The effect of neuromuscular training on co-ordination following anterior cruciate ligament rupture with regard to the Masai Barefoot Technology (MBT) (C. Beyerlein, DE)

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MBT Model: Sole 2004 and High

ABSTRACT

PURPOSE: The goal of this study was to research the effects of neuromuscular training on co-ordination following anterior cruciate ligament rupture, with regard to the Masai Barefoot Technique.

METHOD: We used a „pre-test/ post-test“ design to measure equilibrium both before and after a standardised neuromuscular training. Sixteen patients (n = 16), 11 males and 5 females between the ages of 18 and 55 (average: 29.5 yrs.) were assigned randomly into two categories: a test group (with the Masai Barefoot Technique) and a control group (without this technique). We use the software program “Digi-Max”, combined with “Posturomed”, a training / therapy device, in order to evaluate co-ordination ablity before and after a 6-week standardised neuromuscular training program.

RESULTS: A significant improvement was seen in the mean joint play in the medial-lateral ($p < 0.003$) as well as in the anterior-posterior ($p < 0.001$) direction in both groups after the end of co-odination training. No significant improvement of co-ordination ability was seen in the experimental group (with MBT) as opposed to the control group (without MBT). Likewise, no significant difference could be established between the injured and uninjured side after completion of co-ordination training.

KEY WORDS: Cruciate ligament, neuromuscular training, co-ordination, Masai barefoot Technique (MBT)