

# EFFECTS OF WARM-UP WITH DYNAMIC EXERCISE AND WITH SMALL SIDED SOCCER GAME ON AGILITY IN PROFESSIONAL SOCCER PLAYERS

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## Introduction

Small sided soccer game is a strategy to simulate the real game situation and it is very useful for training and warm-up. The aim of this study was to compare the effect of warm-up with dynamic exercise (DYN) and with small sided soccer game (SOC) on agility in professional soccer players.

## Methods

Twenty one soccer players of 4<sup>th</sup> division team, Brazil, participated in study. The subjects carried out one agility test (AG) after three different pre-test situations, separated by 48h, randomly. AG: 20m in zig-zag, changing the direction (100°) at each 5m. Three conditions pre-test were: without warm-up (WW), the subjects stayed sitting; warm-up DYN: 2 min of running plus 2 X 8 dynamic exercises (all for leg movement), 10 s each exercise, interceded by jogging; warm-up SOC: game in the field of 30 X 15m, without goalkeeper, played between two teams composed by seven players each. The teams should keep the ball possession, but only it was allowed for players to touch two in ball times before pass. The three situations lasted 10 min each and the AG test was carried out 2-4 min after each pre-test situation. Heart rate (HR) was monitored at each 5s. ANOVA for repeated measures was used ( $p < 0.05$ ).

## Results & Discussion

AG test presented higher results after the two warm-ups in comparing to the WW. However, AG after SOC warm-up was higher than DYN warm-up. HR presented results similar to the AG test. Dynamic exercises had effect on AG test, however, warm-up SOC was more effective than DYN.

Table 1. Results of AG and HR response after three conditions pre-test.

	WW	DYN	SOC
<b>AG (s)</b>	6.62±0.33	5.92±0.49 <sup>a</sup>	5.76±0.32 <sup>a,b</sup>
<b>HR (bpm)</b>	59±12	150±19 <sup>a</sup>	171±14 <sup>a,b</sup>

Significant difference: a≠WW; b≠DYN.

Possibly, during the SOC warm-up the players stimulated muscle fibers employed in specific movement which were elicited during AG test and it were not stimulated effectively during DYN. Higher intensity of HR in SOC may also explain our results.

## Conclusion

The SOC warm-up was more effective than DYN on performance of AG test with ball.