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## Static and dynamic biomechanical adaptations of the lower limbs and gait pattern changes during pregnancy

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The purpose of this literature review was to evaluate the studies that have static and dynamic biomechanical changes of the lower limbs and gait patterns during pregnancy. Original articles on this subject, published between 1934 and 2012, were considered. In general, pregnant women demonstrated greater hip flexion, more extended knees and less plantar flexion ankles. These changes could explain the gait patterns of pregnant women characterized by increased hip angles, decreased propulsion forces associated with increased durations of stance phase and changes in distributions of the plantar loads with increased loads in the forefoot and decreased ones in the rear foot. This can lead to arthrokinematic deviations that with time contribute to the development of musculoskeletal discomfort. In summary, these findings showed the importance of further longitudinal studies to investigate the relationships between musculoskeletal discomfort in pregnant women in the lower limbs and gait changes observed throughout this period.

## **Biography**

Ana Paula Ribeiro has completed his PhD at the age of 30 years from Sao Paulo University, School of Medicine, SP, Brazil and also is conducting postdoctoral studies at the same University. She is a researcher and professor at the School of Medicine, University of Santo Amaro, SP, Brazil and coordinator of the Laboratory of Biomechanics and Rehabilitation Musculoskeletal with emphasis on research in the areas: Women's Health, Running and Gait Biomechanics, and Corporal Posture. She has published more than 15 papers in reputed journals and serving as a reviewer for several reputed journals in the areas of knowledge.

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