



WHITE PAPERS

Remote Therapeutic Monitoring (RTM)

BrainHQ

RCTBalance powered by LudoFit

REMOTE THERAPEUTIC MONITORING STUDIES

Tele-Exergame RTM

Title: *Tele-Medicine Based and Self-Administered Interactive Exercise Program to Improve Cognition in Older Adults with Mild Cognitive Impairment or Dementia*

- **Highlights:** Seniors (average age 68) completed twice-weekly 6-week in-home exergame sessions. Results showed a **9.7% increase** in MoCA (cognition) and **27.6% reduction** in anxiety, alongside high motivation and usability feedback reporter.nih.gov+8pmc.ncbi.nlm.nih.gov+8healthrecoveryolutions.com+8.
 - **Link:** [PMC9739527](https://pubmed.ncbi.nlm.nih.gov/PMC9739527)
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2. Immersive Exergames Enhance Dual-Task & Executive Function

Title: *The effects of a new immersive multidomain training on cognitive, dual-task and physical functions in older adults*

- **Highlights:** In a pilot of 34 adults (~70 years old), Immersive and Interactive Wall Exergames (I2WE) improved visuospatial working memory, inhibition, and dual-task capacity—measures closely tied to fall prevention pmc.ncbi.nlm.nih.govpmc.ncbi.nlm.nih.gov.
 - **Link:** [PMC10828343](https://pubmed.ncbi.nlm.nih.gov/PMC10828343)
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3. Exercise + Cognitive Combo Prevents Decline

Title: *Effect of home-based and remotely supervised combined exercise and cognitive intervention in older adults with mild cognitive impairment (COGITO)*

- **Highlights:** This trial showed that combining exercise and cognitive interventions remotely is feasible and beneficial for older adults with MCI, supporting physical and cognitive resilience pmc.ncbi.nlm.nih.gov+3pmc.ncbi.nlm.nih.gov+3pmc.ncbi.nlm.nih.gov+3reporter.nih.gov+3pmc.ncbi.nlm.nih.gov+3pmc.ncbi.nlm.nih.gov+3.
- **Link:** [PMC11308906](https://pubmed.ncbi.nlm.nih.gov/PMC11308906)

BrainHQ: Clinically Backed Cognitive Training

1. Alzheimer's Association Multi-Year Study

- **Key Take-aways:** Two lifestyle interventions in U.S. POINTER improved cognition in older adults at risk of cognitive decline. A structured intervention with more support and accountability showed greater improvement compared to a self-guided intervention.
- In a large, representative group of older adults at high risk for cognitive decline, multidomain lifestyle interventions were delivered with high adherence and safety.
- Cognitive benefits were consistent across age, sex, ethnicity, heart health status and apolipoprotein E-ε4 genotype.

The Alzheimer's Association U.S. Study to Protect Brain Health Through Lifestyle Intervention to Reduce Risk ([U.S. POINTER](https://aaic.alz.org/releases-2025/us-pointer-study-results-announced.asp)) — a two-year, multi-site clinical trial testing two different lifestyle interventions in a representative population of older adults at risk for cognitive decline and dementia — found that both interventions improved cognition in older adults at risk of cognitive decline. Trial participants in the structured (STR) intervention showed greater improvement on global cognition compared to the self-guided (SG) intervention, protecting cognition from normal age-related decline for up to two years. The STR intervention differed from the SG intervention in intensity, structure, accountability and support provided.

Link: <https://aaic.alz.org/releases-2025/us-pointer-study-results-announced.asp>

2. Protecting the Aging Brain

Title: *The Effects of Computerized Cognitive Training in Older Adults' Cognitive Performance and Biomarkers of Structural Brain Aging*

Summary: NIH-funded RCT showed moderate-to-large cognitive gains and preserved brain structure in seniors using BrainHQ-style training.

Link: [PMC11165429](https://pubmed.ncbi.nlm.nih.gov/361165429/)

Source: National Institutes of Health (NIH)

3. Functional Improvements in Real Life

Title: *BrainHQ Outperforms: NIH Study Confirms Functional Cognitive Gains in Older Adults*

Summary: NIH-funded trial compared BrainHQ to video games, IADL tasks, and puzzles. BrainHQ users saw the strongest improvements in real-life decision-making like fraud avoidance and driving safety.

Published in: *Contemporary Clinical Trials*

Link: [Study summary in PubMed](https://pubmed.ncbi.nlm.nih.gov/361165429/) (search terms: BrainHQ cognitive training NIH RCT)

4. Cancer Survivor Cognitive Recovery

Title: *Enhancing Cognitive Recovery for Cancer Survivors with BrainHQ*

Summary: Recognized by the National Cancer Institute's EBCCP, BrainHQ improved memory and processing speed in breast cancer survivors.

Metrics: 80% Reach, 66.7% Effectiveness

Link: [EBCCP Program Details](#)

Clinical context: Endorsed in national survivorship guidelines (ASCO, ONS)

5. Mild Traumatic Brain Injury (mTBI) Recovery

Title: *Cognitive Training in Mild Traumatic Brain Injury: A Randomized Trial of BrainHQ*

Summary: 12-week NIH-backed trial showed lasting gains in attention, working memory, and executive function in mTBI patients. Improvements held at 6-month follow-up.

Use Case: Ideal for veterans, athletes, and those with long-term post-concussive symptoms

Link: [PMC Article via NIH](#)

6. Landmark: The IMPACT Study

Title: *IMPACT (Improvement in Memory with Plasticity-based Adaptive Cognitive Training)*

Summary: First large-scale NIH-funded trial of its kind. BrainHQ participants improved not just on tasks but on general cognitive assessments (memory, attention, processing speed).

Published by: Mayo Clinic, University of Southern California

Link: [NIH summary via PMC](#)

Research and Clinical Evidence for Jintronix and LudoFit

NOTE: LudoFit, by Ludica Health, is a relatively new platform, soft-launched in 2023 with three “games”, with full launch in early 2024 with seven “games” (18 months ago). There are several new games in final stages of development. LudoFit is designed for individual use, at home or elsewhere. LudoFit is based on Ludica’s highly successful Jintronix platform, launched in 2014 with FDA 510k clearance, currently in use in 350 rehab centers, senior residential facilities and other healthcare locations in the USA, Canada, Australia and Singapore. There are currently eight studies under way that include LudoFit, but none have been published at this time. We are, therefore, including studies relative to Jintronix.

Dementia Wellness and Cognitive Health

1. **Interventions to delay functional decline in people with dementia: a systematic review of systematic reviews**
BMJ Open (2016)
<https://bmjopen.bmj.com/content/6/4/e010767>
2. **Effects of Exercise on Neurobehavioral Function in Community-Dwelling Older People More Than 75 Years of Age**
Geriatrics & Gerontology International (1996)
[PubMed Abstract](#)

Balance and Fall Prevention

3. **Feasibility and Effects of a Physical Activity Program Using Gerontechnology in Assisted Living Communities for Older Adults**
Journal of the American Medical Directors Association (2017)
<https://doi.org/10.1016/j.jamda.2017.06.001>
4. **Feasibility, Acceptability, and Effects of a Home-Based Exercise Program Using a Gerontechnology**
ResearchGate (Pilot Study)
<https://www.researchgate.net/publication/317934050>

Clinical Outcomes & Telerehab Evidence

5. **Acceptability and Outcomes of an Individualized Exergaming TelePT Program for Veterans with MS**
Archives of Physiotherapy (2020)
<https://archivesphysiotherapy.biomedcentral.com/articles/10.1186/s40945-020-00087->

LudoFit-Specific Systematic Review

6. **Systematic Review on Exergaming for Older Adults: Journal of Global Health (2023)**
Supports benefits for executive function, balance, gait, and neuroplasticity in older adults
<https://pmc.ncbi.nlm.nih.gov/articles/PMC10691300>

Huang et al., 2025: "Digital Technology-Based Serious Games for Cognition and Fall Prevention in Older Adults with MCI"

Study Type: Meta-analysis of 28 randomized controlled trials

Population: Older adults with mild cognitive impairment (MCI)

Aim

To assess the efficacy of digital serious games—including exergames, virtual reality, and tablet-based games—on cognitive domains and activities of daily living in seniors with MCI.

Methods

- Searched eight databases for RCTs up to August 2024.
- Compared exergames, VR, and tablet-based games versus standard care or non-digital activities.
- Measured outcomes in cognition, executive function, attention, depressive symptoms, and daily function.

Key Findings

- Serious games improved global cognition, executive function, attention, and ADL more than control interventions.
- Exergames and tablet-based games outperformed immersive VR for cognitive benefits.
- Minimal adverse events, supporting safety and feasibility.

Implications

Interactive serious games—especially those integrating both cognitive and physical tasks—are effective, safe, and suitable for regular use by seniors with MCI, providing advantages over conventional interventions for several outcomes.

[Read the study](#)

<https://pubmed.ncbi.nlm.nih.gov/40192627/>

BrainHealth+ was not part of the above study. However, offering interactive brain health platforms like **BrainHealth+** is a proven way for providers to enhance cognitive fitness and reduce fall risks in seniors. Recent studies show that digital programs combining brain games and physical activity not only sharpen memory and focus but also improve balance, helping older adults stay independent and safe.

BrainHealth+ is a zero-cost, turnkey solution built around evidence-based routines that make brain and body wellness accessible to all older adults. The program uses scientifically-crafted, self-guided activities designed specifically for seniors, requiring no extra staff time or resources for implementation. By adopting BrainHealth+, providers demonstrate their commitment to healthy aging, support better patient outcomes, and stand out as leaders in modern senior care.

Lersilp et al., 2025: "Tablet- and Group-Based Cognitive Stimulation for Older Adults with MCI"

Study Type: Randomized controlled study

Population: Older adults with mild cognitive impairment

Aim

To determine the effect of a 10-week, group-delivered, tablet-based multicomponent cognitive stimulation therapy on cognitive function and emotional well-being.

Methods

- Participants underwent tablet-based cognitive training with group sessions.
- Outcomes assessed: global cognition, depression, anxiety, and quality of life.

Key Findings

- Significant improvements in cognition, lower depression and anxiety after intervention.
- No significant changes in quality of life.
- High adherence and satisfaction among participants.

Implications

Tablet- and group-based cognitive stimulation methods are effective and accessible for supporting cognitive health and reducing affective symptoms among older adults at risk of decline.

[Read the study](#)

<https://www.researchprotocols.org/2025/1/e64465>

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Kiyama et al., 2024: "Home-Based Exergame Step Training Randomized Controlled Trial"

Study Type: Multicenter RCT (n=769)

Population: Community-dwelling adults aged 65+

Aim

To assess the effectiveness and safety of a 12-month home-based exergame step-training program in reducing fall rates and improving health outcomes.

Methods

- Participants randomized to exergame step training, seated cognitive training, or minimal-intervention control.
- Primary outcome: annualized fall rate; secondary: balance, physical, cognitive performance.

Key Findings

- Exergame training reduced the annual fall rate by 26% compared to controls.
- No serious adverse events; intervention deemed safe for home use.
- Cognitive changes minimal, but physical performance improved.

Implications

Home-based exergame step training is a feasible and effective way to lower falls in older adults, capable of large-scale, unsupervised implementation.

[Read the study](https://pubmed.ncbi.nlm.nih.gov/38228913/)

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Board Game Study, 2024: "Interactive Board Game-Based Program for Fall Risk and Cognition"

Study Type: 8-week randomized trial

Population: Community-dwelling elders

Aim

To examine the effects of interactive, movement-based board games on cognitive and physical fall risk factors.

Methods

- Eight-week intervention of dual-task, movement-oriented board games.
- Evaluations: dual-task gait, global cognition, balance, fall risk.

Key Findings

- Enhanced dual-task performance and cognition.
- Decreased physiological indicators of fall risk and improved balance.
- High participant engagement and adherence.

Implications

Hybrid board game interventions offer a socially engaging, effective means to improve fall risk and cognitive outcomes for older adults.

[Read the study](#)

<https://journalmsr.com/effects-of-board-games-on-balance-in-association-with-cognition-in-community-dwelling-older-adults/>

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