



ATLAS 2030 EXO

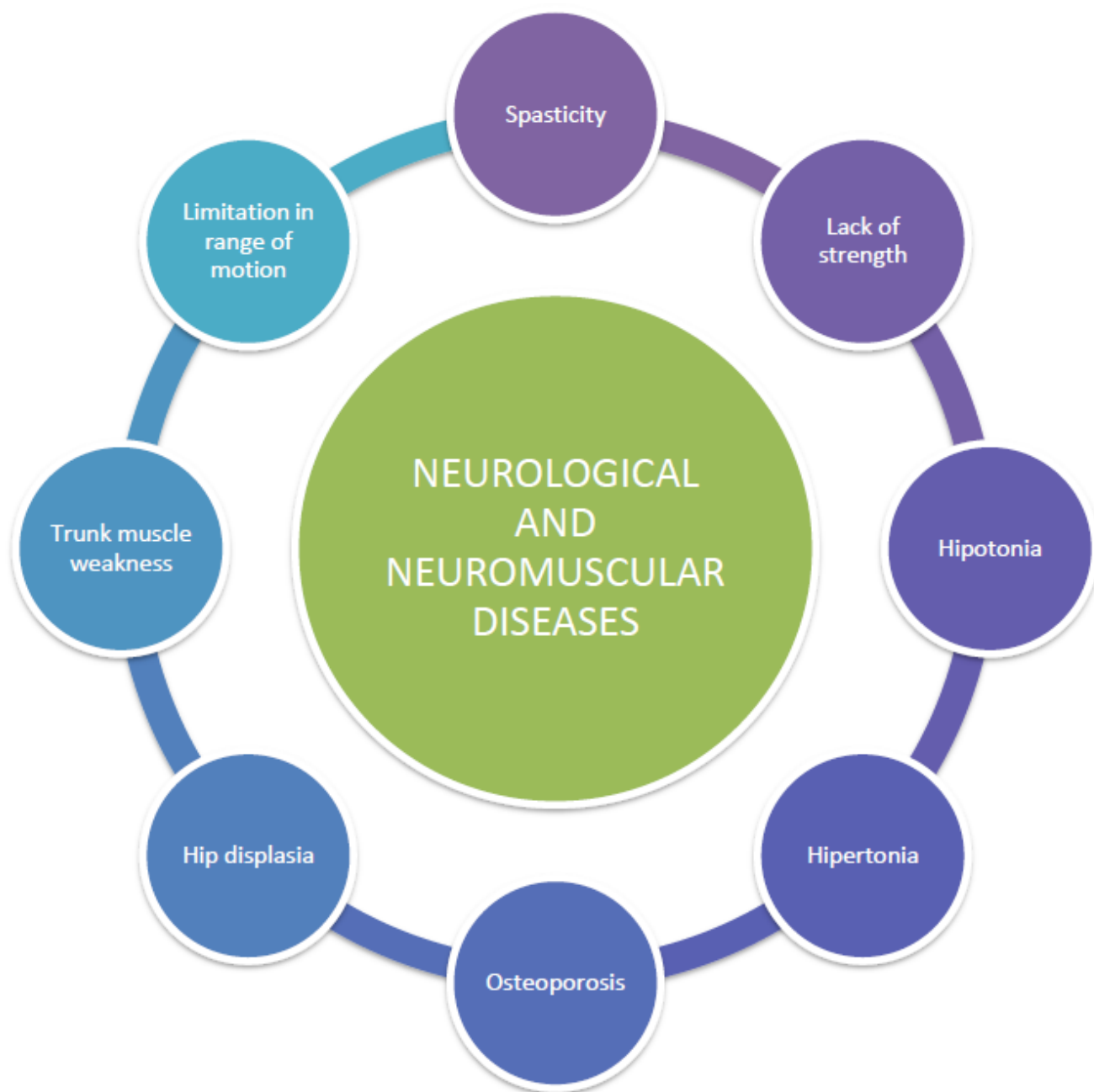
PEDIATRIC EXOSKELETON

¿WHAT IS ATLAS 2030 EXO?

It is the only pediatric portable exoskeleton in the world providing mobility to pediatric patients who have lost the ability to walk due to weakness or spasticity caused by neurological diseases.

It provides mobility in all space dimensions thanks to its 8 motors that act as artificial muscles. It can perform hip, Knee and ankle flexion and extension and hip abduction.

CLINICAL INDICATIONS



INCLUSION CRITERIA

The maximum user weight: 35 kg.

High: Maximum 135 cm – Minimum 100 cm.

These values are indicative since there is great variability in the sizes of the extremities and the height of the user. The final inclusion criteria to consider are those related to the length of the lower extremities, the width of the hip and the weight of the user.

Distance between hip and knee: 24-33 cm

Distance between knee and ankle: 23-32 cm

Hip Width: 24-35 cm

Flexion at the hip and knee in the sagittal plane should be below or equal 20°.

Neutral ankle dorsiflexion (90°) with or without orthosis.

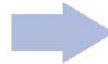
Not having musculoskeletal impairment that could interfere with device adjustment or that could cause any damage due to weight bearing. Medical prescription for standing and weight bearing.

Not having skin integrity issues (illness, allergy, hyper sensibility...) including wounds and other user skin alterations in contact with ATLAS 2030 surface.

CLINICAL BENEFITS

WHEELCHAIR BIDEN

- ↑ Contractures
- ↑ Scoliosis
- ↑ Hip Subluxation
- ↑ Osteopenia
- ↓ Respiratory
- ↓ Self-esteem



ROBOTIC GAIT THERAPY

- ↑ Dynamic stretching
- ↓ Deformities
- ↑ Strength and mobility
- ↑ Bone density
- ↓ Spasticity
- ↑ Psychosocial benefits

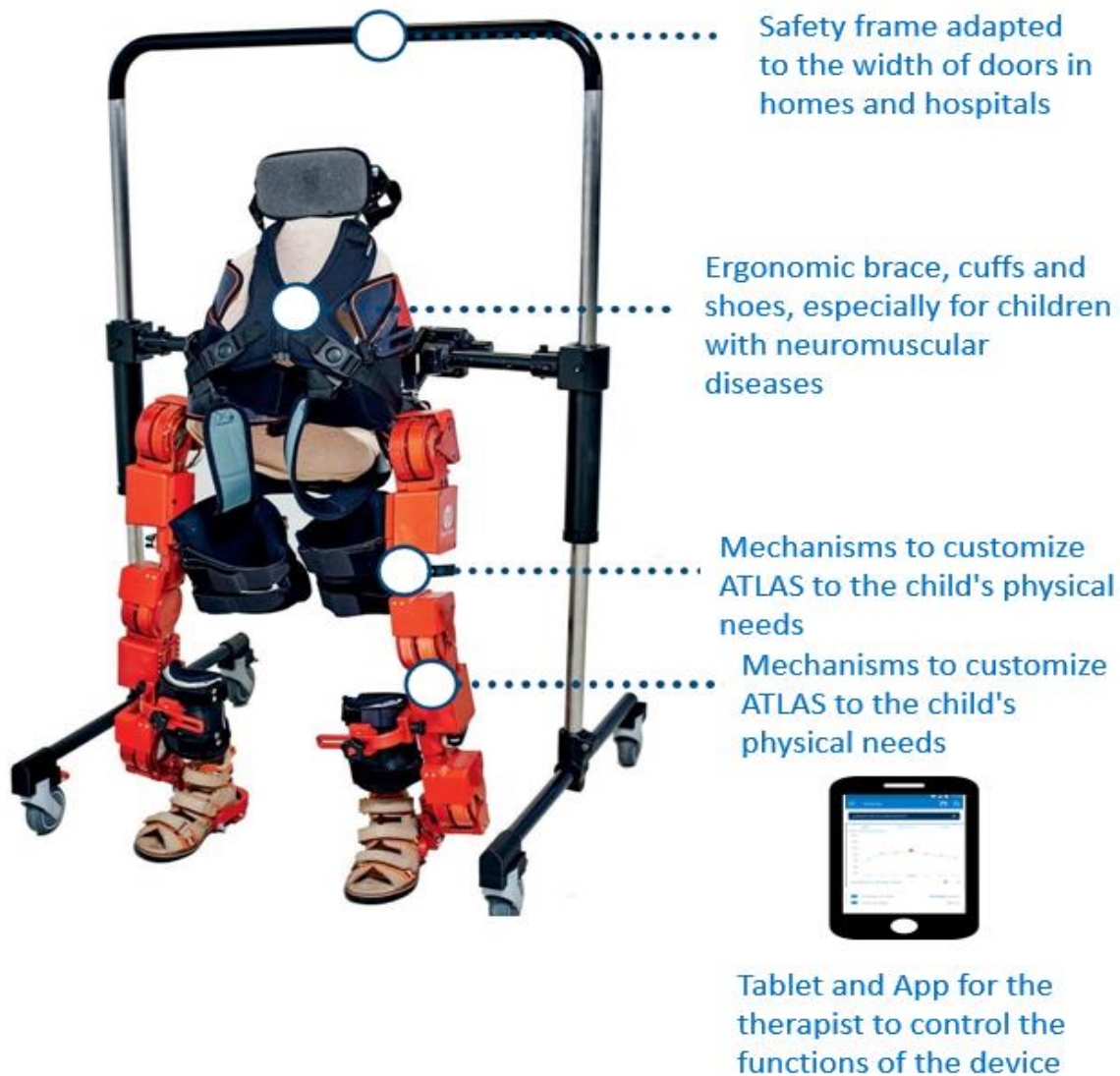


FUNCTIONING



- ✓ Fast to don/doff
- ✓ Safety frame adapted to the width of doors
- ✓ 360° environment interaction
- ✓ Adjustable gait parameters (step length and height, speed)
- ✓ Adjustable hip and knee flexions
- ✓ Adjustable hip ABD
- ✓ Data in real time
- ✓ Walking forward and backward
- ✓ Optimum body alignment
- ✓ Automatic and strengthening programs

SPECIFICATIONS



- Device Weight: 20 kg.
- Battery lifetime: 2,5 continuous hours.
- Maximum speed: 12,6 steps per minute or 0,05 m/s.
- Power: electric.



Families and Therapists Testimonies



Project approved and funded by:

