapted therapy chair is installed. However, if necessary it can be integrated into a seat shell or an existing therapeutic aid. A stable sitting position is achieved mainly by the *MerLan* orthosis.
- » The orthosis encloses the pelvis and puts downward pressure on the iliac crest by contact flaps.
- » By using the “MerLock” system the *MerLan* orthosis is attached to the locking point of the *MerLan* seat unit, pulling the orthosis back and down.
- » Result: a **stable, permanent sitting position** with the **correct position of the pelvis and lordosis**



Optimized sitting with the MerLan system

By using the *MerLan Seating System*, patients can get into a sitting position which comes close to the ideal — depending on the capacity of the patient.

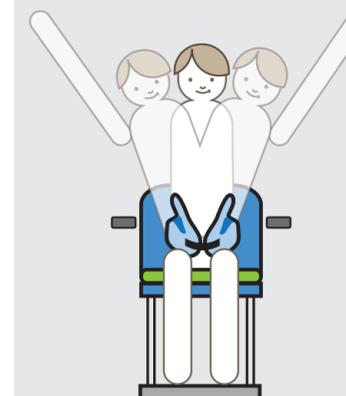
- » Upright sitting position
- » Correct positioning of the pelvis
- » Improved head control, reduced salivation
- » Reduced strain on the adductors because of a better hip angle.



Greater mobility of arms and torso

Apart from the *MerLan* orthosis, which replaces the hip belt, extra belts and pads become unnecessary in most cases.

- » Because of the stable seat base, arm mobility can often be increased significantly. Both arms can be mobilized, if necessary.
- » The *MerLan* orthosis is worn under the clothing and is almost invisible in everyday life.



Variable sitting position with more autonomy

The stable seat base of the *MerLan Seating System* supports active, mobile sitting.

- » Mobility of the torso improves, as well as that of the arms.
- » The upper half of the segmented back rest can be removed, thus allowing even more mobility, since the support points for head and back are eliminated.

