

Introduction

Police officers are required to perform physically demanding tasks as part of their job and may also develop poor postural habits due to prolonged periods of sedentary work, which can increase their risk of injury. Further, officers working night shift are of higher risk of injury occurrence compared to their dayshift counterparts.

Despite this, there is limited research on the movement patterns of police recruits. Therefore, this preliminary data is part of a larger study investigating movement patterns, functional limitations, and risk of potential injuries.

Methods

A total of n=350 law enforcement recruits (overall weight of 87.1 ± 15.4 kg, height of 1.78 ± 0.08 m, and age of 27.3 ± 6.3 years, Mean \pm SD) were assessed.

Body composition was evaluated using BIA ($17.9 \pm 9.7\%$ body fat). The cadets were tested for their overhead squat mobility according to NASM guidelines. Assessed during training command entrance physical test. Movement assessments were completed by three researchers with either the CSCS or BOC, Inc. athletic trainer credential.

Movement fault categories included Ankle Tightness Markers (ie. Feet flattens, foot turns out, heel rises), Hip tightness markers (excessive forward lean, lumbar excessive arch), and shoulder faults (arms fell forward)

Purpose

The aim of this study was to investigate recruit movement. Understanding these movement patterns is crucial in identifying limitations and developing effective training programs to optimize their physical abilities and reduce the risk of injury.

An Exploratory Investigation of Police Recruit Movement Limitations using the Overhead Squat Assessment

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Understanding typical recruit movement limitations can help instructors and tactical strength and conditioning coaches to devise more effective training strategies to address limitations that may impede performance.



EXERCISE & SPORT SCIENCE

Results

With the overhead squat, the highest fault rates among the sample of recruits (n=350) were observed as the following:

Movement Faults	% of Recruits
Foot Turns Out	58.9%
Foot Flattens	56%
Heel Rises	31.6%
Excessive Forward Lean	35.9%
Lumbar Excessive Arch	30.2%
Arms Fall Forward	36.8%

Key Finding -The average total faults for the recruits was 3.67 ± 2.88 out of a potential 12 faults.

*Data shown are from preliminary findings in an ongoing investigation.

Conclusion & Practical Applications

Recruits display a typical pattern of movement dysfunction, including tight ankles, hip flexors, and shoulder limitations that should be addressed through warm-up, cool-downs, and corrective exercises. These findings can help inform the development of effective training programs for police recruits to optimize their movement patterns.

References

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