MADONNA ICARE BY SportsArt

THE GREEN FITNESS COMPANY

THERE FOR EVERY STEP OF THE WALKING JOURNEY

ICARE: INTELLIGENTLY-CONTROLLED ASSISTED REHABILITATION ELLIPTICAL

The ICARE was developed at the Madonna Rehabilitation Hospitals in Lincoln, Nebraska as an affordable option for clinics and hospitals to incorporate partial body weight support gait training as an effective tool for patients, while also facilitating a safe means of implementation for the clinician.

A SIMPLE STEP WITH BIG BENEFITS

- Complete more therapy within allotted session time with the quick and simple set up.
- Set up and operate sessions with only a single clinician.
- Relieve physical stress on clinicians while offering partial body weight support training with the elliptical motor assistance and unweighting system.
- Provide high-level, appropriately challenging repetitions to promote functional recovery and cardiovascular fitness.
- Implement high-intensity intervals and provide rehabilitation options across a large continuum of care with the intelligently controlled motor.

EFFICIENT

The simple setup allows a single therapist to safely[1] and efficiently help transfer patients into an active rehabilitation session in less than 10 minutes, increasing the amount of available rehabilitation time per visit.

EFFECTIVE

The biomechanical gait pattern of the ICARE's elliptical is the industry's closest to a human stride[2]. When combined with motor assistance, patients are able to achieve a high number of repetitions to promote neuroplasticity, functional recovery, and cardiovascular fitness.

> *After the first time that he used this equipment, in the afternoon, they had him walking with his walker and his splints, and it was like day and night. He could stride and how he held himself, the weight on his feet instead of his shoulders. And the distance he was able to go to. It was just totally different.*
>
> Mother of Jared Rogers | Cauda Equina Patient

STABILITY & BALANCE

As a unique rehabilitation modality, ICARE has the ability to train a patient's stability, balance, and core musculature[3]. The contralateral movement of the pedals and arms, coupled with the right amount of body weight support, allows users to experience rotational movement, exercise under full or partial body weight, and hone their balance as they progress through an elliptical workout.

BUILDING CONFIDENCE

The unweighting system and secure harness allows users to feel comfortable and provides the security needed for exercisers to push themselves without the fear of falling—a fear that many rehab patients deal with on a regular basis. The ICARE allows patients to focus on their progress which builds confidence in themselves and their ability to continually improve their walking[4] and workout capabilities while on the machine and outside of the rehabilitation environment.

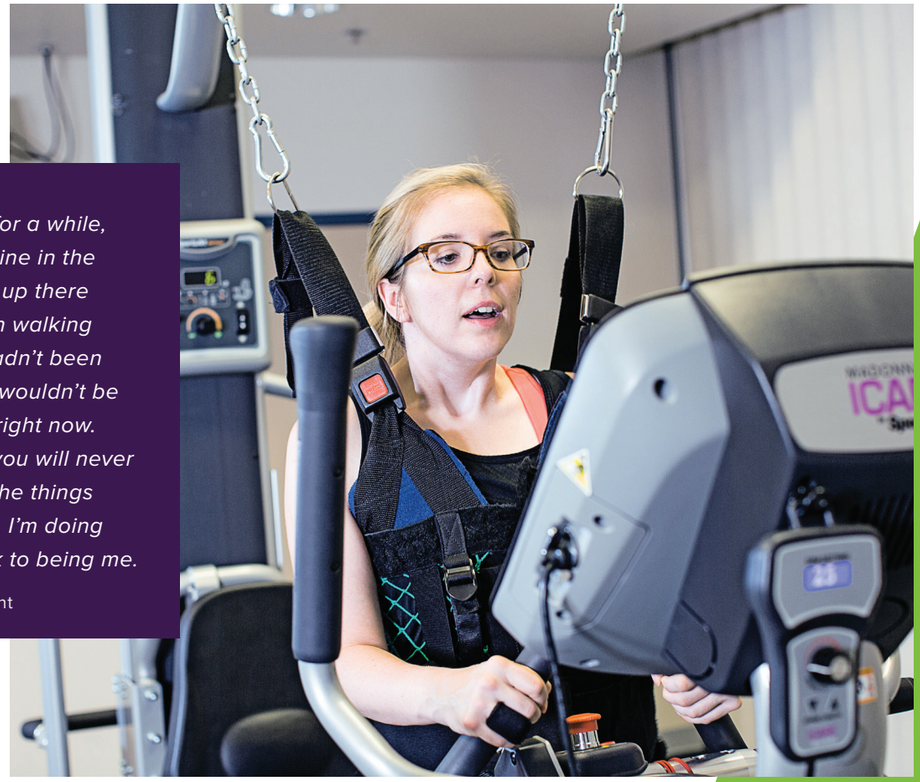
> *I went from a wheelchair all the time, to a walker, and then a cane, and then most of the time at home, nothing. It makes you confident, you just feel more confident.*
>
> Karen Steinbach | Multiple Sclerosis Patient

ICARE IN ACTION

"We have had the ICARE at Brooks Rehabilitation for [many years] now. It is one of our most highly utilized pieces of equipment. We use the ICARE to treat patients with any gait or balance impairments regardless of diagnosis; Orthopedic, Neurologic, Geriatric, Bariatric, and Pediatric. The patients and staff love using the ICARE due to the versatility it provides as well as the ease of set up. We have patients who come in just to use the ICARE in our independent program to maintain their health and quality of life. Staff and patients like the fact that regardless of the level of function of the patient, the ICARE provides the means to deliver a cardiovascular workout that no other machine can deliver. Overall, the ICARE is a very affordable piece of rehabilitation technology that allows any clinician to deliver a highly intense intervention that can be geared toward any patient population."

BROOKS℠ Rehabilitation

Robert J. McIver, PT, DPT, NCS
Director of Clinical Technology and Wellness
Brooks Neuro-Recovery Center Jacksonville, FL



> *I've been using ICARE for a while, that's my favorite machine in the neuro center. When I'm up there it makes me feel like I'm walking around the track...If I hadn't been getting on the ICARE, I wouldn't be doing what I am doing right now. At one point you think you will never be able to do some of the things you used to do, so now, I'm doing things and getting back to being me.*
>
> Shauna Hicks | Stroke Patient

ICARE WITH UNWEIGHTING SYSTEM AND PLATFORM

ICARE (MA) WITH UNWEIGHTING SYSTEM (MU) AND PLATFORM (MP)

ICARE WITH UNWEIGHTING SYSTEM

ICARE (MA) + UNWEIGHTING SYSTEM (MU)

ICARE ASSISTED ELLIPTICAL MACHINE

ICARE (MA)

PRODUCT SPECIFICATIONS

Resistance
40 Levels

Elliptical Motor Assistance
15-65 RPM

Stride Length
18–29 in / 45.0–73.7 cm

Power Requirement
120V / 60 Hz

Unit Weight
MA: 398 lbs / 181 kg
MU: 286 lbs / 130 kg
MP: 343 lbs / 156 kg

Dimensions (LxWxH)
MA: 86.6 x 41.7 x 70.8 in
20 x 106 x 180 cm
MU: 64.2 x 26.4 x 111.4 in
163 x 67 x 283 cm
MP: 145 x 89.3 x 21.4 in
368.2 x 226.8 x 54.2 cm
MA+MU+MP:
145 x 89.3 x 111.4 in
368.2 x 226.8 x 283 cm

Max User Weight
MA: 450 lbs / 205 kg
MU: 400 lbs / 182 kg

Additional Note
Spatial requirements for operating the machine will depend upon specific facility needs. SportsArt recommends a 30-inch by 48-inch space on at least one side of the machine to adhere to ADA guidelines[5].

REFERENCES

[1] *Burnfield, Judith M., et al. "Impact of Elliptical Trainer Ergonomic Modifications on Perceptions of Safety, Comfort, Workout, and Usability for People With Physical Disabilities and Chronic Conditions." Physical Therapy, vol. 91, no. 11, 2011, pp. 1604–1617., doi:10.2522/ptj.20100332.*

[2] *Burnfield JM, Shu Y, Buster TW, Taylor AP (2010). "Similarity of Joint Kinematics and Muscle Demands Between Elliptical Training and Walking: Implications For Practice." Physical Therapy, 90(2):289-305. DOI:10:2522/ptj.20090033. PMID: 20022994*

[3] *Burnfield, Judith M, et al. "Comparative Analysis of Speed's Impact on Muscle Demands during Partial Body Weight Support Motor-Assisted Elliptical Training." Gait & Posture, vol. 49, 26 July 2013, p. 66., doi:10.1016/j.gaitpost.2016.07.128.*

[4] *Burnfield, Judith M., et al. "Walking and Fitness Improvements in a Child With Diplegic Cerebral Palsy Following Motor-Assisted Elliptical Intervention." Pediatric Physical Therapy, vol. 30, no. 4, 3 Oct. 2018, doi:10.1097/pep.0000000000000541.*

[5] *United States Access Board, www.access-board.gov/guidelines-and-standards/recreation-facilities/guides/sports-facilities/exercise-equipment-and-machines.*

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