

Prevent Sprain Technology

**PATENT
PROTECTED**

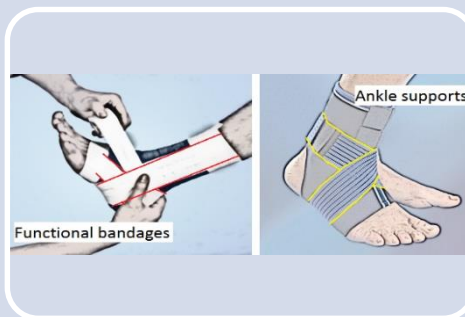


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Problems

- Ankle sprain is the most frequent injury in sports
- 40 % evolves into Chronic Instability

Netherlands

- 650 000 sprains/year
- 360 € - 10 000 €/injury
- 234 000 000 €/year

Solutions

- Functional bandages
- Ankle supports
- Orthosis:
Semi-rigid
Rigid

Innovation

- Patented sports socks
- combines the anatomical and biomechanical principles of functional ligatures and ankle supports

Improved venous return

The compression obtained with the socks favors the venous return, reducing the fatigue associated to the exercise.

Improved performance

The non-slip region enhances the reaction time and prevents foot slippage within the footwear.

High stability

Specific orientation of the tension straps prevent the injury mechanism, favoring the neutral joint position.

Different pressures and elasticities stimulate cutaneous sensory receptors, thus increasing the information to the central nervous system, facilitating the activation of the muscles that actively control the injury mechanism.

High comfort and antibacterial treatment

The high quality of the finishes and raw materials used in the confection of the socks guarantee an extra comfort.

The antibacterial treatment Pureco® ensures the protection against bacterial infections.



Quantitative Pilot Study – Comparison of a Standard Sports Sock with the Prevent Sprain Technology Sock



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Introduction:

The need for preventive measures for ankle sprain is supported by studies that place this type of injury as the most frequent in several sports and in non-athlete populations, representing 80 to 100% of all injuries in this anatomical region in some sports (Fong 2007).

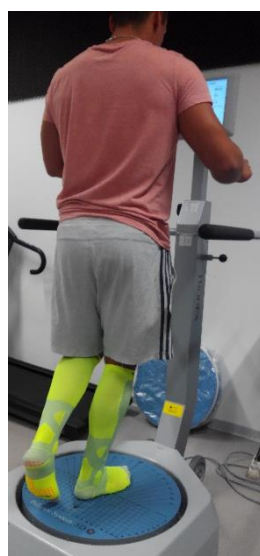
Aim: To evaluate the effect of two sports socks on postural control.

Methodology:

Sample: 2 amateur soccer (♂) and basquetebol (♀) players aged 21, without chronic ankle instability.

Experimental procedures: 3 series of 30 seconds in unipodal support on unstable platform (Biodex Balance System), with each of the models of socks. The order in which the socks were tested was randomized.

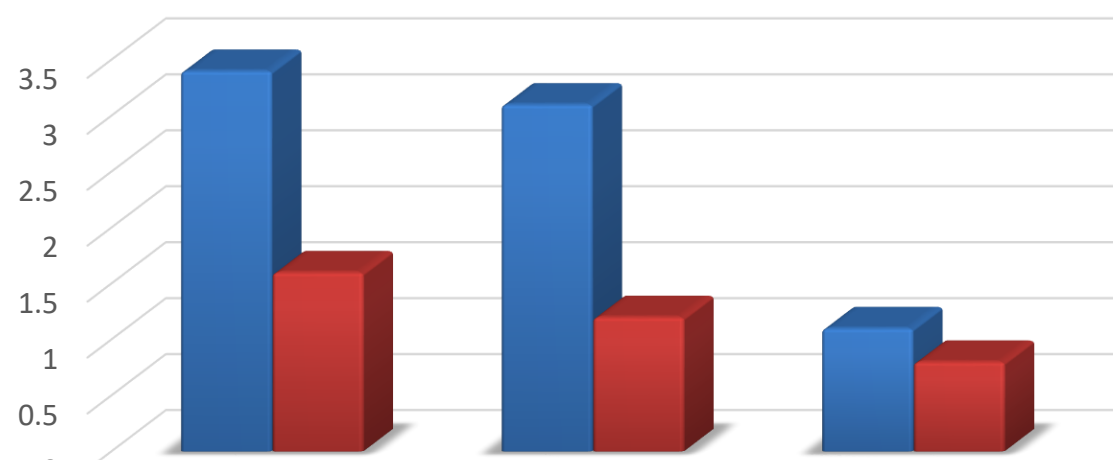
Results:



■ Standard

■ P.S.T.

Instability level Standard socks vs Prevent Sprain Technology



	Overall instability index	Anteroposterior instability index	Mediolateral instability index
■ Standard	3.4	3.1	1.1
■ P.S.T.	1.6	1.2	0.8

Conclusion:

The Prevent Sprain Technology Socks reduced instability in the 30s unipodal support test, proving to be a promising option to ankle sprains prevention. Future studies should analyze the influence of these socks on more athletes with and without chronic ankle instability.

References:

Fong DT, Hong Y, Chan LK, Yung PS, Chan KM. A systematic review on ankle injury and ankle sprain in sports. Sports Medicine 2007;37(1):73-94

Qualitative Field Study – Comparison of a Standard Sports Sock with the Prevent Sprain Technology Sock



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Introduction:

The need for preventive measures for ankle sprain is supported by studies that place this type of injury as the most frequent in several sports and in non-athlete populations, representing 80 to 100% of all injuries in this anatomical region in some sports (Fong 2007).

Aim: Qualitatively evaluate the stability, fatigue, performance and comfort of two sports socks.

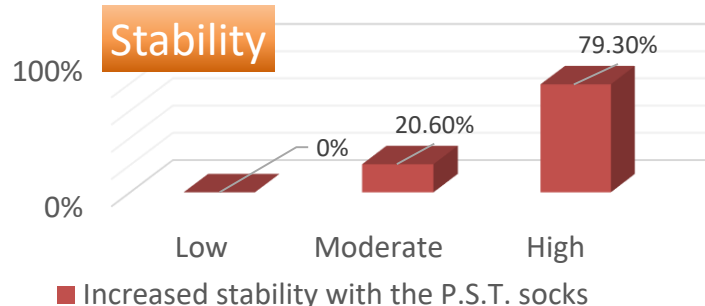
Methodology:

Sample: 20 futsal (♂) and 18 volleyball (♂ ♀) players, aged 20 - 30

Procedures: During a training session the athletes used one standard sports socks on one leg and the P.S.T socks on the other. Subsequently, they answered the questionnaire about the subjective sensation of stability, fatigue, performance and comfort.

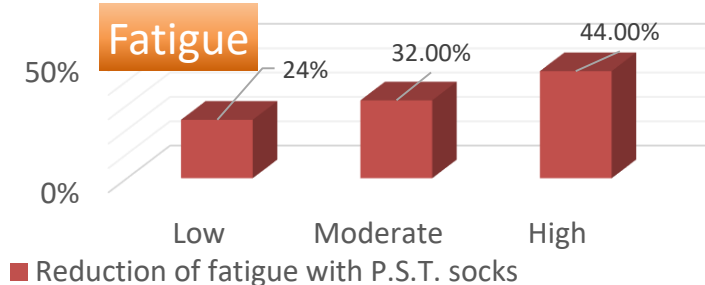


Results: *the results will be presented with reference to the standard socks



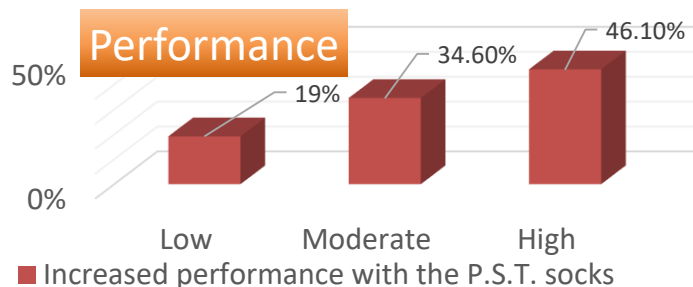
Conclusion:

100% of athletes reported that P.S.T. socks promoted a moderate or high increase in stability, compared to the standard sport socks.



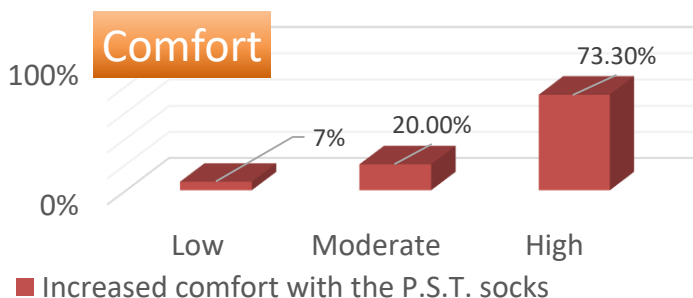
Conclusion:

76% of athletes reported that P.S.T. socks promoted a moderate or high reduction of the fatigue sensation, compared to the standard sport socks.



Conclusion:

80.70% of athletes reported that P.S.T. socks promoted a moderate or high increase in performance, compared to the standard sport socks.



Conclusion:

93.30% of athletes reported that P.S.T. socks promoted a moderate or high increase of comfort, compared to the standard sport socks.