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Relationship Between Lower Extremity Alignment and Hallux Valgus in Women.

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Abstract

Background: Most previous studies on hallux valgus focused on the possible relationship between this deformity and muscles and/or ligaments in the foot and lower leg. Very little is known about the relationship between hallux valgus and alignment of the proximal joints. The aims of the present study were to determine the extent to which lower extremity alignment characteristics of the hip, knee, ankle, and foot were related to the manifestation of hallux valgus and to identify variables predicting its development in women.

Methods: A group of 25 women with hallux valgus and 24 control women, age 51 to 80 years, were interviewed and screened for the current study. Measurements recorded were hallux valgus angle; inter-metatarsal angle; a set of body physique measures (eg, height); range of motion at the hip, knee, ankle, and foot joints; general hypermobility; lower extremity alignment (eg, tibio-femoral angle); and 9 anatomical anomalies (eg, knee valgus/varum).

Results: Women with hallux valgus manifested notably higher range of motion at their joints, different lower extremity alignment, higher prevalence of general joint hypermobility, and higher prevalence of anatomical anomalies compared with controls. Estimated marginal means for most joint range of motion and lower extremity alignment measurements were notably higher for the hallux valgus group.

Conclusion: Lower extremity alignment and joint range of motion were correlated with hallux valgus. Future studies could possibly identify anatomic risk factors for the development of hallux valgus, nonsurgical methods of prevention and adjunctive surgical methods of treatment.

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Socioeconomic and physical characteristics of degenerative lumbar spinal stenosis individuals.

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Abstract

Study Design: A descriptive study of the association between demographic factors, and physical characteristics, and degenerative lumbar spinal stenosis (DLSS).

Objective: To shed light on the association of socioeconomic parameters and physical characteristics with DLSS.

Summary of Background Data: Lumbar spinal stenosis is a prevalent and disabling condition in the aging population. DLSS is considered to be the most common type and is essentially associated with disc disease, facet joint arthrosis, ligamentum flavum thickening and osteophyte formation. While there is ample information regarding the association between BMI, cardiovascular disorders, smoking habits and disc disease, very little is known about their association with DLSS. Data on the association of body physique (e.g., height and weight) and DLSS are limited.

Methods: Two sample populations were studied. The first included 165 individuals with DLSS (mean age 64 ± 9.9 years) and the second 180 individuals without spinal stenosis related symptoms (mean age 62.5 ± 12.6 years). An evaluation of the cross-sectional area of the dural sac and degenerative listhesis for all participants was performed on CT lumbar spine images, utilizing Philips EBW station (Brilliance 64, Philips Medical System, Cleveland Ohio). All participants were interviewed in order to obtain demographic, physical and health data. Independent T- test, Mann-Whitney and Chi-square tests were used to determine the association between parametric and non-parametric variables and DLSS. Logistic regression analysis was carried out in order to reveal predicting variables for DLSS.

Results: Stenosis females were significantly heavier and shorter compared to their counterparts in the control group. We also noticed that they delivered babies more often than those in the control group. Prevalence of individuals suffering from diabetes mellitus was significantly higher in the stenosis males compared to control group. In the stenosis group, the frequencies of individuals engaged in heavy manual labor (males) and housekeeping (females) were significantly higher compared to their counterparts in the control group.

Conclusions: Heavy manual labor and diabetes mellitus in males and housekeeping (females) play major roles in the genesis of DLSS.

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Development of the lumbar lordotic curvature in children from age 2 to 20 years.

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Abstract

Study Design: Cross-sectional retrospective study.

Objective: The purpose of this study was to provide data for the normal values of the lumbar lordotic curvature and segmental angles throughout childhood and to explore the relative contribution of the vertebral bodies and intervertebral discs to the developing lordosis during childhood.

Summary of Background Data: Although early detection of spinal abnormalities such as hyper lordosis or scoliosis is important for preventative intervention, published data regarding normal lordosis development is sparse. The lumbar lordotic curvature is formed by the wedging of the lumbar vertebral bodies and of the intervertebral discs, but there are no data to indicate how these 2 components changes during childhood development.

Methods: Spinal angle parameters were measured on midsagittal reformatted images from 210 abdominal computed tomographic scans of children aged 2 to 20 years. Four different angles were measured: the lordosis angle, the body wedge angle (B), the total segmental angle (S), and the intervertebral disc angle (D). Measurements B, S, and D were taken for each of the 5 lumbar segments. Measurements B and D were used to calculate ΣB, the sum of the lumbar L1-L5 body angles; and ΣD, the sum of the lumbar L1-L5 intervertebral disc angles. Computed tomographic scans were divided into 6 groups according to patients' ages.

Results: The lordosis angle increased from 30° ± 6° in the 2 to 4 year-old group to 44° ± 9° in the 17 to 20 year-old group. The ΣB slightly decreased (less lordotic wedging) with age, whereas the ΣD increased significantly with age.

Conclusions: Our results indicate that the lordosis angle continues to develop at least until 14 to 16 years of age and that this increase is the result of the increased lordotic wedging of the intervertebral discs.

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Establishing a physical therapist-driven model of safe patient handling and movement programs in a general hospital.

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Source

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Abstract

Objective: Healthcare workers are at great risk for musculoskeletal injuries related to ergonomic risk work factors. Patient handling tasks such as transfers and bed positioning pose the highest risk. This report describes the implementation of a physical therapist-driven model of ergonomic intervention in a general hospital in Israel.

Participants: A group of senior physical therapists undertook the lead role in implementing an ergonomics program on four hospital wards.

Methods: After participating in an extensive ergonomics training program, the therapists were guided through the process of risk analysis and program formation tailored to four pilot wards. Four interdisciplinary ergonomic teams were established. The teams will define their ongoing role in coordinating and implementing ergonomics activities in the future.

Results: Short-term outcomes include the advancement of ergonomics knowledge and awareness among therapy and nursing staffs, and recognition of therapists' role in healthcare ergonomics, as well as the establishment of four interdisciplinary ergonomics teams. The long-term outcome will be the maintenance of team activities over time, including repeated surveys of staff attitudes and practices, which have been positively correlated with reductions in musculoskeletal injury rates.

Conclusion: This model of intensive involvement of therapists within multidisciplinary ergonomics programs may serve as a protocol for further projects in healthcare settings.

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Springer S, Vatine JJ, Lipson R, Wolf A, Laufer Y. Effects of dual-channel functional electrical stimulation on gait performance in patients with hemiparesis. ScientificWorldJournal. Epub 2012 Oct 11.

Kafri R, Deutscher D, Shames J, Golombp J, Melzer I. Randomized trial of a comparison of rehabilitation or drug therapy for urgency urinary incontinence: 1-year follow-up. Int Urogynecol J. 2012 Nov 17. [Epub ahead of print]

Mansbach A, Melzer I, Bachner YG. Blowing the whistle to protect a patient: a comparison between physiotherapy students and physiotherapists. Physiotherapy. 2012 Dec;98(4):307-12.

Jacob T, Itzchak EB, Raz O.Stress among healthcare students - A cross disciplinary perspective. Physiother Theory Pract. 2012 Oct 24. [Epub ahead of print]

Rabin A, Kozol Z. Weightbearing and nonweightbearing ankle dorsiflexion range of motion: are we measuring the same thing? J Am Podiatr Med Assoc. 2012 Sep-Oct;102(5):406-11.

Zeilig G, Rivel M, Weingarden H, Gaidoukov E, Defrin R. Hemiplegic shoulder pain: Evidence of a neuropathic origin. Pain. 2013 Feb;154(2):263-71.