



# The effect of physical exercise according to the program for the development of flexibility in the motoric abilities of young soccer players

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## Introduction

The success in a football game depends in lots of factors, one of the most important factors are motoric skills. Motoric skills or conditional preparation is base for the execution of technical and tactical movements during the football game.

The execution of numerous movements during a football game (speed runs, fast runs with change of direction (acceleration and braking), jumping, execution of technical movements with the ball, depend on the flexibility of the locomotor system of the football player among others (Sermahaj et al. 2017)

The aim of this research is to establish the effect of the flexibility exercise on the motoric abilities of young football players.

## Materials & Methods

### Methods

In this study 68 young players of 11 to 17 years (beginners U-13, n=20; pioneers U-15, n=24; and cadets U-17, n=24) have participated, from Football club Ramiz Sadiku from Pristina. All participants underwent morphological characteristics testing i.e. body height and weight and testing variables of motor abilities for Flexibility (Sit-and-Reach test), Vertical Jump (Maximal Counter Movement Jump-CMJmax), Speed (sprint 5m, 10m and 30m) and Agility (20m running zig-zag with and without ball).

To achieve this objective, the participants were divided into control and experimental group.

The program of control and experimental group was realized within the frame of regular training of Football Club „Ramiz Sadiku“. In the course of preparatory and competition period the training program was conducted three times per week, for both groups. Only the manner of execution of experimental program was different (17 exercises of static stretching) for development of flexibility, which was conducted only with experimental group within the frame of increased duration by the end of the training.

## Results

The parameters are shown in Table 1 for both groups of final measures, and the significance of differences between arithmetic means of variables of the control and experimental group

	Varijable	KG Mean±SD	EG Mean±SD	Anova P- level
Beginners (U13)	Age (years)	12,3±0,5	12,4±0,4	-
	Weight (Kg)	43,25±7,5	39,9±5,6	,282
	Height (cm)	156,1±8,0	153,6±6,2	,453
	Sit and Reach test	1,40±7,67	2,00±3,71	,826
	CMJmax	34,89±6,62	31,46±4,14	,182
	Sprint 5m	1,19±0,7	1,21±0,8	,421
	Sprint 10m	2,08±,10	2,04±,09	,466
	Sprint 30m	5,19±,41	5,23±,28	,779
	20m zig zag without ball	6,91±,44	6,58±,44	,118
	20m zig zag with ball	8,75±,89	8,27±,54	,169
Pioneers (U15)	Age (years)	14,4±0,5	14,2±0,5	-
	Weight (Kg)	54,3±9,1	56,1±8,3	,611
	Height (cm)	170,3±9,6	169,7±7,0	,865
	Sit and Reach test	0,50±6,00	1,66±7,25	,434
	CMJmax	38,78±5,23	39,93±6,44	,636
	Sprint 5m	1,20±,09	1,20±,15	,740
	Sprint 10m	2,04±,14	2,04±,15	,237
	Sprint 30m	4,89±,33	4,90±,31	,975
	20m zig zag without ball	6,75±,31	6,66±,43	,565
	20m zig zag with ball	8,46±,62	8,35±,77	,726
Cadets (U17)	Age (years)	15,9±0,4	16,2±0,6	-
	Weight (Kg)	62,20±8,84	64,05±8,04	,597
	Height (cm)	177,12±6,5	177,68±6,75	,838
	Sit and Reach test	-0,41±3,55	6,25±7,65	,012
	CMJmax	43,34±5,07	41,51±4,07	,342
	Sprint 5m	1,18±,10	1,14±,09	,704
	Sprint 10m	1,92±,08	1,88±,07	,616
	Sprint 30m	4,66±,21	4,55±,16	,201
	20m zig zag without ball	6,23±,29	6,16±,33	,575
	20m zig zag with ball	7,73±,52	7,73±,48	,997

**Results:** The final measurement data in Table 2. show that univariate analysis of variance (ANOVA) based on a coefficient F-relations and value of statistical significance p-value, is proved that between the control and experimental group are significant statistically differences only in the flexibility variable (Sit and Reach test), on the level of P=,012 in the favor of the experimental group of cadets category, and without any positive or negative effect on the other motoric skills variables.

Authentication of the difference between the control and experimental group only on the flexibility variable (Sit and Reach test), shows that the experimental program (static stretching exercises) has impacted of positive changes only in the variable that characterizes flexibility of cadet football players.

## Discussion

The positive long-term effect of static stretching exercises application on flexibility of the cated category of football players is proved from other authors as well (Gardasevic & Bjelica 2013). Also to young football players is proved the non effect of the long-term application of static stretching on motoric skills in speed 30m (Bazett et al., 2008) and vertical jump (Gonçalves et al., 2013), in agility with and without the ball (Sermahaj et al., 2017).

**CONCLUSION:** Therefore, it can be confirmed that static exercises at the end of the training sessions have essential effect on improvement of flexibility of participants older than 15 years old, but without positive or negative effect on other variables of motoric abilities of young players.

## References

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