

The effect of compression shorts on pain and performance in male football players with groin pain – A double blinded randomized controlled trial

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Abstract

Background

Compression shorts are regularly used for the reduction of groin pain in athletes. Despite positive clinical observations, no data from randomized control trials are available.

Hypothesis

Compression shorts significantly decrease pain without reducing performance in football players with groin pain, compared to compression shorts with a low level of compression or normal shorts.

Objective

To investigate the effects of compression shorts on pain and performance in football players with groin pain.

Study design

Double blinded randomized controlled trial.

Setting

Soccer pitch.

Participants

Thirty-four male football players with groin pain.

Main outcome measures

The effect of wearing zoned high compression shorts (ZHC-shorts), non-zoned low compression shorts (NZLC-shorts), and normal sports clothes on pain measured with the Numeric Pain Rating Scale (NPRS) and performance during the Copenhagen 5-s squeeze test (CS), the Illinois Agility test (IAT), and maximum shooting (ST). The effects of wearing ZHC versus NZLC shorts on symptoms were measured using the Hip and groin outcome score (HAGOS) during actual football activities.

Results

Wearing ZHC-shorts reduced pain during the IAT (1.4, ES = 0.58, $p < 0.01$) and ST (1.2, ES = 0.47, $p < 0.01$) compared to wearing normal sports clothes, but did not negatively affect performance. Compared to the baseline HAGOS scores a clinically significant improvement in the symptoms (9.7, ES = 0.63, $p < 0.01$) and sport/recreation (13.2, ES = 0.68, $p = 0.01$) subscales was found when wearing the ZHC-short during football activities.

Conclusion

Wearing zoned high compression shorts could be useful in reducing groin pain in football players during their football activities.