# **HEALTH CHALLENGES IN THE US**

As the population ages and becomes more obese, physical therapists are increasingly at risk for work-related injuries.



- Lifting or moving patients is the main source of injuries for professionals, especially bariatric patients. <sup>[Glover, 2002]</sup>
- Currently, there is a nationwide shortage of physical therapists. Forecasts suggest, that by 2025 an additional 27,000 physical therapists will be needed to meet the growing demand. [APTQI, 2019]





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### RESIST MUSCLE ATROPHY



MINIMIZE THROMBOSIS



### PREVENT BED SORES



## **INTUITIVE AND EASY TO USE**

Robert is an innovative, cutting-edge robot designed to assist therapists in providing physical rehabilitation for their patients. It memorizes the therapist's exercise motion and continuously repeats that motion with the patient. This allows the therapist to provide hands-free therapy with a much larger number of repetitions possible.

MOTION 1 SETUP		моти	MOTION 1 PREREQUISITES			
ACTIVE GUIDED		PRIMARY JOINT	POSITION	Sector Sector	IDDE - RESISTANCE: 5	
ACTIVE GUIDED CONFIGURE SETS		HP KNEE ANKLE	SUPINE LATERAL SEATED PROME			
ACTIVE GUIDED	ACTIVE SETS GUIDED SETS	SOE	MOVEMENT	REMAINING REPETITIONS	FORCE	
ACTIVE GUIDED	- 50 + - 50 +	LEFT RIGHT	FLENON		$\langle \ \rangle$	
	RESISTANCE	ECCENTRIC CONCENTRIC	ADDUCTION ADDUCTION	1 30		
	- 5 +				3 KG	

- Provides Guided and Active Resistance modes
- Can be used in Supine, Prone, Lateral, and Seated position
- Moves in all three directions for specific exercise set up
- Screen allows patient and therapist to monitor effort
- Collects patient data for review of daily progress
- Safety features include push button switch for patient use
- Easy to transport for acute care, in-patient rehab, or out-patient therapy



"The patients really want to try the robot. It has increased their focus on rehabilitation. " - R. Sørensen, Lead Nurse

"The concept can contribute to an accelerated patient recovery where the patient gains previous functional level sooner. "

-M. Blach, Physiotherapist

### **Patient Benefit**

The Robert Physical Therapy Robot helps patients recover from injuries or surgeries quickly and effectively. It provides early, intensive mobilization, which allows patients to start exercising while still bed-ridden, accelerating the recovery process. The robot also allows for self- training at the patient's own pace, with minimal supervision, and provides immediate feedback on progress. This progress can be easily monitored with daily results displayed.

### **Therapist Benefit**

The Robert Physical Therapy Robot is an excellent tool for therapists. The robot can help remove the repetitive work that therapists have to do, minimizing physical strain and freeing up their time to focus on other tasks or patients. Additionally, the robot can provide passive or active resistance training for specific muscles. Its data will help therapists monitor their patients' progress and make necessary adjustments to their treatment plans.

### **Management Benefit**

The Robert Physical Therapy Robot will reduce costs by improving staff effectiveness. Higher efficiency per therapist means treating more patients in less time without putting undue physical wear on your staff. Robert will result in a more satisfied and productive workforce and will be appreciated by patients.

### IMPROVE WORK CONDITIONS



#### PATIENT SELF-TRAINING



#### HANDLES WEIGHT UP TO 350 LBS





