

Abstract

Titel: The lower limb limit motion range with prosthesis Procarve

Goals: Measure of skiers with above-knee amputees with prothesis Procarve. We want to find differences in joints mobility between healthy and amputated lower limb. After that we want to consider the impact to differences on the techniques of downhill skiing.

Method: Literature review, interviews , expert interviews , laboratory measurements

Results: At this time, thanks for advances in progress on prosthetics are beginning to explore new possibilities for people with above-knee amputation in sports activities. In our work we just focus on these topic. Selected activities will be downhill skiing on two skis. On this issue , we focus on differences in joint mobility on healthy and amputated lower limb. Amputated limb will be equipped by the special ski Procarve prosthesis from Otto Bock company. The measured results will help us to identify appropriate techniques of downhill skiing.

Key words: downhill skiing, above-knee amputation, prosthesis , downhill skiing technique