



## Guided Self-Rehabilitation Lab

Break the cycle of physical inactivity  
Engage patients in their rehabilitation



## Our mission

Transforming proven therapies into user-friendly devices for superior patient compliance and results.

Dessintey develops and markets intensive rehabilitation technologies to accelerate recovery and ensure greater patient quality of life.

Our mission is to assist patients throughout their healing and rehabilitation journey.

Our technological solutions aim at increasing, diversifying and personalizing their daily therapy program from the moment they join the rehabilitation center until they return at home.

Dessintey relies on the latest scientific evidence in neuroscience and on its close contact with therapists and doctors to offer simple and efficient technologies.

The co-founders,

Nicolas FOURNIER,  
Davy LUNEAU,  
Pr. Pascal GIRAUX.

# Break the cycle of physical inactivity

Ageing population is a challenge for healthcare systems. Collectively, we need to find solutions to develop intensive and diversified care pathways.

Furthermore, with current resources and organisations, it is becoming increasingly difficult to meet international guidelines in terms of rehabilitation intensity and frequency especially in neurorehabilitation:

- The **World Stroke Organisation** recommends 3 hours of rehabilitation per day after a stroke.
- According to Barrett et al. (2018), **prolonged inactivity periods** reach 5.3 hours on weekdays and 6.8 hours during weekends.

These periods maintain deconditioning effects that affect patients' recovery.

Studies show that increasing activity time for patient is an **essential factor in the functional recovery and autonomy maintenance**.

## Our vision The Guided Self Rehab Lab

Based on the previous observation, it is therefore essential to involve patients in their rehabilitation. Therapists and relatives should also motivate them to increase the amount of daily activity.

Integrating a guided self-rehabilitation lab into the care pathway **helps to reduce inactivity time** and makes the patient actor in his or her own rehabilitation.

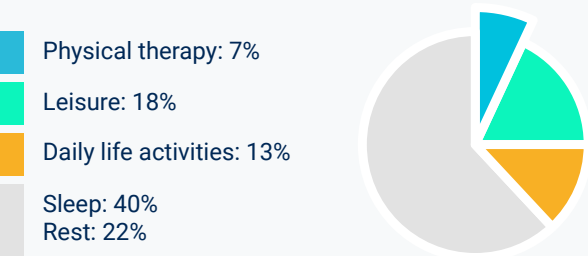
It consolidates and improves motor recovery, in addition to conventional therapy. Thanks to this innovative approach, **risk of physical condition loss and autonomy loss are limited**.

The **therapists remain essential** and guide the patient towards exercises adapted to their recovery stage.

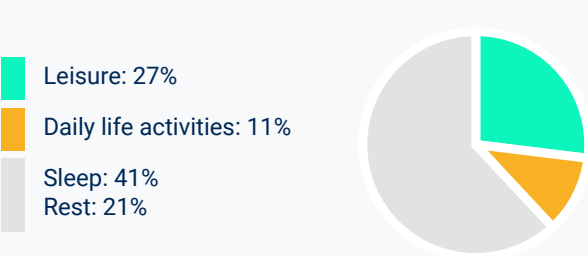
### Daily life of a rehab patient

Source: Barrett et al. (2018)

#### During weekdays



#### During weekends





# SRT | Self Rehabilitation Technology

Self Rehabilitation Technology stimulates the patient in an intuitive and playful way with one or several spheres manipulated in a **single or two-handed mode**.

These devices can be used outside conventional rehabilitation sessions: in a **self-rehab lab** or in **supervised group therapy sessions**.

Patients **focus on movement execution and repetition**, working on cognitive and motor activities.

Their actions are **displayed in real time** on the screen.

Set of **3 devices to adapt to all kind of patients**, from less motor impairments to severe.



SRT5

- Proximal movements
- Large range of motion



SRT2

- Bimanual coordination
- Medium range of motion



SRT6

- Attentional training
- Small range of motion
- Definition of the active zone

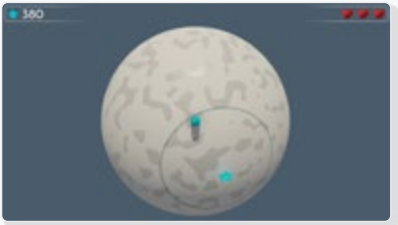
Ultra-intuitive, SRT devices are equally accessible to **children and elderly patients**, in both **sitting and standing** positions.

Patients can carry out activities with one or both hands, alone, with other patients or their relatives.  
Different cognitive and motor activities are already available to keep patients motivated and engaged in their rehabilitation.

## Indications

- Neuro
- Orthopaedics
- Geriatrics
- Paediatrics

## Large diversity of motor & cognitive exercises



Fine movements,  
attention, coordination



Cognitive flexibility,  
memory



Visual representation,  
mental rotation



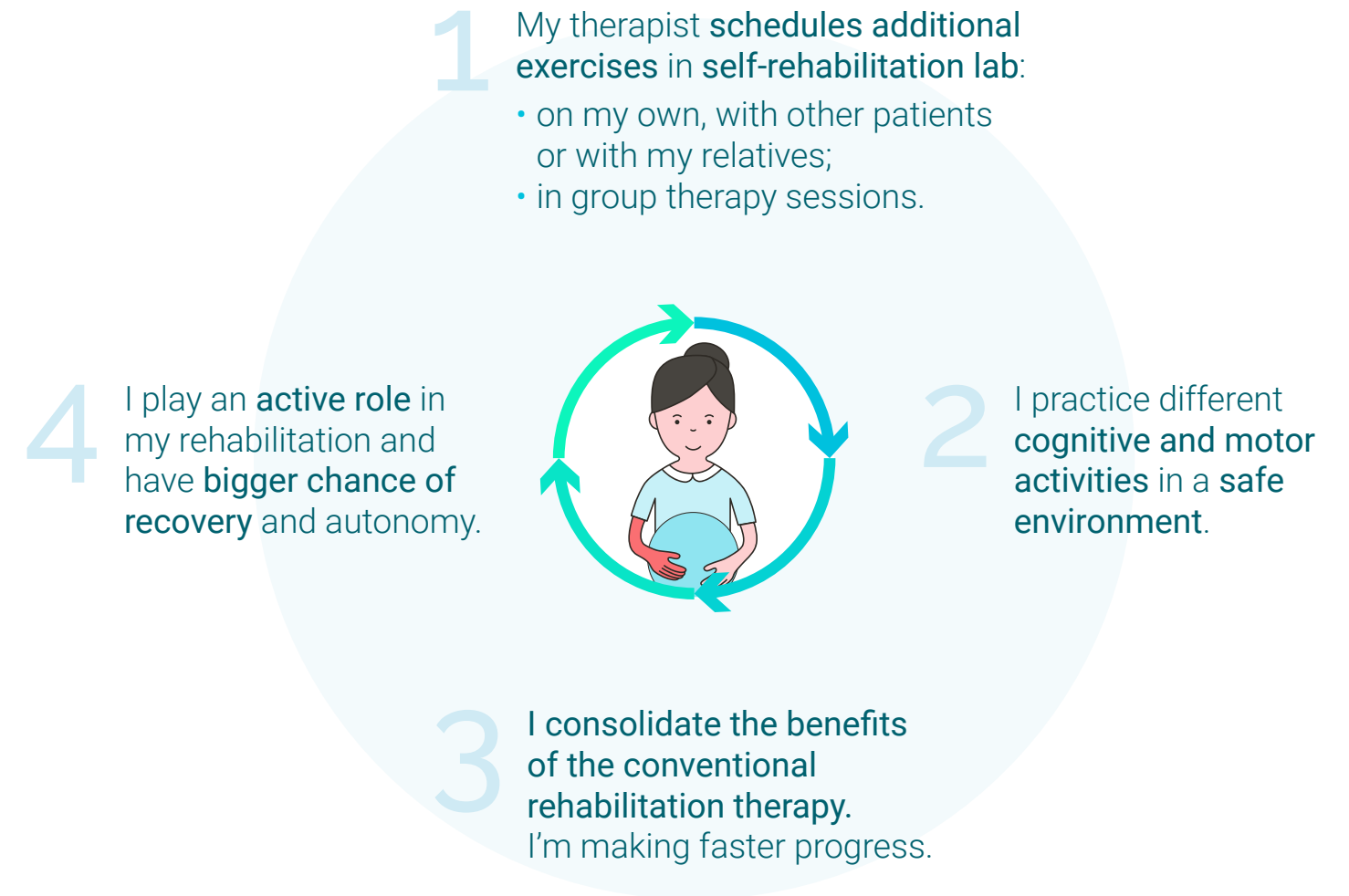
Memory, attention



## Vicious circle of inactivity



## Virtuous circle for recovery



*Frequent activity (even for a short time) is important for recovery and recommended by international guidelines.*

## Why set up a guided self-rehabilitation lab?

- 1 Engage patients in their rehabilitation.
- 2 A rich environment based on cognitive and playful activities to stimulate the patient and increase physical activity.
- 3 High level of clinical evidence on self-rehabilitation approach.
- 4 Ultra-intuitive and easy for all patients.
- 5 Intensive rehabilitation to encourage movement repetition.
- 6 Bimanual or unimanual motor training to constrain the use of the impaired limb.
- 7 Safe, seated or standing position.
- 8 Real-time adjustment of difficulty level according to patient recovery.
- 9 Performance monitoring (activity time, number of movements, etc.).
- 10 Activities can be performed alone, with relatives or during group therapy session.

## Patients actors of their rehabilitation



*"I find that this device has the advantage of being very engaging and easy to use, so there's no hesitation—we just go for it. It encourages us to perform simple movements naturally. I will try all the different devices available to maximize my chances of recovery."*

Claudine, patient  
- LNA Romainville Rehabilitation Insititue (FR)



*"This allows him to come out of his room—on his own as well—which wasn't something he used to do before. It gives him an opportunity to get out and connect with others. It's really great!"*

Philippe, Ulysse's father  
- Alpha Champdieu residence (FR)

MADE IN FRANCE

@ Dessintey



Photographs : Cédric Daya & Dessintey



Head Office **FR**

Parc Technologique Metrotech, Bât. 6  
FR – 42650 St-Jean-Bonnefonds

Dessintey GmbH **DE**

Worringer Straße 30  
DE – 50668 Köln

[contact@dessintey.com](mailto:contact@dessintey.com)

[dessintey.com](https://dessintey.com)