

EXOATLET

Contraindications for use:

- **Viscerogenic pathology** in the decompensation stage.
- **Acute thrombosis, thrombophlebitis**, mild (Stage 0-I) and moderate (Stage IIa) lymphedema of lower limbs, varix dilatation or trophic disorders in places of fixing of the exoskeleton.
- **Inability to stay in a vertical position** for a long time (more than 30 minutes) due to pathological vegetative reactions (orthostatic hypotension, tachycardia, bradycardia, arrhythmia, etc.), epileptic seizures and other paroxysmal impairment of consciousness.
- **Pasticity above level 3 on MAS** or its significant growth after walking in the exoskeleton.
- **Circulatory inefficiency** over II A class according to classification of N.D. Strazhesco, V.H. Vasilenco.
- **Paroxysmal form** of ciliary arrhythmia.
- **Myocardial infarction** less than 6 months ago.
- **Stenocardia or coronary heart disease** at rest on ECG.
- **First degree atrioventricular block.**
- **Sinus bradycardia** (less than 50 beats per minute) and tachycardia (more than 90 BPM).
- **Uncontrolled arterial hypertension** (syst. pressure more than 180 mmHg, diast. pressure more than 100 mmHg).
- **Clinically significant cardiac anomalies.**
- **Aortic and cerebral aneurysm.**
- **Major cognitive** and verbal disorders.
- **Ununited fractures or unstable osteosynthesis** of spinal column, pelvic bones, lower extremities.
- **Ankylosis, contractures, pronounced arthrosis**, acute arthritis/synovitis, state after operations of total/partial arthroplasty, lower limb joint replacement.
- **Progressive/persisting compression of spinal cord**, its roots or blood vessels, cauda equina syndrome, meningeal syndrome, myelomeningocele/hematomyelia.

IT ALL
BEGINS
WITH THE
FIRST
STEP

X

X

EXOATLET

FOCUSES ON THE DEVELOPMENT AND PRODUCTION OF MEDICAL EXOSKELETONS THAT ALLOW USERS TO WALK AGAIN

We create efficient methods of physical and social rehabilitation.

Currently EXOATLET is used to treat patients suffering from lower limb deficits after spinal cord injury, cerebral palsy, stroke and multiple sclerosis.

Pending CE and FDA market clearance
ExoAtlet is being used in 36 hospitals in Russia and 9 hospitals in South Korea.

Please visit www.exoatlet.com
for advanced information

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2019

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EXOATLET II
MEDICAL
EXOSKELETON
FOR PHYSICAL
AND SOCIAL
REHABILITATION
WITH FES

EXOATLET II

EXOATLET

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EXOATLET

BASIC INDICATIONS FOR USE:

Injury sustained:
no fewer than 14 days ago.

All parts of the individual's upper limbs
function at level 5 on the MRC scale.

Spasticity up to
level 3 on the Modified Ashworth Scale.

Ability to use
a wheelchair independently.

Strong desire to work hard
in order to get back on the feet.



UP TO **100** KG
WEIGHT OF THE PATIENT

29 KG WEIGHT
OF THE EXOSKELETON



UP TO **8** HOURS AFTER FULL
CHARGING WITHOUT BREAK



160-190 CM
HEIGHT OF THE PATIENT

Pelvis **WIDTH**
Pelvis **DEPTH**

↑
↓
EXOATLET
CAN BE ADJUSTED
TO THE PILOT'S
MEASUREMENTS

Thigh **LENGTH**
Thigh **CIRCUMFERENCE**

Lower leg **CIRCUMFERENCE**
Lower leg **LENGTH**
Foot **SIZE**



EXOATLET

KEY FEATURES

Twelve-channel electrical myostimulation of the back muscles to activate locomotor neurons, muscle stimulation timed with the appropriate phases of walking.

Control methods:

- smart crutch for patients;
- tablet for medical staff or assistants;
- operated by a companion or doctor.

Expanded control system features:

- initiation of movement from the patient according to current sensors on the drives;
- parametric task of walking patterns.

Cloud service for storage/planning and training sessions management.

Design changes:

- all the slots that may lead to finger injuries are closed;
- new ergonomic design of pelvis width adjustment for more convenient use;
- added adjustment in the standing position;
- added leg adduction/abduction adjustment;
- range of shin adjustment is increased;
- added back height adjustment.

Protection unit from spasticity.

ABILITY OF USER MOBILITY:
SIT, STAND, WALK AND TURN

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