



Your winning game  
to recovery

**AXINE2IS**  
ADVANCING REHABILITATION

# Intensive functional therapy for patients with motor and cognitive disorders

Axinesis helps patients with motor and cognitive disorders achieve faster recovery and return to social participation with an intensive, functional and motivational therapy.

Our neurorehabilitation technologies provide intensive, functional movement practice, supported by personalized therapeutic gamification to enhance patient engagement. This stimulates neuroplasticity, leading to improved cognitive and motor skill development and faster rehabilitation, with impacts extending up to 6 months after therapy<sup>1</sup>.

## Axinesis neurorehabilitation devices

INNOVATIVE, COST-EFFECTIVE TECHNOLOGIES FOR INTENSIVE FUNCTIONAL REHABILITATION

### Self-adaptive therapy

Our neurorehabilitation devices adapt to each patient's needs, providing everything from full movement assistance to active resistance.

### Broad indications

Suitable for upper extremity rehabilitation in patients of all ages and for numerous conditions, including stroke, Parkinson's disease, multiple sclerosis and cerebral palsy.

### Optimize outcomes

Providing up to 1,000 functional movements per session, the devices provide intensive and functional therapy for maximum impact on brain plasticity.

### Positive ROI

With higher staff productivity, faster patient recovery and greater motivation all-round, our solutions deliver a strong therapeutic, social and financial return on investment.

### Increase motivation

Therapeutic gamification and easy to use graphical interfaces allow patients to play a key role in their own therapy.

SOLUTIONS FOR ALL STAGES OF THE RECOVERY PATHWAY, FROM CENTRALIZED AND SUPPORTED TO DECENTRALIZED AND INDEPENDENT CARE

CENTRALIZED CARE  
With support

DECENTRALIZED CARE  
Independent

RECOVERY OF MOTOR AND COGNITIVE SKILLS

### REApplan®

Drive early recovery of upper limb function using end-effector robotics with inbuilt gamification to increase motivation and optimize rehabilitation outcomes

### REAtouch®

Continue high-intensity functional rehabilitation that delivers very high motor and cognitive engagement through continued motivational stimulation

### REAtouch® Lite

Bring intensive functional therapy to the patient's home with our portable interactive neurorehabilitation device

<sup>1</sup>Dehem S. et al. (2019). "Effectiveness of upper-limb robotic-assisted therapy in the early rehabilitation phase after stroke: A single-blind, randomised controlled trial." Ann Phys Rehabil Med. Sep;62(5):313-320

# REApplan<sup>®</sup>

## Robot assisted upper limb rehabilitation, enhancing functional outcomes and return to social participation

REApplan<sup>®</sup> is an end-effector robot for intensive, auto-adaptive upper limb rehabilitation, with inbuilt therapeutic gamification to increase motivation and optimise rehabilitation outcomes.



### REHABILITATION WITH END-EFFECTOR ROBOT

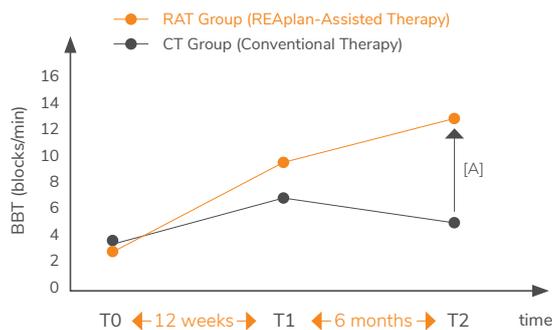
The REApplan<sup>®</sup> upper limb rehabilitation robot enables **intensive therapy** with up to 1,000 movements per session, supported by personalized therapeutic gamification. The end-effector structure allows practice of a **wide range of functional tasks**, without requiring morphological adaptation, making it **easy to integrate** into your clinical routine.

The REAlab software enables real-time auto-adaptive movement assistance ranging from passive to resisted active. This allows a **very early start to upper limb rehabilitation**, and ensures that therapy adapts to each patient's motor performance and stage of recovery.

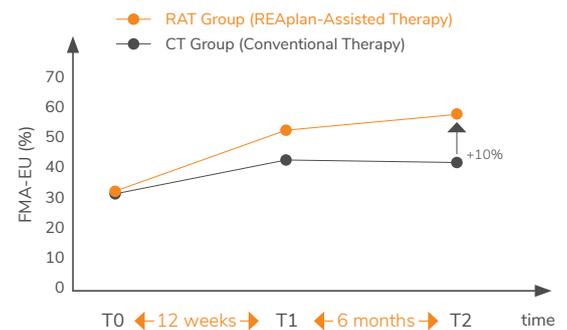
Robot assisted therapy with REApplan<sup>®</sup> delivers clinically proven **superior results** compared to standard therapy:

- Increased motor control with a prolonged effect up to 6 months after therapy
- Increased gross manual dexterity with a prolonged effect up to 6 months after therapy and transfer to improved activities of daily living
- Improved social participation

#### Gross Manual Dexterity

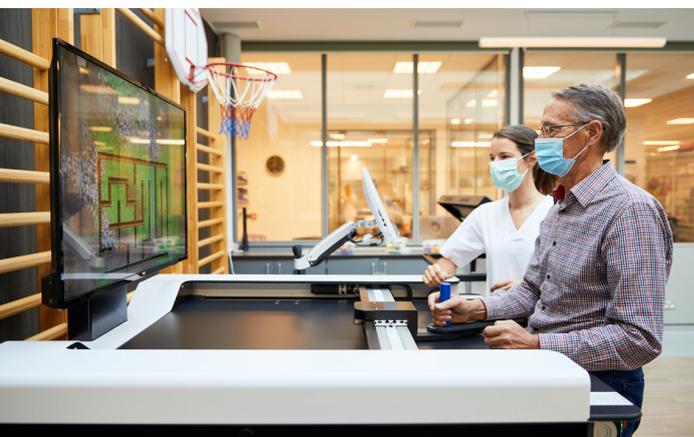


#### Upper Limb Motor Control



Compared to conventional therapy (CT), RAT:  
[A] Increased gross manual dexterity by +150%, with a continued increase, even after therapy stopped at 12 weeks

Source: Dehem S. et al. 2019, UC Louvain



Based on real-life hospital cases, REApplan<sup>®</sup> robot assisted therapy devices have a **pay-back time** of 2-2.5 years.

# REAtouch®

## Intensive functional therapy for upper limb rehabilitation

REAtouch® is an interactive device for intensive uni- and bimanual functional rehabilitation.

Designed to strengthen neuroplasticity and optimize functional outcomes, the device motivates patients to make more than 1,000 movements in one single session. This means 1,500 to 2,000 touchpoints, or browsing more than 60 meters on the screen.

The use of therapeutic gamification creates very high motor and cognitive engagement through continued motivational stimulation.



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### HIGHLY MOTIVATING

With more than 25 functional uni- and bimanual **therapeutic video games**, patients are highly engaged in therapy time, which **helps promote neuroplasticity**. Movements, tasks and game complexity auto-adapt in difficulty according to patient performance.

The 43" screen's reactive surface **allows interaction** with dedicated objects, bringing the **functional dimension** into the therapeutic experience. Patients can choose from a range of playful objects in multiple shapes for manipulation and construction tasks.

Each patient has a personalized profile with an avatar, shopping account and specific personal goals, encouraging active participation in their therapeutic progress.

### EASY TO USE

REAtouch® delivers **intensive uni- and bimanual therapy activities** with a platform that is **easy to use** for therapists and patients. It encourages simple voluntary gestures/movements without guidance or facilitation.



# REAtouch® Lite

## Decentralized upper limb rehabilitation

The REAtouch® Lite portable rehabilitation device enables intensive functional neurorehabilitation in settings ranging from a rehabilitation centre to the patient's home.



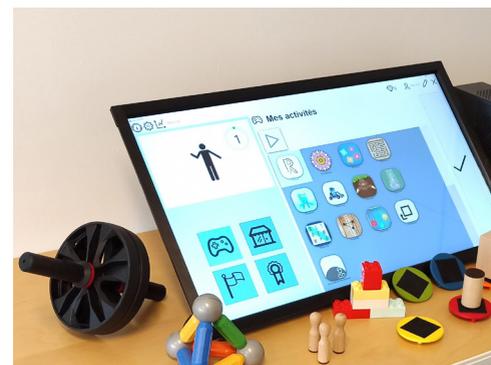
### INTENSIVE UNI- AND BIMANUAL NEUROREHABILITATION AT HOME

REAtouch® Lite offers a portable alternative to REAtouch®, making it **accessible** to patients who, for various reasons, are unable to take part in intensive therapy sessions in the rehabilitation centre.

The 32" screen has a tangible user interface with up to 50 touchpoints, facilitating **engaging touch and audio-visual interaction**.

REAtouch® Lite can be used as **stand-alone or integrated** in a network, connecting the REAtouch® and REAtouch® Lite into **one patient experience**.

It is available in a **desktop** version or integrated into an **over-bed / over-chair table**, allowing decentralized rehabilitation in the patient's room or at home.



### Useful feedback, data and reports

REApplan® and REAtouch® (Lite) provide immediate and rich feedback to maintain motivation and maximize motor and cognitive learning.

Multiple assessment apps record and analyze every patient movement, providing detailed and helpful performance information.

Reports containing objective and comparable patient performance data can be easily downloaded at any time to review progress and plan rehabilitation progression.

# The Axinesis difference

Our cost-effective and research-backed rehabilitation technologies are designed to enhance neuroplasticity and optimize recovery.



## Highly engaging

Intuitive graphical interfaces and personalized, self-adaptive games create a playful, stimulating environment for high patient motivation.

## Developed by experts

Our games are developed in collaboration with neurorehabilitation experts and based on therapeutic data to optimize treatment algorithms and therapeutic software.

## Simple to use

Our devices don't require morphological adaptation, making them user-friendly for both therapists and patients and easy to integrate into your clinical routine.

## Easily adaptable

Our robust adaptable workspaces are designed to accommodate patients while standing, sitting, or in wheelchairs, whatever their condition.

## Continuum of care

By facilitating recovery from early rehabilitation to well after discharge, our solutions ensure continuity in therapy and patient progression.

## Cost-effective

Our cost-effective and clinically proven neuro-rehabilitation devices help optimize patient outcomes while simplifying workflows and maximizing therapy time.

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REApplan®, REAtouch® and REAtouch® Lite are complementary rehabilitation technologies covering the full patient care pathway to facilitate faster recovery and better patient outcomes while reducing healthcare costs.



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