



The Exersides® Refrains® System

Designed for:

Validated safety and efficacy¹

- Improve patient agitation scores and outcomes
- Improve the control of sedation and mobility
- Allow for patient active range of motion without decreasing safety
- Connect to the patient at the wrist and shoulder for minimal skin contact
- Does not interfere with patient access and equipment
- Reduce the risk of self-extubation
- Increase patient, family, and staff care satisfaction

Reducing staff workflow requirements

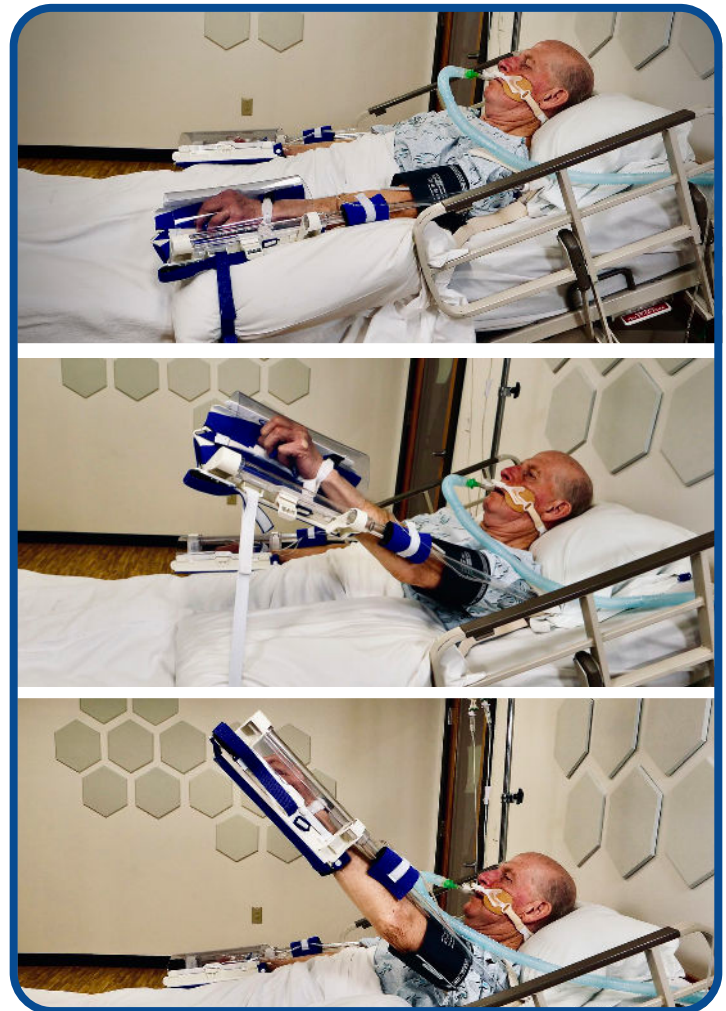
- Easy to adjust for improved control
- Reduces documentation workload
- Does not require additional staff to operate
- Improves line management
- Provides quality measurement of care
- Compatible with hospital bed and equipment

Versatility and adjustability

- Multiple movement level options included: Traditional Restraint, Exercise Strap, and No-Strap
- Approved for both adults and pediatrics

Physician guideline compliance

- Supports “Least Restraint Necessary” CMS mandate
- Aligned with ABCDEF Bundle and ERAS Initiatives



The Exersides® Refrains® System is focused on improving outcomes and workflow.



PATIENTS

- Less agitation
- Less sedation
- More mobility options
- No wrist compression
- Minimal skin contact
- Additional safety



ICU STAFF

- Less restraint documentation
- IVs and arterial lines visible and contained
- Easily check glucose, pulse oximetry, capillary refill
- Easily change level of restraint
- More control over patient progress and safety



FAMILIES

- Better interaction
- Loved one not tied to bed
- Hold hands
- Designed to reduce Post-Intensive Care Syndrome (PICS) and PICS-Family
- Involvement with patient's in-bed mobility



ADMINISTRATION

- Complies with CMS mandate of “Least Restraint Necessary”
- Less sedation helps reduce complications and re-admissions
- Better satisfaction scores
- Reduces staff burnout
- Covid-relevant



The Exersides® Refrain® System

Designed by ICU Staff for ICU Staff
to make patient and staff interaction easier
with improved care results.



CMS 42 CFR 482.13(e)(1)(i)(C): "A restraint does not include devices. . . . to permit the patient to participate in activities without the risk of physical harm. . ."

Challenges

Sedation and limited mobility can cause physical, cognitive, and psychiatric disabilities care resulting in^{2,3}

- Post-Traumatic Stress Disorder (PTSD)
- Post-Intensive Care Syndrome (PICS)
- Anxiety
- Depression
- Delirium

Hospitals struggle with keeping in compliance

Centers for Medicare and Medicaid has mandated a "Least Restraint Necessary", but hospital compliance is difficult when traditional restraints are the main option.

Patient care costs continue to burden healthcare systems

Both ICU costs and volumes have increased. Patients that experience disabilities may require re-hospitalization or other additional care that increases costs.¹⁻⁴

~2M Americans per year

May experience physical, cognitive, and psychiatric disabilities post-ICU Care^{2,5}

~ \$102k - \$157k

Additional hospital costs per patient may occur due to hospital complications¹

- \$56K-\$110K per complicated extubation
- \$43K per pressure ulcer
- 2X risk of nosocomial infection
- \$3.1K-\$4.1K increase in patient hospital stay

> \$43k per person

Is the mean post-hospitalization costs of COVID-19 survivors,⁴

1) Lin B, Kamdar B, et al. Pilot Safety and Feasibility Study of a Novel Restraint Device in Critically Ill Patients with Acute Respiratory Failure. *Am J Respir Crit Care Med* 2020;201:A3598.

2) Kosinski S, Mohammad RA, Pitcher M, et al. Patient Education Series: What is Post Intensive Care Syndrome. *Am J Respir Crit Care Med*. 2020; 201:15-16

3) Needham DM, Davidson J, Cohen H, et al. Improving long-term outcomes after discharge from intensive care unit: report from a stakeholders' conference. *Crit Care Med*. 2012 Feb;40(2):502-9

4) Gajic O, Ahmad SR, Wilson ME, et al. Outcomes of critical illness: What is Meaningful? *Curr Opin Crit Care*. 2018, 24(5): 394-400. doi:10.1097/MCC.0000000000000530

5) Wilbur J, Rockafellow J, Shian B. Post-ICU Care in the Outpatient Setting. *Am Fam Physician*. 2021 May 15;103(10):590-596. PMID: 3398300

Indications for Use: Patients assessed to be at risk of entanglement in vital interventions such as vascular access lines or breathing equipment.

Contraindications: DO NOT USE if patient is prone, has an upper limb injury, or an IV or wound site which could be compromised by the device, or if body is compressed against device e.g. obesity, deformity.