



# The Effect of a Functional Training Intervention on Injury Risk and FMS scores in Military Recruits.

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## INTRODUCTION

This study was designed to investigate whether a functional training intervention had an effect on injury risk and FMS scores in Irish Defence Forces Military Recruits.

## METHODS

A cohort of ten recruit platoons were divided into two distinctive groups (5 Intervention (n = 154) and 5 Control (n = 154)). Both groups were screened in the first two weeks of training and again in the last two weeks of training. At the start of week 3, the intervention group was given a individualized six (6) week prehabilitation program (weeks 3-8) and a progressed six week program at the start of week nine (weeks 9-14), based on each recruits baseline FMS scores. All injuries over the 12 week period were tracked and recorded.

## RESULTS

There were no significant differences between mean FMS scores of the intervention and control groups prior to the intervention ( $p=0.277$ ). Following the intervention there were significant improvements in total FMS score for the intervention group with mean FMS score improving to  $16.20 (\pm 2.86)$ . The total FMS scores for the control group did not improve significantly at post-test ( $14.75 \pm 3.84$ ). However, despite the improvement in FMS scores there were no significant differences between the groups for injury risk ( $p < 0.000$ ).

## DISCUSSION AND CONCLUSION

The results of this study indicate that specific exercises targeted to improve an individual's movement pattern resulted in a significant mean increase of over 2 points on the 21 point FMS scale. It is still unclear whether improving FMS scores results in a reduction in injury risk.

## PRACTICAL IMPLICATIONS

Non applicable

## REFERENCES

- LISMAN, P., O'CONNOR, F. G., DEUSTER, P. A. & KNAPIK, J. J. 2013. Functional movement screen and aerobic fitness predict injuries in military training. *Journal of Medicine and Science of Sports and Exercise*, 45, 636-643.
- O'CONNOR, F. G., DEUSTER, P. A., DAVIS, J., PAPPAS, C. G. & KNAPIK, J. J. 2011. Functional movement screening: predicting injuries in officer candidates. *Journal of Medicine and Science of Sports and Exercise*, 43, 2224-30.
- TEYHEN, D., BERGERON, M. F., DEUSTER, P., BAUMGARTNER, N., BEUTLER, A. I., SARAH, J., JONES, B. H., LISMAN, P., PADUA, D. A. & PENDERGRASS, T. L. 2014. Consortium for health and military performance and American College of Sports Medicine Summit: Utility of functional movement assessment in identifying musculoskeletal injury risk. *Current sports medicine reports*, 13, 52-63.

## CONFLICT OF INTEREST

NIL