

Progressive Resistance and Balance Training for Falls Prevention in Long-Term Residential Aged Care Facilities

A Cluster Randomized Trial of The Sunbeam Program*

This trial was designed to determine if combined high level balance and moderate intensity progressive resistance training is effective in reducing the rate of falls in residents of aged care facilities.

PARTICIPANTS

221 participants from 16 residential aged care facilities were included in the trial. The average participant age was 86. Treatment was randomized with 113 participants receiving progressive resistance and balance training (**exercise group**), and 108 receiving usual care (**usual care group**).

THE SUNBEAM PROGRAM

The exercise group participated in progressive resistance training using **HUR Intelligent Technology** plus balance exercises 2 times/week for 1 hour for a total of 25 weeks (50 sessions). Following the initial intervention, participants completed a 6-month maintenance program 2 times/week for 30 minutes.

Participants performed 2-3 sets of 10-15 repetitions on a circuit of **5 HUR machines**:

- Adduction / Abduction ST5520
- Leg Press Incline ST5545
- Dip / Shrug STE3125
- Leg Extension / Leg Curl STE5530
- Abdomen / Back Extension STE5310

The balance exercises were a combination of complex static and dynamic standing exercises.

OUTCOMES

- A **55% reduction in falls rate** for the exercise group.
- The incidence ratio of falls per person per year for the exercise group was **1.3 falls/year vs 2.9/year** for the usual care group.
- There were fewer fallers in the exercise group (46%) vs the usual care group (69%). Participants in the usual care group were more likely to have multiple falls.
- The number of falls involving an injury demonstrated a significant reduction in the exercise group vs the usual care group.
- The exercise group scored higher on the SPPB (Short Physical Performance Battery) than the usual care group at 12-months.

DOWNLOAD COMPLETE STUDY: hurusa.com/progressive-resistance-fall-prevention

Original published study: Hewitt J, Goodall S, Clemson L, Henwood T, Refshauge K. (2018) Progressive Resistance and Balance Training for Falls Prevention in Long-Term Residential Aged Care: A Cluster Randomized Trial of the Sunbeam Program. J Am Med Dir Assoc.

*Sunbeam (Strength and Balance Exercises in Aged Care)

CLINICAL TRIAL Summary Report



KEY FINDINGS

Rate of Falls Reduced By

55%

following a regular routine of circuit exercise using HUR Progressive Resistance Machines and Balance Exercises!

The trial's 55% fall rate reduction is greater than any previous intervention in a residential care setting.

Exercise group showed an improvement in physical performance.



3019 Commercial Avenue | Northbrook, IL 60062
Call: (847) 729-2636 | Visit: hurusa.com