Objectives: The aim of study is to investigate the prevalence of neck and shoulder pain and the impact on running performance.
Methods: This prospective open survey study was conducted in accordance with the CHERRIES guideline recommendation. The study was conducted across the entire Brazilian territory using the Google Forms platform. Demographic data were collected, along with questions regarding the presence of cervical and shoulder pain. Among those who reported experiencing cervical and shoulder pain, they were also asked whether these pains limited their running performance. Finally, they completed two questionnaires to assess the levels of disability in the shoulder and cervical regions (SPADI and NBQ, respectively).
Results: 392 runners in all Brazilian territory answered this open survey which two-hundred ninety-one (58,16%) was women and one-hundred eighty-four (41,83%) was men. A total of 174 participants reported experiencing cervical and/or shoulder pain. Among them, 82 had cervical pain, corresponding to a prevalence of 20.92% (NBQ score = 20.65). Of these, 4 participants (4.88%) reported that cervical pain limited their running practice (NBQ score = 32.5). Additionally, 92 participants (23.47%) reported shoulder pain (SPADI score = 19.03), and among them, 5 (5.43%) stated that shoulder pain limited their running practice (SPADI score = 36.6). These preliminary findings suggest a moderate prevalence of cervical and shoulder pain among runners, with approximately 9% of affected individuals experiencing running limitations due to pain. Further studies are needed to better understand the relationship between cervical and shoulder pain and its impact on running performance.
Conclusion: These partial results suggest that the prevalence of neck and shoulder pain is 20.92% and 23.47%, respectively. However, only a small percentage of runners with cervical and/or shoulder pain experience limitations in running performance. Further studies are needed to identify the factors associated with the development of cervical and shoulder pain that may restrict running practice.
Implications: Understanding the impact of neck and shoulder pain on running performance can contribute to the development of preventive and rehabilitative strategies tailored to runners. Coaches, physiotherapists, and healthcare professionals should consider incorporating upper limb assessments and interventions into training programs to minimize potential biomechanical compensations and prevent further injuries. Future research should explore the underlying biomechanical and physiological mechanisms linking upper limb dysfunctions to running performance and injury risk. Additionally, longitudinal studies are needed to assess causality and the long-term effects of cervical and shoulder pain on runners' health and performance.
Keywords: Pain, running, prevalence

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ASSOCIATION BETWEEN UPPER LIMB ROTATION TEST AND ISOMETRIC MUSCLE STRENGTH IN SWIMMERS

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Background: Functional tests are widely used in the assessment of sports injuries to analyze aspects such as muscle strength, power, and athlete agility, being routinely applied in clinical practice for the prevention and rehabilitation of these injuries. The Upper Limb Rotation Test (ULRT) are frequently used for the evaluation of the upper limb functional status of athletes. However, the association between ULRT scores and isometric muscle strength of the kinetic chain muscles in swimmers is not completely understood.
Objectives: To evaluate the correlation between the isometric muscle strength of the kinetic chain muscles and the ULRT in swimmers.
Methods: This is a cross-sectional study that includes swimmers of both sexes, aged between 12 and 60 years, with at least 1 year of competitive practice, and a minimum of two training sessions per week. This study was approved by Ethics Research Committee. The ULRT was performed with the swimmers in a modified flexion position (on their elbows), close to a wall. They performed trunk rotation and external shoulder rotation at 90° of abduction and external rotation, touching a tape on the wall as quickly as possible for 15 seconds. The athletes performed three trials, and the mean was considered for the analysis. The peak isometric muscle strength of the shoulder elevators (scaption), shoulder internal and external rotators, lower trapezius (LT), serratus anterior (SA), trunk extensors and flexors, hip abductors and rotators (HIPSIT), hip flexors (HF), and knee extensors (KE) were measured using a handheld isometric dynamometer. The association between ULRT and muscle strength was assessed with Pearson Correlation Coefficient, which was classified as weak (0—0.39), moderate (0.40—0.69), and strong (0.70—1.00). A significance level of $p < 0.05$ was adopted. The data were analyzed with SPSS software version 23.0.
Results: A total of 50 athletes participated in the study, with mean age of 30.46 ± 14.27 and 27 (54%) were male. The ULRT showed a weak positive correlation with internal shoulder rotators ($r = 0.36$; $p = 0.008$) and moderate positive correlation with shoulder elevators ($r = 0.40$; $p = 0.004$), external shoulder rotators ($r = 0.41$; $p = 0.002$), LT ($r = 0.43$; $p = 0.001$), SA ($r = 0.42$; $p = 0.002$), trunk flexors ($r = 0.57$; $p < 0.000$), trunk extensors ($r = 0.43$; $p = 0.001$), HIPSIT ($r = 0.44$; $p = 0.001$), HF ($r = 0.43$; $p < 0.000$) and KE ($r = 0.44$; $p = 0.001$).
Conclusion: The study showed that performance in the ULRT is associated with muscle strength of shoulder elevators (scaption), external shoulder rotators, LT, SA, trunk extensors and flexors, HIPSIT, HF and KE. The results demonstrate that higher muscle strength in these muscles is associated with better performance in the test, highlighting the importance of the kinetic chain.
Implications: These findings can help clinicians to identify which components of the kinetic chain might affect ULRT performance.
Keywords: Physical Performance Test, Functional Test, Kinetic Chain

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DOES ANKLE AND HIP JOINT MOBILITY AND STRENGTH ASYMMETRY CORRELATES WITH THE PERFORMANCE OF HOP TEST IN PHYSICALLY ACTIVE INDIVIDUALS?

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Background: Understanding the interaction between musculoskeletal variables is essential for identifying dysfunction, preventing injuries, and improving athletic performance. Ankle dorsiflexion and hip function are crucial for dynamic activities such as jumping. Although the Hop Test is widely used to assess functional capacity, the interaction between these variables and their impact on performance remains underexplored. In this context, asymmetry between the lower limbs can compromise performance and increase the risk of injuries, making it essential to identify and correct these discrepancies to enhance performance and prevent musculoskeletal deficiencies.
Objectives: To investigate the correlation of ankle and hip joints mobility and strength asymmetry with the performance of Hop Test in physically active individuals. The study aims to understand how these variables are related with functional capacity and physical performance in activities that require jumping and stability in physically active individuals.
Methods: This is a cross-sectional study using data from the Physiotherapy Assessment Tool (PHAST) database. The sample consisted of 200 physically active individuals (124 men, 76 women, 97% with right lower limb dominance), aged 18-56 years (mean = 35.01; SD = 8.71), with an average height of 172.8cm and weight of 72.84kg. Participants underwent the following clinical measurements: passive hip internal rotation (IR) ROM, ankle dorsiflexion ROM, hip extensor and abductors repetition test, and the single Hop Test. Pearson's correlation coefficient and linear regression analysis were performed to examine the associations between asymmetry scores, musculoskeletal variables, and hop test performance, with a significance level set at $p < 0.05$.
Results: Greater asymmetry was observed in ankle dorsiflexion ROM (> 10%) in 42.5% of individuals, in hip extensors repetition test (> 10%) in 51.5% of volunteers, and in hip abduction repetition test (> 10%) in 60% of the sample. Regarding single Hop Test performance, an asymmetry greater than 10% was observed in 27.5% of participants. Although correlations were weak, they were statistically significant between hip extensors function ($r = 0.18$ and $p = 0.009$ on the dominant side [DS]; and $r = 0.19$ and $p = 0.005$ on the non-dominant side [NDS]) and dorsiflexion ROM ($r = 0.19$ and $p = 0.006$ on the DS; and $r = 0.19$ and $p = 0.004$ on the NDS) when compared to Hop Test performance.
Conclusion: The observed correlations and asymmetries suggest that hip extensors function and dorsiflexion ROM have a significant, albeit weak, relationship with single Hop Test performance. Additionally, asymmetries in variables related to the hip abduction repetition test, hip extensors repetition test and ankle dorsiflexion ROM indicate potential areas for future studies focusing on interventions that could be explored to improve symmetry and physical performance, particularly in activities involving jumping and joint stability.
Implications: The results of this study highlight the importance of understanding the contribution of hip variables and the ankle/foot complex to Hop Test performance, as well as to injury prevention and functional capacity improvement. These findings emphasize the need to address dysfunctions and asymmetries by implementing strategies to prevent injuries and optimize physical performance, especially in activities that require jumping and joint stability.
Keywords: Stability, Functional Performance, Injury risk

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PHYSICAL ACTIVITY LEVEL AMONG HEALTHY ADULT WOMEN AND MEN: AGREEMENT BETWEEN SELF-PERCEPTION AND IPAQ-SF

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Background: Sedentary behavior is highly prevalent worldwide and is associated with a wide range of chronic diseases and premature mortality. It can be identified through self-reporting by individuals or specific physical activity questionnaires, such as the International Physical Activity Questionnaire - Short Form (IPAQ-SF). Although it is a validated instrument, your results depend on the accurate reporting of activities performed in the past week, which may be a confounding factor at the time of application.
Objectives: To analyze the agreement between self-reported sedentary behavior and the IPAQ-SF in healthy adult men and women.
Methods: This is a cross-sectional observational study comprising 204 healthy individuals aged between 18 and 59 years. Initially, all participants were asked about their self-perception of physical activity level, classifying themselves as sedentary or physically active. Subsequently, they completed the International Physical Activity Questionnaire - Short Form (IPAQ-SF), in which they reported the intensity, duration, and frequency of physical activities performed in the last week. Based on the IPAQ-SF responses, individuals were categorized into five groups: (1) very active, (2) active, (3) irregularly active A, (4) irregularly active B, and (5) sedentary. Cohen's Kappa coefficient was used to quantify the level of agreement between self-reporting and IPAQ-SF classifications. The analysis was stratified by sex, and the significance level was set at $p < 0.05$.
Results: A total of 204 volunteers participated in the study, of whom 56% were women (35.4 $\pm$ 12.5 years, 67.5 $\pm$ 13.0 kg, and 1.63 $\pm$ 0.06 m) and 44% were men (33.1 $\pm$ 12.0 years, 82.3 $\pm$ 14.8 kg, and 1.77 $\pm$ 0.07 m). Based on self-perception, 31% of men and 43% of women considered themselves sedentary. However, only 7.14% of men and 10.2% of women were classified as sedentary by the IPAQ-SF, indicating low agreement between the methods. Among men who self-identified as sedentary, 21.42% were classified as irregularly active B, 14.28% as irregularly active A, 35.71% as active, and 7.14% as very active according to the IPAQ-SF. Among women, 28.57% were classified as irregularly active B, 16.32% as irregularly active A, 28.57% as active, and 16.32% as very active.
Conclusion: There is low agreement between self-reported sedentary behavior and the classification obtained through the International Physical Activity Questionnaire - Short Form (IPAQ-SF) in healthy adults.
Implications: Many individuals who considered themselves sedentary were classified by the questionnaire as physically active at different levels, indicating a discrepancy between subjective perception and objective criteria for assessing physical activity. These differences may be related to individual interpretations of the concept of sedentary behavior or inaccurate recall of physical activity practices when completing the questionnaire.
Keywords: Behavior sedentary, Exercise, Activities, Physical

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