

Date : 20/11/2024

Title : The Effect of Robot-Assisted Walking Training on Motor Functions, Respiratory Parameters, and Functional Capacity in Cerebral Palsy

We invite you to participate in the project titled "The Effect of Robot-Assisted Gait Training on Motor Functions, Respiratory Parameters, and Functional Capacity in Cerebral Palsy," which will be conducted by Physiotherapist Efe ALCAN at the Department of Physiotherapy and Rehabilitation, Faculty of Health Sciences, Istanbul University-Cerrahpaşa.

This master's thesis will evaluate motor functions, respiratory parameters, and functional capacity in daily life in children with ambulatory-type cerebral palsy using exercises involving neurodevelopmental treatment methods and a walking robot. The aim of the study is to evaluate the effectiveness of the walking robot, which will be used in addition to the neurodevelopmental treatment methods, on these parameters. The study's scientific contributions will be measured using a digital spirometer to measure the FEV1, FVC, and FEV1/FVC values of children walking on a walking robot, providing quantitative data on the lung values of individuals with cerebral palsy. This is the unique value of this study. The procedures to be performed are neurodevelopmental exercises, and the plan includes tandem walking, balance exercises, weight-bearing exercises on hands and knees in the cat-camel position, and proprioception exercises. In addition to the neurodevelopmental exercises, the other group will walk on a walking robot. These exercises are risk-free and will be performed under the supervision of Physiotherapist Efe Alcan. You will be a volunteer in this study. A scientific conclusion will be reached based on the information or data obtained from you and the other participants. Before deciding whether to participate in this study, you should understand why, how, and with what methods the study will be conducted, what is expected of you, and the benefits, risks, and discomforts of participation.

After all subjects complete the 12-week intervention program, all baseline assessments will be repeated. This will assess the benefits of the treatment. The estimated number of cerebral palsy patients expected to participate in the study is 24.

If you agree to participate voluntarily, you will be enrolled in an assessment and rehabilitation program prepared by the Physiotherapy and Rehabilitation Department of Istanbul University-Cerrahpaşa. First, demographic information such as age, gender, weight, height, educational background, and background information will be collected. The assessments will be repeated at the beginning and end of the study. You will be asked to participate in the assessment twice in total and in a 40-minute rehabilitation program, once a week for 12 weeks. Therefore, it is important to read and understand this form. Please request clarification if there is anything you do not understand or that is unclear to you. Participation in the study is entirely voluntary.

You have the right not to participate in the study or to withdraw after participation. Please obtain information about the project on the following topics:

- Nature of the project,
- Purpose,
- Contributions to science,

- Procedure to be performed (blood collection, survey, etc.),
- How it will be implemented,
- Method(s) to be used (intravenous, questionnaire, interview, etc.),
- Duration,
- Approximate number of participants (total number of participating institutions and participants if multicenter).
- Risks, potential adverse effects, and treatability,

You will not be charged any fees for any procedures performed within the scope of this project. This project will not impose any burden on your social security or other health insurance payments. Your results and identity will be kept confidential. However, the results will be provided to you in a report upon your request.