The aim of this work is to demonstrate the effectiveness of the use of the diagnostic and the therapeutic part of Computer Kinesiology for secondary prevention of back pain of functional aetiology. In the theoretical part of work is dealed with problems of functional disorders, back pain of functional aetiology and the occurrence of these difficulties in nurses. Finally, work describes diagnostics and the therapy according to the CK. In the practical part of bachelor thesis is presented four case studies of selected nurses. The results of the examination according to CK system, the examination of breathing stereotype, posture, spinal mobility, usually shortened muscles and muscle groups, movement stereotypes and pain before and after the treatment are presented in tables and graphs. The results of this work confirmed hypothesis number one: After the CK therapy, the value of the total dysfunction verified by the CK results will be reduced to at least 3 out of 4 (75%) nurses. The reduction of total dysfunction has occurred in all patients. In addition, hypothesis number three was confirmed: Provided that the back pain of selected patients is caused by a functional disorder, reduction of total dysfunction will reduce the intensity, frequency, and duration of painful attacks. Hypothesis number two: After treatment of functional disorders by the CK system will be corrected breathing stereotype and posture, the mobility of the spine will be increased, amount and degree of shortened muscles will be reduced and the movement stereotypes will be corrected. – has largely confirmed. Thus, the effectiveness of using the diagnostic and therapeutic part of the Computer Kinesiology system for secondary prevention of back pain of functional aetiology has been confirmed.