

# **BACHELOR THESIS ABSTRACT**

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**Title:** Effects of vestibular rehabilitation in elderly people with balance disorders

## **Abstract:**

The bachelor's thesis deals with the influence of the vestibular rehabilitation on the postural stability of seniors who have balance disorders. Vestibular rehabilitation has an unmissable place in this issue, as it is able to ensure the preservation of the quality of life of the elderly without the need for subsequent hospitalization. This statement is based on the fact that vestibular rehabilitation serves as a prevention against falls and increases the overall fitness of the elderly.

The practical part of the bachelor's thesis deals with case studies of three patients and the application of vestibular training to these patients. The main components of this training are elements of visual motor skills, eye-hand coordination, movement planning and balance training.

The main methods of data collection are the PhysioSensing Stability Platform, the 10 Meter Walk Test and the Timed Up and Go Test.

The aim of the bachelor's thesis focuses on several areas. First goal is to create a design for the examination. Furthermore, the aim of the thesis is to create an exercise unit which includes elements of vestibular training and to apply this exercise unit for selected senior women with balance disorders. The last part of the goal is to compare the input and output measured values for each patient.

The measured data show that all patients improved their postural stability of standing and walking in certain areas.

**Keywords:** vestibular rehabilitation, balance disorders, dizziness, elderly, falls