



PUBLICATION SUMMARY

Effects of an Oral Nutritional Supplementation Plus Physical Exercise Intervention on the Physical Function, Nutritional Status, and Quality of Life in Frail Institutionalized Older Adults: The ACTIVNES Study

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Objective

To assess the effects of a high protein high calorie ONS with prebiotic fiber, vitamin D, and calcium (Resource® Senior Activ), plus a standardized physical intervention, in the functional status, strength, nutritional status, and quality of life of frail institutionalized older adults.

Materials and Methods

Population

- 4 nursing homes in Spain : 91 elderly residents
- ≥ 70 years
- Able to walk 50m
- Sarcopenic (or at risk: ≥ 3 Fried failty test)

Intervention

- Nutrition: 2x 200ml Resource® Senior Activ
- Physical exercise: 5x week (balance, flexibility, strength)

Measurements

Functional Status	Quality of Life	Nutritional Status
<ul style="list-style-type: none">• Short Physical Performance Battery (SPPB)• Late-Life Function and Disability Instrument (SF-LLFDI)• Handgrip strength	<ul style="list-style-type: none">• EuroQoL-5 Dimensions visual analogic scale	<ul style="list-style-type: none">• Weight• BMI• Mini Nutritional Assessment (MNA)• Blood tests• BIA

Results

- 76% completed the 12 week intervention (n=69)
- Adherence to ONS: 62.6% of participants consumed >80%
- Adherence to exercise: 93.4% of participants exercised >80%

Function Status

- Mean values significant after 6 weeks but not 12 weeks

Quality of Life

- EQ-5D VAS – 6 weeks: 60–66 (6; 3–10)†
- EQ-5D VAS – 12 weeks: 59–64 (5; 0–10)*

Nutrition Status

- Weight 59.9–61.6 (1.7; 0.9–2.5) ‡
- BMI: 26.5–27.3 (0.8; 0.4–1.2)‡
- MNA: 10.3–11.1 (0.8; 0.1–1.5)*
- Vit D: 17.4–25.3 (7.9; 5.0–10.8)‡

* P < .05 ; † P < .01 ; ‡ P < .001.

Participants had greater probability of improving functional status when they presented with lower baseline scores, lower baseline BMI, lower vitamin D levels, and more baseline frailty criteria.

Conclusion

- A specific ONS supplementation (high protein, high calorie, extra vit D and calcium) plus physical exercise in frail institutionalized older adults, improved functional status at 6 weeks, nutritional status at weeks 6 and 12, and quality of life at weeks 6 and 12.
- Elderly residents with a lower BMI, lower previous physical function, higher number of frailty criteria, and lower vitamin D levels had an independent association with functional improvement.

Link to study

[https://www.jamda.com/article/S1525-8610\(15\)00150-4/fulltext](https://www.jamda.com/article/S1525-8610(15)00150-4/fulltext)



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