

# MEDTECH EXOSKELETON



## A2PER



Technology matured by

**Actuator**

**Exoskeleton**

**Gait Rehabilitation**

A2PER applies a torque to the segment downstream of the mobilized joint

(1 active rotational DOF mobilized, leaving 5 passive/free DOFs), which results in:

- Cancellation of the two forces of the applied torque
- No stress on the joint
- Physiological functioning of the joint, whose natural kinematics are respected
- No adjustments required → time savings
- Freedom for the limb to describe its kinematics
- Solution dedicated to post-stroke rehabilitation

The mechanical transmission of the motor cut-off can be done:

- From the pelvis to the thigh (neighboring segments)
- From the pelvis to the leg (distant segments)
- From an external support to any limb (manipulation)

## Physiological Joint Actuator for Gait Rehabilitation Exoskeleton

This actuator could be used on non-medical exoskeletons

This actuator could be used on isokinetic exercise machine

The solution could be applied to upper limbs



TRL: 3-4

Patent Application FR 2401973 of 02/28/2024

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