this sense, the ADAPT extension and research project was created, which aims to promote early, motorized, and low-cost mobility, and the participation of children with disabilities who don't walk or who use assistive devices for mobility.
*Objectives:* To evaluate the usability of motorized cars to be propelled by different types of adapted switches by the ADAPT project in children with CP classified as GMFCS IV or V.
*Methods:* Children with CP classified as GMFCS IV or V, enrolled in the ADAPT project and who received the adapted motorized car, participated in this study. They were evaluated before and after using the motorized car, through a screening form and the Assessment of Learning Powered mobility use (ALP – scoring between 1 and 7). The Quebec User Evaluation of Satisfaction with Assistive Technology (QUEST 2.0 – reference value between 0-5; scores higher than 4 indicate satisfaction with the assistive technology), was individually answered by parents or caregivers, by Google Forms, with the support of a researcher to clarify possible doubts.
*Results:* Four children with a diagnosis of CP, with a mean age of 5 years and classified by the GMFCS level IV or V, participated in this study. According to the ALP, all children were at level 1 (learner) at the beginning of the evaluation and after the intervention, they progressed to level 3 (novice). In QUEST 2.0, the total score of the questions obtained an average of 4.17 ($\pm$0.23), which means that families were between quite satisfied and completely satisfied with the adapted motorized car offered by the ADAPT project.
*Conclusion:* The usability of the motorized car adopted by the ADAPT project was proven, since all children improved in the use of the switches and their families were satisfied, resulting in a good evaluation of the service provided by the ADAPT project and the adapted motorized car after using it.
*Implications:* The idea of the ADAPT project to adapt and motorize non-electric cars allows more children to have access to this mobility, regardless of their economic condition, providing benefits to the population in general.
*Keywords:* Cerebral palsy, Mobility, Child

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## OPINIONS OF BRAZILIAN SPORTS PHYSIOTHERAPISTS ON UPPER EXTREMITY PHYSICAL PERFORMANCE TESTS

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*Background:* The literature describes more than ten upper extremity physical performance tests that are characterized by being low-cost, quick, and easy to administer. However, there are discussions about the applicability of the tests in clinical practice due to their inability to reproduce the sports-specific movement and the lack of reference values.
*Objectives:* To evaluate the opinion of Brazilian sports physiotherapists regarding the frequency, timing, and difficulties in using upper extremity physical performance tests in clinical practice, as well as to investigate which of the tests available in the literature are being used more or less frequently.
*Methods:* The study design was cross-sectional. Physiotherapists working in the orthopedic or sports field were invited to fill out an online questionnaire. The frequency question was multiple choice, allowing participants to select one of five options ranging from never to always. The timing question was multiple choice, allowing participants to select all three options: assessment, rehabilitation, and return to sport. The question about difficulties was multiple choice, allowing participants to click on only one of the following options: "yes", "a little", or "no". The first two options directed the participant to an optional open question to report the difficulties. As for the question regarding which test, they use, the names and figures of each of the ten tests were presented, and the participants answered whether or not they used them. The present study included the participation of physiotherapists who treated at least 1% of athletes per month, but for this abstract, the responses of physiotherapists for whom athlete treatment represented 50% or more of the services rendered per month were analyzed descriptively.
*Results:* The answers of one hundred sports physiotherapists were analyzed, the majority of whom were male (67%), worked in the state of São Paulo (32%), and had an average age of 33 years with 8 years of experience in the physiotherapy area. The physiotherapists answered that they frequently use the tests (37%), mainly for assessment purposes (85%), and the majority reported not having difficulty applying the tests (57%). The physiotherapists who reported having difficulty pointed out the lack of reference values, adequate space, evaluation time, and knowledge about the tests as a challenge in clinical practice, as well as the inability to reproduce the sports-specific movement and the lack of adaptation to different body types. The most commonly used test was the "Closed Kinetic Chain Upper Extremity Stability Test" (CKCUEST) (86%), while the least used was the "Upper Body Push and Pull Strength Ratio" (23%).
*Conclusion:* In conclusion, physiotherapists whose treatment of athletes represented 50% or more of the treatments per month, despite reporting some difficulties, frequently use upper extremity physical performance tests, mainly the CKCUEST, to evaluate their athletes.
*Implications:* This abstract showed that physiotherapists who treat athletes are aware of and use upper extremity physical performance tests, but some encounter difficulties in implementing them in clinical practice. Therefore, further research in this area may provide reference values for the Brazilian population.
*Keywords:* Surveys and Questionnaires, Athletes, Physical Functional Performance

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## PHYSIOLOGICAL EFFECTS RELATED TO THE USE OF HIGH-FLOW NASAL CANNULA IN PRETERM INFANTS: INTEGRATIVE REVIEW

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*Background:* The high-flow nasal cannula (HFNC) is a non-invasive ventilatory support that provides ventilation and oxygenation in an

air flow greater than that generated spontaneously, also delivering humidified and heated air at temperatures close to 36.5°C with a programmed fraction of inspired oxygen. At first, HFNC emerged as an alternative to replacing CPAP (continuous positive airway pressure) in preterm infants. For a better understanding and safe clinical application, it is extremely important to search for its real physiological effects for use in the Neonatal Intensive Care Unit.
*Objectives:* To review in the current literature what are the physiological effects of usinga high-flow nasal cannula when applied to preterm infants.
*Methods:* This is an integrative literature review, in which scientific articles from journals indexed in the Bireme and Pubmed library and in the Scielo and PEDro databases, published between 2012 and 2022 were used.; published in Portuguese, English and Spanish, whose objective was to investigate the effects of HFNC in newborns with less than 37 gestational weeks.
*Results:* Six articles were selected that fit the inclusion criteria and that update knowledge about the physiological effects. Beneficial effects such as improved oxygenation and respiratory rate, lower incidence of injury to the nasal mucosa, effective alveolar ventilation, increased pulmonary pressure, washing of the nasopharyngeal dead space and possible harmful effects such as pneumothorax, pneumo-orbitis, pneumocephalus, subcutaneous emphysema, apnea, and bradycardia.
*Conclusion:* It is concluded that the use of a high-flow nasal cannula in preterm infants has beneficial effects and is a safe resource if used through individualized prescription. Most of the research compares it with CPAP, and when performing this comparison, it was observed in most studies that it reduces the risk of nasal trauma, facilitates ventilatory mechanics and provides greater comfort. However, it has been analyzed that flow rates greater than 8 liters per minute can have negative effects. It is essential that further research be carried out to understand the physiological effects of this therapy, providing an increasingly safer practice.
*Implications:* When planning ventilatory support for premature newborns, one of the main concerns that the physiotherapist must pay attention to is the risks that may arise. HFNC has been gaining notoriety in hospitals, especially after its use in the Covid-19 pandemic, and researching it in depth, investigating its implications in the body, whether or not it favors adequate development of the newborn is necessary. In short, when researching the subject, professionals working in the Neonatal Intensive Care Unit will be able to have a clear understanding of the repercussions on the physiological system with the use of this therapy.
*Keywords:* Oxigentherapy, Premaure, Respiratory

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## COMPARISON OF THE EFFECTS OF TWO GROUPS OF SUSPENSION TRAINING ON PAIN IN WOMEN WITH CHRONIC LOW BACK PAIN: A PILOT STUDY

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*Background:* Low back pain is a disabling disease that originates from multifactorial aspects and directly interferes with the daily life of those who suffer from it.
*Objectives:* To compare the effects of two suspension training programs on pain in women with chronic low back pain.
*Methods:* Pilot study in which female participants, aged 18-49 years, with chronic low back pain (CLBP) of unspecific origin were selected. As inclusion criteria, participants should be at least moderately active according to the human activity profile (HAP) and have pain >3 according to the Numeric Pain Rating Scale (NPRS). After the evaluation, the participants were randomized into 3 groups: control group (CG), suspension training group 1 (STG1) and suspension training group 2 (STG2). STG1 performed the training with progression of exercise difficulty, while STG2 performed the program with progression of the number of repetitions every 4 weeks. The training consisted of 24 sessions, twice a week, for 12 weeks. Each session lasted approximately 50 minutes and was divided into 5 minutes of warm-up, 40 minutes of suspension training and 5 minutes of relaxation. Exercises were performed for upper limbs, trunk and lower limbs. The NPRS evaluation was carried out before the start of treatment and after the end of training (12 weeks).
*Results:* So far, 11 women have participated, 4 in STG1, 4 in STG2 and 3 in CG. The mean age was 31±09 years and the location of the pain was predominantly bilateral. No significant difference was found in the NPRS after training: STG1 (4±3.75 vs 4±1.50), STG2 (4±5.50 vs 4±3.50), CG (3±3.67 vs 3± 3.33) (Wilcoxon test, $p>0.05$). The intergroup analysis also showed no significant difference (Kruskall Wallis test, $p>0.05$).
*Conclusion:* So far, suspension training has not shown significant results in improving low back pain and there is no significant difference between the effects of STG1 and STG2.
*Implications:* This study allows us to present suggestions for suspension training exercises that can be prescribed to women with chronic low back pain.
*Keywords:* Low back pain, Pain measurement, Suspension training

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## EFFICACY OF MOBILE-HEALTH INTERVENTIONS ON PAIN AND DISABILITY OF INDIVIDUALS WITH CHRONIC LOW BACK PAIN: A SYSTEMATIC REVIEW WITH META-ANALYSIS

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*Background:* Low back pain is the main cause of disability in the world, causing serious socioeconomic and health systems impact. Individuals with chronic conditions have been widely affected by the pandemic. In this context, mobile health (*m-Health*) has