Objectives: The aim of the work is to compare the contents kinesiology movement techniques for various cross-country skiing and walking. Measuring the involvement of selected muscle groups.

Methods: EMG measurement of muscle groups associated with synchronized videorecording. Comparative analysis of different types of locomotion.

Results: There was not evidence of content similarity kinesiology researched techniques of cross country skiing with walking. Keywords: EMG, cross-country skiing, bipedalism, locomotion, gait, motor unit.