SYMBIONIC HAND ORTHOSIS FOR PEOPLE WITH DUCHENNE MUSCULAR DYSTROPHY


Introduction

Unrestricted functioning of the human arm and hand is essential for autonomy and personal quality of life!

DMD is an X-linked disorder affecting 1 in 3500-6000 boys. It causes muscle degeneration and decreased life expectancy, but recent pharmaceutical advances have increased this to over 35 years old. The need of an active and adaptive support for people with DMD is imminent in order to reduce caregiver workload, improve the quality of life and increase independence.

Objective

Our objective is to create systems that co-adapt automatically. Moreover, it is of great importance that any wearable orthosis should be inconspicuous, in order to enhance social acceptance.

Conclusions

Boys with DMD have a growing need for assistive technology that supports hand function. Such technology is required to grow and adapt to the user.

Contact Information

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Background

In order for the human to control an active device, a control interface is needed. This interface aims to communicate the intention of the user to the active device in the form of control commands. These commands result to the intended by the user movement.

Acknowledgments

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References


