

Abstract

The aim of this study was to develop methodics of occupational therapy for patients with myoelectric prosthesis, which is used by patients with amputation of upper limbs as well as patients with congenital problems. In the Czech republic there are no complex methodics about occupational therapy and myoelectric prosthesis, despite the huge amount of foreign studies of this topic.

Myoelectric prosthesis uses the principle of sensing myoelectrical signals which are then transformed to the motor output in the terminal portion of the prosthesis. Occupational therapy intervention begins at the preprosthetic phase, the occupational therapist assesses the general potential for the use of myoelectric prosthesis and picks up myoelectric signals from the stump. In interprosthetic phase occupational therapist is dedicated to the training of activities of daily living with myoelectric prosthesis and training residual stump on the basis of myotest. The phase after prosthetic content of occupational therapy evaluation and assessment, which focus on patients ability of myoelectric control and prosthesis involvement in activities of daily living and training of grip. Within the training of grip, occupational therapist is dedicated to training proper grip within the pace, grip strength and targeted movements.

The practical part contains three case studies that demonstrate occupational therapy interventions in practice at different prosthetic phases. Further in this part there are two interviews that highlight the diversity of occupational therapy interventions for patients with myoelectric prosthesis in the Czech Republic and Germany.