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*We take a closer look at the world's first paediatric exoskeleton through the eyes of its user's.*



17 million children are unable to walk due to neurological diseases. This lack of movement causes them further complications which can be delayed, even avoided if movement is maintained.

Here, we take a closer look at what the ATLAS2030 is and how it has effected Alvaro, a regular user for the past three years. Detailed from his perspective and of those who use the device with him the most.

For the full interviews please email - [clinic@marsibionics.com](mailto:clinic@marsibionics.com)

## **ATLAS2030** Paediatric exoskeleton's

Enabling motion for those in need

*Innovation  
Training  
Clinical research  
Treatment specialists*



## Who is Alvaro

A regular ATLAS2030 user with a diagnosis of SMA (Spinal Muscular Atrophy)

### The Challenge

- Providing safe, dynamic mobility exercises
- Maintaining engagement and motivation
- Increasing the dose of therapy

### The Solution

- Adaptable Design
- Hands Free
- Reduced burden on the therapist
- Integrated Outcome Measures

## The Benefits of ATLAS Therapy

### Three perspectives

#### Alvaro perspective

##### What do you like about ATLAS?

'I like to be able to walk whilst doing fun activities. I particularly like using the crossbow and sword fighting.'

##### How does the ATLAS make you feel?

'Using the exoskeleton makes me happy.'

##### Why?

'I don't know why I get that feeling. Usually, I'm sitting in a chair and I can't do anything. With ATLAS I can walk, play with my friends and be more independent.'

'I like that when I look in the mirror I am straight.'

##### Would you like one at home?

'Yes, I would like to be able to move around smaller spaces. My chair takes up a lot of space. It would also be cool to climb up and down stairs at home.'



'His self image and confidence has improved so much. Its hard to put into words the impact this technology has had on us.'

Ana Rosa Garcia / Alvaro's Mother

#### Alvaro's Mothers perspective

##### What do you like about ATLAS and how has it impacted your son?

'The health benefits are important. His range of movement, respiratory function, posture have all improved.' 'His gastrointestinal function is much better and he doesn't need medication anymore'

'he recovers much quicker from general sickness.' 'But what is most important is that it's like game time for him. So he wants to do the therapy. Normally he is just lying down and being passive.' 'Because he is standing, his point of view has also changed. The way he looks around is different and the way he looks at himself is. He has more confidence.' 'It's a dream come true.'

#### Alvaro's physiotherapist

##### What do you like about ATLAS?

'Rehab for children like Alvaro can be very static. So getting them into something that's mobile, whilst being able to play games means they are happy and having fun. They are engaged.'

'I like the Intent to move recognition feature, its one of the most important parts. It offers the right amount of support and resistance, so that the child can engage but not get exhausted too quickly.'



'The tablet allows you to change the range of movement restrictions, adapting it to the child. This is very important for children like Alvaro.'

'It can be adapted in many ways through the app and it records a lot of information so you can track the progress.'

'For me the best therapy is movement. This can be really challenging for the therapist and child with severe impairments. ATLAS allows this in a safe way.'



#### Adaptable Design

Patented ARES technology mimics the human muscle.

Intelligent actuators can manage contractures and spasticity.

Adjustable orthotics offer fully adaptable support system.

#### Hands Free

External frame offers complete stability.

Inclusion of fun and functional activities can be achieved like basketball or painting.

Upper limb and trunk activities can be done in dynamic and static postures.

#### Reduced burden on the therapist

No lifting is required.

Supportive harness and strapping system offers complete support, freeing the therapists hands.

Intuitive application designed for ease of use.

#### Integrated Outcome Measures

1000's of data end points.

Integrated range of movement, strength and gait measurements

Clear and concise analytics.