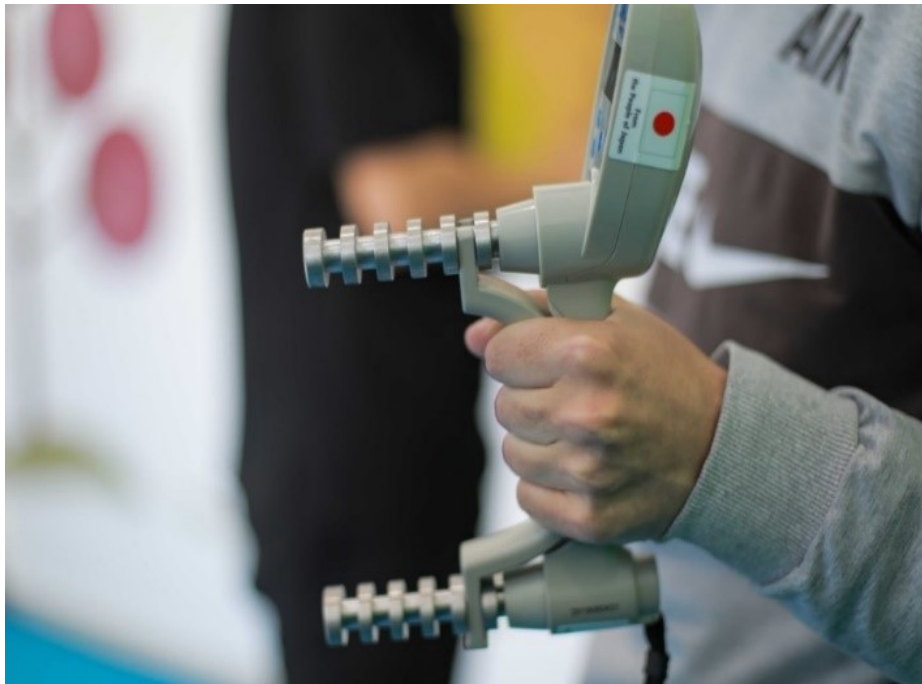**Albanian Sport Science Association**

A monitoring study on anthropometry and motor skills in Albanian Special Olympics athletes during the period 2017-2023: FUN fitness screening test battery

REPORT

Play Unified –Young Athletes

[1]Albanian Sports Science Association
[2]SMART Sport Center
[3]Special Olympic Albania

Introduction

As part of the Special Olympics Health Impact Program in Albania the Albanian Sports Science Association has conducted anthropometric measurements and physical tests of children with disabilities (period 2017- 2023 in Albania). This project is implemented by the Special Olympics Albania, funding from Special Olympics Inc. within the Golisano Foundation for Health of people with Intellectual Disabilities

These measurements are of particular importance not only for reflecting the current level of disabled athletes with but also for monitoring the quality of training program applied in this category.

ASSA team and researchers in cooperation **Speical Olympic Albania** and in collaboration with the experts from **SMART Sport Center** had composed a protocol of measurements based on **the European Protocol for Special Olympics (FUN Fitness Screening)** and protocol for anthropometric measurements and test on children.

This project plans to study basic movements of children with intellectual disabilities, flexibility and strength, finding a correlation between sports practice and physical wellness. Simple measurements were taken.

These tasks were approved by the International Protocol and carefully applied by the team

Methods

SOA athlete's participants were measured during 2017- 2023 period in Albania. Anthopometric **body weight and waist circumference** were measured. While motor test was assessed such as: ***Functional shoulder rotation (flexibility)*** – using ***Modified Apely's test*** (left up/right down) and (right up/left down); ***Timed stand test – sit and stand with no assistance.*** The timed-stands test is a simple method to quantify functional lower extremity muscle strength (hip and knee extension); **The Partial Sit-Up** Test is a simple method to quantify abdominal muscle strength/ endurance; ***Single leg stance with eyes open and close.*** The single-leg stance test with ***eyes open and close*** is a simple method to quantify balance with the assistance of visual cues; **Muscular Strength: Hand Grip Strength. The objective is t**o squeeze the hand dynamometer has forcefully as possible. The Hand Grip Strength Test measures the isometric strength of the hand and forearm muscles

Data are presented only with descriptive statistics analysis such as mean, SD, min and max values for each test assessed in this project in total and by gender.

SO participants during 2017- 2023 period

Age Category (2 yrs)	N	Boys	Girls
5-6 yrs.	4	4	
7-8 yrs.	9	6	3
9-10 yrs.	12	2	10
11-12 yrs.	9	6	3
13-14 yrs.	21	14	7
15-16 yrs.	17	11	6
17-18 yrs.	7	6	1
19-20 yrs.	6	5	1
21+ yrs.	13	11	2

The results

The data extracted from table no. 1 show the average values and the standard division (minimum and maximum values) of body weight by age group for SOA athletes. The average body weight data and standard deviation for the age group 5-6 years are 26.2 kg (DS 12.6), for the age group 7-8 years it is 28.3 kg (DS 5.1), for the age group 9-10 years 34.9 kg (DS 12), for the age group 11-12 years 41.7 kg (DS 11.1), in the age group 13-14 years 55.8 kg (DS 15.7), in the age group 15-16 years 65.8 kg (DS 17.4), in the age group 17-18 years 70 kg (DS 22), in the age group of 19-20 years 58.6 kg (DS 5) and in the group of 21+ years the body weight is 62.6 kg and the standard deviation is 15.2.

Table 1Descriptive statistics for body weight by age groups for Albanian SO athletes

Age Category (2yrs)		N	Minimum	Maximum	Mean	Std. Deviation
5-6 years.	Body Weight	4	19.2	45.0	**26.2**	12.6
7-8 years.	Body Weight	9	22.1	37.2	**28.3**	5.1
9-10 yrs.	Body Weight	12	25.0	66.4	**34.9**	12.0
11-12 yrs.	Body Weight	9	28.5	63.3	**41.7**	11.1
13-14 yrs.	Body Weight	21	28.4	83.5	**55.8**	15.7
15-16 yrs.	Body Weight	17	49.3	109.5	**65.8**	17.4
17-18 yrs.	Body Weight	7	44.7	110.8	**70.0**	22.0
19-20 yrs.	Body Weight	6	53.2	67.4	**58.6**	5.0
21+ yrs.	Body Weight	13	40.2	81.5	**62.6**	15.2

Facts:

From the age group of 5-6 years to the age group of 17-18 years, there is a progressive increase in body weight in SOA athletes. As for the age group of 17-18 years until the age group of 19-20 years, we observe a progressive decrease in the body weight of athletes, which will be followed again by an increase in body weight at the age of 21+ years.

The data extracted from table no. 2 show the average values and the standard division (minimum and maximum values) of body weight according to age group for male SOA athletes. The average body weight data and standard deviation for the age group 5-6 years are 26.2 kg (SD 12.6), for the age group 7-8 years it is 28.1 kg (SD 5.6), for the age group 9-10 years 31.5 kg (SD 2.9), for the age group 11-12 years 40.6 kg (DS 8.1), in the age group 13-14 years 56.4 kg (DS 15.2), in the age group 15-16 years 71.2 kg (DS 19.4), in the age group 17-18 years 71.9 kg (DS 23.4), in the age group 19-20 years 58.9 kg (DS 5.5) and in the group 21+ years the body weight is 66.5 kg and the standard deviation 13.

Table 2Descriptive statistics for body weight by age groups for Albanian SO athletes boys

Age Category (2yrs)		N	Minimum	Maximum	Mean	Std. Well
5-6 years.	Boys	4	19.2	45.0	**26.2**	12.6
7-8 years.	Boys	6	22.1	37.2	**28.1**	5.6
9-10 yrs.	Boys	2	29.4	33.5	**31.5**	2.9
11-12 yrs.	Boys	6	32.0	52.9	**40.6**	8.1
13-14 yrs.	Boys	14	35.1	82.6	**56.4**	15.2
15-16 yrs.	Boys	11	49.3	109.5	**71.2**	19.4
17-18 yrs.	Boys	6	44.7	110.8	**71.9**	23.4
19-20 yrs.	Boys	5	53.2	67.4	**58.9**	5.5
21+ yrs.	Boys	11	44.3	81.5	**66.5**	13.0

Facts:

First, there is a progressive increase in body weight in male SOA athletes from the age group of 5-6 years to the age group of 15-16 years. In the age groups 15-16- and 17-18-years boys will have a stability of body weight, but there is a decrease in body weight until the age group 19-20 years and we will again have a progressive increase in the body weight of SOA athletes, after the age 21 years old.

The data extracted from table no. 3 show the average values and the standard division (minimum and maximum values) of body weight according to age group for female SOA athletes. Average body weight data and standard deviation for the age group 5-6 years are 0, for the age group 7-8 years it is 28.6 kg (DS 5), for the age group 9-10 years 35.6 kg (DS 13.1), for the age group 11-12 years 43.9 kg (DS 17.7), in the age group 13-14 years 54.6 kg (DS 17.8), in the age group 15-16 years 55.8 kg (DS 5.2), in the age group 17-18 years 58.7 kg (DS -), in the age group 19 -20 years 56.9 kg (DS -) and in the 21+ year group the body weight is 41.3 kg and the standard deviation is 1.5.

Table 3Descriptive statistics for body weight by age groups for Albanian SO athletes girls

Age Category (2yrs)		N	Minimum	Maximum	Mean	Std. Well
5-6 years.						
7-8 years.	Girls	3	24.1	34.0	**28.6**	5.0
9-10 yrs.	Girls	10	25.0	66.4	**35.6**	13.1
11-12 yrs.	Girls	3	28.5	63.3	**43.9**	17.7
13-14 yrs.	Girls	7	28.4	83.5	**54.6**	17.8
15-16 yrs.	Girls	6	50.1	63.5	**55.8**	5.2
17-18 yrs.	Girls	1	58.7	58.7	**58.7**	.
19-20 yrs.	Girls	1	56.9	56.9	**56.9**	.
21+ yrs.	Girls	2	40.2	42.3	**41.3**	1.5

Facts:

In SOA female athletes from the age group of 5-6 years to the age group of 17-18 years, there is a progressive increase in body weight. From the age group of 17-18 years and growing, we will notice a progressive decrease in the body weight of female athletes.

The data extracted from table no. 4 show the average values and the standard division (minimum and maximum values) of waist circumference according to age group for SOA athletes. The average waist circumference data and standard deviation for the 5-6 year old age group is 62 cm (DS 11.2), for the 7-8 year old age group it is 62.2 cm (DS 7.1), for the 9-10 year old age group 65.6 cm (DS 17.3) , for the age group 11-12 years 70.1 cm (DS 11.9), in the

age group 13-14 years 91.2 cm (DS 27.8), in the age group 15-16 years 101.1 cm (DS 32.8), in the age group 17-18 years 114.1 cm (DS38 .1), in the age group 19-20 years 80.8 cm (DS 5.1) and in the group 21+ years the waist circumference is 86.5 cm and the standard deviation 11.2.

Table 4Descriptive statistics for waist circumference by age groups for Albanian SO athletes

Age Category (2yrs)		N	Minimum	Maximum	**Mean**	Std. Deviation
5-6 years.	Waist Circumference	4	52.0	76.0	**62.0**	11.2
7-8 years.	Waist Circumference	9	54.0	72.0	**62.2**	7.1
9-10 yrs.	Waist Circumference	12	29.0	103.0	**65.6**	17.3
11-12 yrs.	Waist Circumference	9	56.0	92.0	**70.1**	11.9
13-14 yrs.	Waist Circumference	20	64.0	153.0	**91.2**	27.8
15-16 yrs.	Waist Circumference	16	71.0	166.0	**101.1**	32.8
17-18 yrs.	Waist Circumference	7	68.7	171.7	**114.1**	38.1
19-20 yrs.	Waist Circumference	6	73.0	85.5	**80.8**	5.1
21+ yrs.	Waist Circumference	13	73.0	105.0	**86.5**	11.2

Facts:

The waist circumference of SOA athletes has a progressive increase, starting from the age group of 5-6 years to the age group of 17-18 years. In the size of the waist circumference, we will notice a progressive reduction of athletes from the age group of 17-18 years to the age group of 19-20 years, but this will be followed again by an increase in the waist circumference at the age of 21+ years.

The data extracted from table no. 5 show the average values and the standard division (minimum and maximum values) of the waist circumference according to the age group for male SOA athletes. The average waist circumference data and standard deviation for the 5-6 year old age group is 62 cm (DS 11.2), for the 7-8 year old age group it is 60.4 cm (DS 6.3), for the 9-10 year old age group 66.5 cm (DS 9.2) , for the age group 11-12 years 68.3 cm (DS 9.2), in the age group 13-14 years 91.8 cm (DS 28), in the age group 15-16 years 98.2 cm (DS 26.7), in the age group 17-18 years 106.7 cm (DS 35.8), in the age group 19-20 years 80.4 cm (DS 5.5) and in the group 21+ years the waist circumference is 88.5 cm and standard deviation 11.

Table 5Descriptive statistics for waist circumference by age groups for Albanian SO athlete boys

Age Category (2yrs)		N	Minimum	Maximum	Mean	Std. Well
5-6 years.	Boys	4	52.0	76.0	**62.0**	11.2
7-8 years.	Boys	6	54.0	72.0	**60.4**	6.3
9-10 yrs.	Boys	2	60.0	73.0	**66.5**	9.2
11-12 yrs.	Boys	6	59.0	84.0	**68.3**	9.2
13-14 yrs.	Boys	13	65.0	153.0	**91.8**	28.0
15-16 yrs.	Boys	10	74.0	163.7	**98.2**	26.7
17-18 yrs.	Boys	6	68.7	171.7	**106.7**	35.8
19-20 yrs.	Boys	5	73.0	85.5	**80.4**	5.5
21+ yrs.	Boys	11	73.0	105.0	**88.5**	11.0

Facts:

As for the waist circumference of SOA male athletes from the age group of 7-8 years to the age group of 17-18 years, there is a progressive increase. From the 17-18 age group to the 19-20 age group, boys have a decrease in waist circumference, which will again be followed by a progressive increase in the waist circumference of male SOA athletes.

The data extracted from table no. 6 show the average values and the standard division (minimum and maximum values) of waist circumference according to age group for SOA female athletes. The average waist circumference data and standard deviation for the age group 5-6 years are -, for the age group 7-8 years it is 65.8 cm (DS 8.6), for the age group 9-10 years 66.5 cm (DS 18.9), for the age group 11- 12 years 73.7 cm (DS 18), in the age group 13-14 years 90 cm (DS 29.7), in the age group 15-16 years 106.1 cm (DS 43.6), in the age group 17-18 years 158.5 cm (DS -), in the age group 19-20 years old 83 cm (DS -) and in the 21+ years group the waist circumference is 75.5 cm and the standard deviation 2.1.

Table 6Descriptive statistics for waist circumference by age group for Albanian SO athlete girls

Age Category (2yrs)		N	Minimum	Maximum	Mean	Std. Well
5-6 years.						
7-8 years.	Girls	3	56.0	72.0	**65.8**	8.6
9-10 yrs.	Girls	10	29.0	103.0	**65.5**	18.9

11-12 yrs.	Girls	3	56.0	92.0	**73.7**	18.0
13-14 yrs.	Girls	7	64.0	149.8	**90.0**	29.7
15-16 yrs.	Girls	6	71.0	166.0	**106.1**	43.6
17-18 yrs.	Girls	1	158.5	158.5	**158.5**	.
19-20 yrs.	Girls	1	83.0	83.0	**83.0**	.
21+ yrs.	Girls	2	74.0	77.0	**75.5**	2.1

Facts:

There is a progressive increase in waist circumference in SOA female athletes from the age group of 7-8 years to the age group of 17-18 years. From the age group of 17-18 years and growing, we will notice a progressive decrease in the waist circumference in female SOA athletes.

The data extracted from table no. 7 show the average values and the standard deviation (minimum and maximum value) of flexibility according to age groups for SOA athletes. Average left hand up/right down flexibility data for the 5-6 year old age group is -1.5 cm (DS 4.4), the 7-8 year old age group is -10.6 cm (DS 9.3), the 9-10 year old age group is -3.3 cm (DS 6), age group 11-12 years old are -5.5 cm (DS 6.7), age group 13-14 years old are -6.9 cm (DS 8.7), age group 15-16 years old are -9.4 cm (DS 10.1), age group 17 -18 year olds are -8 cm (SD 16.8), 19-20 year olds are -9.4 cm (SD 10.9) and for the +21 age group the mean and standard deviation are -7.2 cm (SD 7.5). For the right hand up/left down average data for the 5-6 year old age group is -0.5 cm (DS 4.1), the 7-8 year old age group is -11.4 cm (DS 7.7), the 9-10 year old age group is -2.9 cm (DS 6), the age group 11-12 years old are -1.3 cm (DS 9.4), the age group 13-14 years old are -4.4 cm (DS 7.3), the age group 15-16 years old are -4.6 cm (DS 9.3), the age group 17- 18-year-olds are -6.8 cm (SD 12.5), 19-20-year-olds are -7.8 cm (SD 13.8) and for the +21-year-old age group, the average and standard deviation are 6.5 cm (SD 6.7).

Table 7Descriptive statistics for flexibility of upper limbs by age groups for Albanian SO athletes

Age Category (2yrs)		N	Minimum	Maximum	Mean	Std. Deviation
5-6 years.	Flexibility Left up/ Right down	4	-8.0	2.0	**-1.5**	4.4
	Flexibility Right up/Left down	4	-6.0	4.0	**-0.5**	4.1
7-8 years.	Flexibility Left up/ Right down	7	-21.0	3.0	**-10.6**	9.3
	Flexibility Right up/Left down	7	-21.0	1.0	**-11.4**	7.7

Age group	Flexibility				
9-10 yrs.	Flexibility Left up/ Right down	12	-12.0	4.0	**-3.3**	6.0
	Flexibility Right up/Left down	12	-14.0	4.0	**-2.9**	6.0
11-12 yrs.	Flexibility Left up/ Right down	10	-20.0	2.0	**-5.5**	6.7
	Flexibility Right up/Left down	10	-24.0	8.0	**-1.3**	9.4
13-14 yrs.	Flexibility Left up/ Right down	24	-25.0	5.0	**-6.9**	8.7
	Flexibility Right up/Left down	24	-21.0	6.0	**-4.4**	7.3
15-16 yrs.	Flexibility Left up/ Right down	27	-36.0	6.0	**-9.4**	10.1
	Flexibility Right up/Left down	27	-29.0	7.0	**-4.6**	9.3
17-18 yrs.	Flexibility Left up/ Right down	13	-41.0	7.0	**-8.0**	16.8
	Flexibility Right up/Left down	13	-32.0	6.5	**-6.8**	12.5
19-20 yrs.	Flexibility Left up/ Right down	7	-24.0	4.0	**-9.4**	10.9
	Flexibility Right up/Left down	7	-35.0	2.5	**-7.8**	13.8
21+ yrs.	Flexibility Left up/ Right down	11	-20.0	6.0	**-7.2**	7.5
	Flexibility Right up/Left down	11	-16.0	4.0	**-6.5**	6.7

Facts:

From the flexibility test result, we notice that all age groups 5-6, 7-8, 9-10 and 21+ report the same flexibility performance as for right hand up/left hand down and vice versa.

In the age group 11-12, 13-14, 15-16, 17-18 and 19-20 years a better flexibility performance is reported for right hand up/left hand down.

From the age group of 7-8 years to the age group of 9-10 years we will notice an improvement in flexibility both for the left hand up/right down and the right up/left down, where later with the increase in the age of the athletes it will also worsen flexibility performance. But compared to the 7-8 age group, all athletes of other age groups have better flexibility.

The data extracted from table no. 8 show the average values and the standard deviation (minimum and maximum value) of flexibility according to age groups for male SOA athletes. Average left hand up/right down flexibility data for the 5-6 year old age group is -1.5 cm (DS 4.4), the 7-8 year old age group is -13.2 cm (DS 8.6), the 9-10 year old age group is -5 cm (DS 7.1), the age group 11-12 years old are -5.3 cm (DS 4.2), the age group 13-14 years old are -6.4 cm (DS 7.5), the age group 15-16 years old are -12 cm (DS 10.1), the age group 17 -18 years old are -9.1 cm (SD 16.9), 19-20 year olds are -11 cm (SD 11) and for the +21 age group the average and standard deviation are -7.8 cm (SD 7.9). For the right hand up/left down average data for the 5-6 year old age group is -0.5 cm (DS 4.1), the 7-8 year old age group is -

13.2 cm (DS 6.6), the 9-10 year old age group is -5.5 cm (DS 7.8), the age group 11-12 years old are -0.7 cm (DS 6), the age group 13-14 years old are -4.6 cm (DS 7.7), the age group 15-16 years old are -5.7 cm (DS 10), the age group 17- 18-year-olds are -7.9 cm (SD 12.4), 19-20-year-olds are -9.7 cm (SD 14.7) and for the +21-year-old age group, the average and standard deviation are 6.8 cm (SD 6.9).

Table 8Descriptive statistics for flexibility of upper limbs by age groups for Albanian SO athlete boys

Age Category (2yrs)	Gender		N	Minimum	Maximum	Mean	Std. Deviation
5-6 years.	Boys	Flexibility Left up/ Right down	4	-8.0	2.0	**-1.5**	4.4
		Flexibility Right up/Left down	4	-6.0	4.0	**-0.5**	4.1
7-8 years.	Boys	Flexibility Left up/ Right down	5	-21.0	.0	**-13.2**	8.6
		Flexibility Right up/Left down	5	-21.0	-3.0	**-13.2**	6.6
9-10 yrs.	Boys	Flexibility Left up/ Right down	2	-10.0	.0	**-5.0**	7.1
		Flexibility Right up/Left down	2	-11.0	.0	**-5.5**	7.8
11-12 yrs.	Boys	Flexibility Left up/ Right down	7	-9.0	2.0	**-5.3**	4.2
		Flexibility Right up/Left down	7	-9.0	8.0	**0.7**	6.0
13-14 yrs.	Boys	Flexibility Left up/ Right down	16	-21.0	5.0	**-6.4**	7.5
		Flexibility Right up/Left down	16	-21.0	6.0	**-4.6**	7.7
15-16 yrs.	Boys	Flexibility Left up/ Right down	19	-36.0	.0	**-12.0**	10.1
		Flexibility Right up/Left down	19	-29.0	5.0	**-5.7**	10.0
17-18 yrs.	Boys	Flexibility Left up/ Right down	12	-41.0	7.0	**-9.1**	16.9
		Flexibility Right up/Left down	12	-32.0	6.5	**-7.9**	12.4
19-20 yrs.	Boys	Flexibility Left up/ Right down	6	-24.0	4.0	**-11.0**	11.0
		Flexibility Right up/Left down	6	-35.0	2.5	**-9.1**	14.7
21+ yrs.	Boys	Flexibility Left up/ Right down	9	-20.0	6.0	**-7.8**	7.9
		Flexibility Right up/Left down	9	-16.0	4.0	**-6.8**	6.9

Facts:

From the results of the flexibility test in boys, we notice that all age groups 5-6, 7-8, 9-10 and 21+ report the same performance as for right hand up/left hand down and vice versa.

In boys in the age group 11-12, 13-14, 15-16, 17-18 and 19-20 years a better flexibility performance is reported for right hand up/left hand down.

The data extracted from table no. 9 show the average values and the standard deviation (minimum and maximum value) of flexibility according to age groups for SOA female athletes. Average left hand up/right down flexibility data for 5-6 year old age group is -, 7-8 year old age group is -4 cm (DS 9.9), 9-10 year old age group is -2.9 cm (DS 6.1), age group 11-12 years old are -6 cm (DS 12.2), age group 13-14 years old are -7.9 cm (DS 11.3), age group 15-16 years old are -3.4 cm (DS 7.5), age group 17-18 years old are -6 cm (DS -), the 19-20 age group is -0 cm (DS -) and for the +21 age group the average and standard deviation are -4.5 cm (DS 6.4). As for right hand up/left down, the average data for the 5-6 year old age group is -, the 7-8 year old age group is -7 cm (DS 11.3), the 9-10 year old age group is -2.4 cm (DS 6), the age group 11-12 year olds are -6 cm (DS 15.6), 13-14 year olds are -4 cm (DS 6.8), 15-16 year olds are -2.1 cm (DS 7.6), 17-18 year olds are -6 cm (DS -), the age group 19-20 years old are -0 cm (DS -) and for the age group +21 years old the average and standard deviation are 5.5 cm (DS 7.8).

Table 9Descriptive statistics for flexibility of upper limbs by age groups for Albanian SO athletes' girls

Age Category (2yrs)	Gender		N	Minimum	Maximum	Mean	Std. Deviation
5-6 years.	Girls	Flexibility Left up/ Right down					
		Flexibility Right up/Left down					
7-8 years.	Girls	Flexibility Left up/ Right down	2	-11.0	3.0	**-4.0**	9.9
		Flexibility Right up/Left down	2	-15.0	1.0	**-7.0**	11.3
9-10 yrs.	Girls	Flexibility Left up/ Right down	10	-12.0	4.0	**-2.9**	6.1
		Flexibility Right up/Left down	10	-14.0	4.0	**-2.4**	6.0
11-12 yrs.	Girls	Flexibility Left up/ Right down	3	-20.0	2.0	**-6.0**	12.2
		Flexibility Right up/Left down	3	-24.0	4.0	**-6.0**	15.6
13-14 yrs.	Girls	Flexibility Left up/ Right down	8	-25.0	4.5	**-7.9**	11.3
		Flexibility Right up/Left down	8	-17.0	3.0	**-4.0**	6.8
15-16 yrs.	Girls	Flexibility Left up/ Right down	8	-11.5	6.0	**-3.4**	7.5
		Flexibility Right up/Left down	8	-16.0	7.0	**-2.1**	7.6
17-18 yrs.	Girls	Flexibility Left up/ Right down	1	6.0	6.0	**6.0**	
		Flexibility Right up/Left down	1	6.0	6.0	**6.0**	
19-20 yrs.	Girls	Flexibility Left up/ Right down	1	.0	.0	**0.0**	
		Flexibility Right up/Left down	1	.0	.0	**0.0**	

Age Category		N	Minimum	Maximum	Mean	Std. Deviation
21+ yrs.	Girls	Flexibility Left up/ Right down	2	-9.0	.0	**-4.5**	6.4
		Flexibility Right up/Left down	2	-11.0	.0	**-5.5**	7.8

Facts:

From the results of the flexibility test in girls, we notice that all age groups 9-10, 11-12, 15-16, 17-18, 19-20 and 21+ report the same flexibility performance as for the upper right hand/ left down and vice versa.

In the age group of 13-14 years, a better flexibility performance is reported for the right hand up/left down, while for the age group of 7-8 years, a better flexibility is reported for the left hand up/right down.

The age group with the best performance of flexibility among girls is the age group of 19-20 years.

Table no. 10 shows the average values and standard deviation (minimum and maximum value) of balance tests with eyes open and right/left leg up according to age groups for SOA athletes. Mean and standard deviation of balance test with eyes open: right/left leg for age group 5-6 are 16.1 sec (SD 13.6)/ 12.2 sec (SD 8.5), age group 7-8 are 2 sec (SD 2.5)/ 2.1 sec (DS 2.1), the age group 9-10 years old are 24.3 sec (DS 25)/ 26.1 sec (DS 24.4), the age group 11-12 years old are 23.6 sec (DS 20.2)/20.5 sec (DS 17.8), the age group 13-14 year olds are 21.2 sec (DS 23)/19.7 sec (DS 22.5), 15-16 year olds are 14.3 sec (DS 12.8)/13.2 sec (DS 13), 17-18 age group are 17.9 sec (DS 19.6)/10.6 sec (DS 10), the age group 19-20 years old are 12.4 sec (DS 11.5)/1 1.9 sec (DS 10.6) and for the +21 age group the average and standard deviation are 14.9 sec (DS 19.7)/12.9 sec (DS 19.5).

Table 10Descriptive statistics for balance (single leg/ eyes open) of lower limbs by age groups for Albanian SO athletes

Age Category (2yrs)		N	Minimum	Maximum	Mean	Std. Deviation
5-6 years.	Single Leg Stance Eyes Open/ Right	3	3.3	30.3	**16.1**	13.6
	Single Leg Stance Eyes Open/ Left	3	3.0	19.7	**12.2**	8.5
7-8 years.	Single Leg Stance Eyes Open/ Right	7	.0	7.0	**2.0**	2.5
	Single Leg Stance Eyes Open/ Left	7	.0	5.1	**2.1**	2.1
9-10 yrs.	Single Leg Stance Eyes Open/ Right	11	1.2	60.0	**24.3**	25.0
	Single Leg Stance Eyes Open/ Left	11	3.0	60.0	**26.1**	24.4
11-12 yrs.	Single Leg Stance Eyes Open/ Right	8	2.0	60.0	**23.6**	20.2
	Single Leg Stance Eyes Open/ Left	8	2.0	60.0	**20.5**	17.8
13-14 yrs.	Single Leg Stance Eyes Open/ Right	23	.5	60.0	**21.2**	23.0
	Single Leg Stance Eyes Open/ Left	23	.5	60.0	**19.7**	22.5

15-16 yrs.	Single Leg Stance Eyes Open/ Right	28	.0	60.0	**14.3**	12.8
	Single Leg Stance Eyes Open/ Left	28	.0	60.0	**13.2**	13.0
17-18 yrs.	Single Leg Stance Eyes Open/ Right	9	2.0	60.0	**17.9**	19.6
	Single Leg Stance Eyes Open/ Left	9	2.5	30.0	**10.6**	10.0
19-20 yrs.	Single Leg Stance Eyes Open/ Right	6	1.0	30.0	**12.4**	11.5
	Single Leg Stance Eyes Open/ Left	6	2.3	30.0	**11.9**	10.6
21+ yrs.	Single Leg Stance Eyes Open/ Right	8	2.0	60.0	**14.9**	19.7
	Single Leg Stance Eyes Open/ Left	8	2.0	60.0	**12.9**	19.5

Facts:

From the obtained results we conclude that the age group that has the best balance performance in the standing test with one leg high right/left, eyes open is the age group 9-10 years old, while the age group that has the worst performance is the age group 7-8 years old.

The same values of standing with the right leg up or left and eyes open are reported in the age groups of 7-8 years, 15-16 years and 19-20 years.

If we refer to other age groups such as 5-6 years, 11-12 years, 13-14 years, 17-18 years and 21+ years, we will see a better performance in standing with the right leg up and eyes open compared to the standing test with one left leg up, eyes open.

Regarding the age group 9-10 years old, we conclude that the athletes have a better performance in standing with the left leg up and eyes open compared to the test of standing with one right leg up, eyes open.

Table no. 11 shows the average values and standard deviation (minimum and maximum value) of balance tests with eyes open and right/left leg up according to age groups for male SOA athletes. Mean and standard deviation of balance test with eyes open: right/left leg for age group 5-6 are 16.1 sec (SD 13.6)/ 12.2 sec (SD 8.5), age group 7-8 are 2.2 sec (SD 2.9)/ 2 sec (DS 1.8), the age group 9-10 years old are 33.6 sec (DS 37.3)/ 19.3 sec (DS 14.5), the age group 11-12 years old are 21.1 sec (DS 13.7)/16.1 sec (DS 8.8), the age group 13-14 year olds are 23.2 sec (DS 24.2)/21.2 sec (DS 23.8), 15-16 year olds are 13.4 sec (DS 14.2)/12.7 sec (DS 13.7), 17-18 age group are 16.3 sec (DS 20.3)/11.5 sec (DS 10.3), the age group 19-20 years old are 13.5 sec (DS 12.5)/13.3 sec (DS 11.3) and for the +21 age group the mean and standard deviation are 16.2 sec (DS 22.4)/13.8 sec (DS 22.8).

Table 11Descriptive statistics for balance (single leg/ eyes open) of lower limbs by age groups for Albanian SO athletes' boys

Age Category (2yrs)	Gender		N	Minimum	Maximum	Mean	Std. Deviation
5-6 years.	Boys	Single Leg Stance Eyes Open/ Right	3	3.3	30.3	**16.1**	13.6
		Single Leg Stance Eyes Open/ Left	3	3.0	19.7	**12.2**	8.5
7-8 years.	Boys	Single Leg Stance Eyes Open/ Right	5	.0	7.0	**2.2**	2.9
		Single Leg Stance Eyes Open/ Left	5	.0	4.0	**2.0**	1.8
9-10 yrs.	Boys	Single Leg Stance Eyes Open/ Right	2	7.3	60.0	**33.6**	37.3
		Single Leg Stance Eyes Open/ Left	2	9.0	29.5	**19.3**	14.5
11-12 yrs.	Boys	Single Leg Stance Eyes Open/ Right	4	10.0	40.7	**21.1**	13.7
		Single Leg Stance Eyes Open/ Left	4	7.1	24.0	**16.1**	8.8
13-14 yrs.	Boys	Single Leg Stance Eyes Open/ Right	16	1.0	60.0	**23.2**	24.2
		Single Leg Stance Eyes Open/ Left	16	1.0	60.0	**21.2**	23.8
15-16 yrs.	Boys	Single Leg Stance Eyes Open/ Right	20	.0	60.0	**13.4**	14.2
		Single Leg Stance Eyes Open/ Left	20	.0	60.0	**12.7**	13.7
17-18 yrs.	Boys	Single Leg Stance Eyes Open/ Right	8	2.0	60.0	**16.3**	20.3
		Single Leg Stance Eyes Open/ Left	8	2.5	30.0	**11.5**	10.3
19-20 yrs.	Boys	Single Leg Stance Eyes Open/ Right	5	1.0	30.0	**13.5**	12.5
		Single Leg Stance Eyes Open/ Left	5	2.3	30.0	**13.3**	11.3
21+ yrs.	Boys	Single Leg Stance Eyes Open/ Right	6	2.0	60.0	**16.2**	22.4
		Single Leg Stance Eyes Open/ Left	6	2.0	60.0	**13.8**	22.8

Facts:

From the results obtained in boys we conclude that the age group that has the best balance performance in the standing test with one leg high right/left, eyes open is the age group of 9-10 years, while the age group that has the worst performance is the age group of 7-8 years.

The same values of standing with the right leg up or left and eyes open are reported in male athletes in the age groups of 7-8 years, 15-16 years and 19-20 years.

If we refer to other age groups such as 5-6 years, 9-10 years, 11-12 years, 13-14 years, 17-18 years and 21+ years, we will see a better performance in standing with the right leg up and eyes open versus standing test with one left leg elevated, eyes open.

Table no. 12 shows the average values and standard deviation (minimum and maximum value) of balance tests with eyes open and right/left leg up according to age groups for SOA female athletes. The mean and standard deviation of the balance test with eyes open: right/left leg for the age group 5-6 years are -, the age group 7-8 years are 1.7 sec (DS 2.4)/ 2.6 sec (DS 3.6), the age group 9- 10 year olds are 22.2 sec (DS 24.1)/ 27.6 sec (DS 26.6), 11-12 year olds are 26.2 sec (DS 27.3)/25 sec (DS 24.7), 13-14 age group are 16.6 sec (DS 20.8)/ 16.3 sec (DS 20.6), the 15-16 age group are 16.3 sec (DS 8.8)/14.5 sec (DS 11.8), the 17-18 age group are 31 sec (DS -)/3 sec (DS -), the 19- 20 year olds are 7 sec (DS -)/5 sec (DS -) and for the age group +21 years old the mean and standard deviation are 11 sec (DS 12.7)/10 sec (DS 7.1).

Table 12Descriptive statistics for balance (single leg/ eyes open) of lower limbs by age groups for Albanian SO athletes' girls

Age Category (2yrs)	Gender		N	Minimum	Maximum	Mean	Std. Deviation
5-6 years.		Single Leg Stance Eyes Open/ Right					
		Single Leg Stance Eyes Open/ Left					
7-8 years.	Girls	Single Leg Stance Eyes Open/ Right	2	.0	3.4	**1.7**	2.4
		Single Leg Stance Eyes Open/ Left	2	.0	5.1	**2.6**	3.6
9-10 yrs.	Girls	Single Leg Stance Eyes Open/ Right	9	1.2	60.0	**22.2**	24.1
		Single Leg Stance Eyes Open/ Left	9	3.0	60.0	**27.6**	26.6
11-12 yrs.	Girls	Single Leg Stance Eyes Open/ Right	4	2.0	60.0	**26.2**	27.3
		Single Leg Stance Eyes Open/ Left	4	2.0	60.0	**25.0**	24.7
13-14 yrs.	Girls	Single Leg Stance Eyes Open/ Right	7	.5	60.0	**16.6**	20.8
		Single Leg Stance Eyes Open/ Left	7	.5	60.0	**16.3**	20.6
15-16 yrs.	Girls	Single Leg Stance Eyes Open/ Right	8	10.0	30.0	**16.3**	8.8
		Single Leg Stance Eyes Open/ Left	8	2.0	33.0	**14.5**	11.8
17-18 yrs.	Girls	Single Leg Stance Eyes Open/ Right	1	31.0	31.0	**31.0**	
		Single Leg Stance Eyes Open/ Left	1	3.0	3.0	**3.0**	
19-20 yrs.	Girls	Single Leg Stance Eyes Open/ Right	1	7.0	7.0	**7.0**	
		Single Leg Stance Eyes Open/ Left	1	5.0	5.0	**5.0**	
21+ yrs.	Girls	Single Leg Stance Eyes Open/ Right	2	2.0	20.0	**11.0**	12.7
		Single Leg Stance Eyes Open/ Left	2	5.0	15.0	**10.0**	7.1

Facts:

Table no. 13 shows the average values and standard deviation (minimum and maximum value) of balance tests with eyes closed and right/left leg up according to age groups for SOA athletes. The mean and standard deviation of the balance test with eyes closed: right/left leg for the age group 5-6 years are -, the age group 7-8 years are 1.7 sec (DS 2.4)/ 2.6 sec (DS 3.6), the age group 9- 10 year olds are 22.2 sec (DS 24.1)/ 27.6 sec (DS 26.6), 11-12 year olds are 26.2 sec (DS 27.3)/25 sec (DS 24.7), 13-14 age group are 16.6 sec (DS 20.8)/ 16.3 sec (DS 20.6), the 15-16 age group are 16.3 sec (DS 8.8)/14.5 sec (DS 11.8), the 17-18 age group are 31 sec (DS -)/3 sec (DS -), the 19- 20 year olds are 7 sec (DS -)/5 sec (DS -) and for the age group +21 years old the mean and standard deviation are 11 sec (DS 12.7)/10 sec (DS 7.1).

Table 13Descriptive statistics for balance (single leg/ eyes close) of lower limbs by age groups for Albanian SO athletes

Descriptive Statistics					
Age Category (2yrs)	N	Minimum	Maximum	Mean	Std. Deviation
5-6 years. Single Leg Stance Eyes Close/Right	3	4.3	7.3	**5.5**	1.6
Single Leg Stance Eyes Close/ Left	3	5.8	9.9	**7.3**	2.3
7-8 years. Single Leg Stance Eyes Close/ Right	7	.0	7.4	**1.5**	2.9
Single Leg Stance Eyes Close/ Left	7	.0	6.4	**1.2**	2.4
9-10 yrs. Single Leg Stance Eyes Close/ Right	10	.0	18.5	**7.1**	7.1
Single Leg Stance Eyes Close/ Left	10	.0	19.0	**5.7**	6.8
11-12 yrs. Single Leg Stance Eyes Close/ Right	8	1.0	10.0	**6.1**	3.3
Single Leg Stance Eyes Close/ Left	8	1.0	25.3	**9.1**	7.5
13-14 yrs. Single Leg Stance Eyes Close/Right	23	.0	55.7	**10.4**	14.8
Single Leg Stance Eyes Close/ Left	23	.0	39.1	**9.4**	10.4
15-16 yrs. Single Leg Stance Eyes Close/Right	28	.0	21.2	**6.7**	6.2

	Single Leg Stance Eyes Close/ Left	28	.0	25.0	**7.0**	6.6
17-18 yrs.	Single Leg Stance Eyes Close/Right	9	.0	17.0	**4.9**	5.7
	Single Leg Stance Eyes Close/ Left	9	.0	11.0	**3.3**	3.6
19-20 yrs.	Single Leg Stance Eyes Close/ Right	6	.0	7.0	**2.8**	2.6
	Single Leg Stance Eyes Close/ Left	6	.0	6.9	**3.1**	3.0
21+ yrs.	Single Leg Stance Eyes Close/ Right	8	1.0	20.0	**6.6**	6.3
	Single Leg Stance Eyes Close/ Left	8	.5	12.5	**4.9**	4.6

Facts:

From the obtained results we conclude that the age group that has the best balance performance in the standing test with one leg high right/left, eyes closed is the age group 13-14 years old, while the age group that has the worst performance is age group 7-8 years.

The same values of standing with the right leg up or left and eyes closed are reported for athletes in the age groups of 7-8 years, 15-16 years, 17-18 years and 19-20 years.

If we refer to other age groups such as 9-10 years, 13-14 years and 21+ years we will see a better performance in standing with the right leg up and eyes closed versus the standing test with one left leg up and eyes closed.

Regarding the age group 5-6 years and 11-12 years, we conclude that the athletes will have a better performance in standing with the left leg up and eyes closed compared to the test of standing with one right leg up, eyes closed.

Table no. 14 shows the average values and the standard deviation (minimum and maximum value) of the balance tests with eyes closed and the right/left leg up according to age groups for male SOA athletes. Mean and standard deviation of the blindfold balance test for boys: right/left leg for the age group 5-6 are 5.5 sec (SD 1.6)/7.3 sec (SD 2.3), the age group 7-8 are 1.5 sec (DS 3.3)/1.3 sec (DS 2.9), 9-10 year olds are 9.3 sec (DS 13.1)/2.3 sec (DS 3.3), 11-12 year olds are 7.1 sec (DS 3.3)/10.2 sec (DS 10.3) , the 13-14 age group are 13.3 sec (DS 16.5)/9.1 sec (DS 8.6), the 15-16 age group are 6.6 sec (DS 6.6)/6.2 sec (DS 6.4), the 17-18 age group are 5.3 sec (DS 5.9)/3.2 sec (DS 3.8), the 19-20 age group is 2.8 sec (DS 2.9)/3.4 sec (DS 3.2) and for the +21 age group the average and standard deviation are 7.3 sec (DS 6.9)/5.4 sec (DS 5).

Table 14Descriptive statistics for balance (single leg/ eyes close) of lower limbs by age groups for Albanian SO athletes' boys

Age Category (2yrs)	Gender		N	Minimum	Maximum	Mean	Std. Deviation
5-6 years.	Boys	Single Leg Stance Eyes Close/ Right	3	4.3	7.3	**5.5**	1.6
		Single Leg Stance Eyes Close/ Left	3	5.8	9.9	**7.3**	2.3
7-8 years.	Boys	Single Leg Stance Eyes Close/Right	5	.0	7.4	**1.5**	3.3
		Single Leg Stance Eyes Close/ Left	5	.0	6.4	**1.3**	2.9
9-10 yrs.	Boys	Single Leg Stance Eyes Close/Right	2	.0	18.5	**9.3**	13.1
		Single Leg Stance Eyes Close/ Left	2	.0	4.6	**2.3**	3.3
11-12 yrs.	Boys	Single Leg Stance Eyes Close/ Right	4	3.7	10.0	**7.1**	3.3
		Single Leg Stance Eyes Close/ Left	4	2.0	25.3	**10.2**	10.3
13-14 yrs.	Boys	Single Leg Stance Eyes Close/ Right	16	2.0	55.7	**13.3**	16.5
		Single Leg Stance Eyes Close/ Left	16	1.0	30.0	**9.1**	8.6
15-16 yrs.	Boys	Single Leg Stance Eyes Close/Right	20	.0	21.2	**6.6**	6.6
		Single Leg Stance Eyes Close/ Left	20	.0	21.3	**6.2**	6.4
17-18 yrs.	Boys	Single Leg Stance Eyes Close/ Right	8	.0	17.0	**5.3**	5.9
		Single Leg Stance Eyes Close/ Left	8	.0	11.0	**3.2**	3.8
19-20 yrs.	Boys	Single Leg Stance Eyes Close/Right	5	.0	7.0	**2.8**	2.9
		Single Leg Stance Eyes Close/ Left	5	.0	6.9	**3.4**	3.2
21+ yrs.	Boys	Single Leg Stance Eyes Close/ Right	6	1.0	20.0	**7.3**	6.9
		Single Leg Stance Eyes Close/ Left	6	1.0	12.5	**5.4**	5.0

Facts:

From the results obtained in boys, we conclude that the age group that has the best balance performance in the standing test with one leg high right/left, eyes closed is the age group 13-14 years old, while the age group that has the worst performance is the age group of 7-8 years.

The same values of standing with the right leg up or left and eyes closed are reported for male athletes in the age groups of 7-8 years, 15-16 years and 19-20 years.

If we refer to other age groups such as 9-10 years, 13-14 years, 17-18 years and 21+ years we will see a better performance in standing with the right leg up and eyes closed compared to the standing test with one left leg high, eyes closed.

Table no. 1 5 shows the average values and the standard deviation (minimum and maximum value) of the balance tests with eyes closed and right/left leg up according to age groups for SOA female athletes. The mean and standard deviation of the blindfold balance test for female athletes: right/left leg for the 5-6 age group are -, the 7-8 age group are 1.6 sec (DS 2.3)/1.1 sec (DS 1.6), age group 9-10 years old are 6.5 sec (DS 6.2)/6.6 sec (DS 7.4), age group 11-12 years old are 5.2 sec (DS 3.5)/7.9 sec (DS 4.7), age group 13-14 years old are 3.7 sec (DS 7.2)/9.9 sec (DS 14.6), the 15-16 age group are 7.1 sec (DS 5.6)/9 sec (DS 7.1), the 17-18 age group are 2 sec (DS -)/4 sec (DS -), age group 19-20 years old are 3 sec (DS -)/2 sec (DS -) and for the age group +21 years old the mean and standard deviation are 4.5 sec (DS 4.9)/3.3 sec (DS 3.9).

Table 15Descriptive statistics for balance (single leg/ eyes close) of lower limbs by age groups for Albanian SO athletes girls

Age Category (2yrs)	Gender		N	Minimum	Maximum	Mean	Std. Deviation
5-6 years.	Girls	Single Leg Stance Eyes Close/ Right					
		Single Leg Stance Eyes Close/ Left					
7-8 years.	Girls	Single Leg Stance Eyes Close/Right	2	.0	3.3	**1.6**	2.3
		Single Leg Stance Eyes Close/ Left	2	.0	2.2	**1.1**	1.6
9-10 yrs.	Girls	Single Leg Stance Eyes Close/ Right	8	.0	15.8	**6.5**	6.2
		Single Leg Stance Eyes Close/ Left	8	.0	19.0	**6.6**	7.4
11-12 yrs.	Girls	Single Leg Stance Eyes Close/Right	4	1.0	9.0	**5.2**	3.5
		Single Leg Stance Eyes Close/ Left	4	1.0	11.6	**7.9**	4.7
13-14 yrs.	Girls	Single Leg Stance Eyes Close/Right	7	.0	20.0	**3.7**	7.2
		Single Leg Stance Eyes Close/ Left	7	.0	39.1	**9.9**	14.6
15-16 yrs.	Girls	Single Leg Stance Eyes Close/Right	8	1.0	17.4	**7.1**	5.6
		Single Leg Stance Eyes Close/ Left	8	3.0	25.0	**9.0**	7.1
17-18 yrs.	Girls	Single Leg Stance Eyes Close/ Right	1	2.0	2.0	**2.0**	
		Single Leg Stance Eyes Close/ Left	1	4.0	4.0	**4.0**	
19-20 yrs.		Single Leg Stance Eyes Close/ Right	1	3.0	3.0	**3.0**	

	Girls	Single Leg Stance Eyes Close/ Left	1	2.0	2.0	**2.0**	
21+ yrs.	Girls	Single Leg Stance Eyes Close/ Right	2	1.0	8.0	**4.5**	4.9
		Single Leg Stance Eyes Close/ Left	2	.5	6.0	**3.3**	3.9

Facts:

From the results obtained in girls, we conclude that the age group that has the best balance performance in the standing test with one leg high right/left, eyes closed is the age group of 13-14 years, while the age group that has the worst performance is the age group of 7-8 years.

The same values of standing with the right leg up or left and eyes closed are reported for athletes in the age groups 7-8 years, 9-10 years, 19-20 years and 21+ years.

Regarding the age group 11-12 years, 13-14 years, 15-16 years, 17-18 years, we conclude that female athletes have a better performance in standing with the left leg up and eyes closed compared to the one-legged standing test. right up, eyes closed.

Table no. 16 shows the average values and standard deviation (minimum and maximum value) of the timed sit to stand strength test according to age groups for SOA athletes. The mean and standard deviation of the Timed sit to stand strength test for the 5-6 year old age group is 17.4 sec (DS 3.7), the 7-8 year old age group is 23.8 sec (DS 5.7), the 9-10 year old age group is 19 sec (DS 4.2) , the age group 11-12 years old are 18.8 sec (DS 4.7), the age group 13-14 years old are 17.7 sec (DS 5.3), the age group 15-16 years old are 19.4 sec (DS 5.6), the age group 17-18 years old are 18.9 sec (DS 5.7), the age group 19-20 years old are 23.6 sec (DS 5.9) and for the age group +21 years old the average and standard deviation are 22.1 sec (DS 6.2).

Table 16Descriptive statistics for Time Sit to Stand by age groups for Albanian SO athletes

Age Category (2yrs)		N	Minimum	Maximum	Mean	Std. Deviation
5-6 years.	Time Sit to Stand	4	14.0	21.0	**17.4**	3.7
7-8 years.	Time Sit to Stand	8	17.2	36.7	**23.8**	5.7
9-10 yrs.	Time Sit to Stand	11	11.7	24.0	**19.0**	4.2
11-12 yrs.	Time Sit to Stand	9	10.5	25.7	**18.8**	4.7
13-14 yrs.	Time Sit to Stand	24	8.8	29.0	**17.7**	5.3
15-16 yrs.	Time Sit to Stand	26	9.3	30.3	**19.4**	5.6

17-18 yrs.	Time Sit to Stand	12	10.0	29.5	**18.9**	5.7
19-20 yrs.	Time Sit to Stand	7	16.8	35.8	**23.6**	5.9
21+ yrs.	Time Sit to Stand	13	16.5	37.0	**22.1**	6.2

Facts:

In the timed sit to stand test, from the obtained results, we will conclude that the strength performance of athletes from the age group of 7-8 to 13-14 years is improving, and from the age group of 13-14 years and with increasing age, the strength performance of athletes gradually worsens again.

Table no. 17 shows the average values and the standard deviation (minimum and maximum value) of the timed sit to stand strength test according to age groups for male SOA athletes. The mean and standard deviation of the Timed sit to stand strength test boys for the age group 5-6 years 17.4 sec (DS 3.7), the age group 7-8 years are 25.1 sec (DS 6.5), the age group 9-10 years are 23.4 sec (DS 0.8), age group 11-12 years old are 20.3 sec (DS 1.9), age group 13-14 years old are 17.9 sec (DS 5.5), age group 15-16 years old are 19.5 sec (DS 5.3), age group 17-18 years old are 19.5 sec (SD 5.6), the 19-20 age group is 23.8 sec (SD 6.4) and for the +21 age group the average and standard deviation are 23.2 sec (SD 6.8).

Table 17Descriptive statistics for Time Sit to Stand by age groups for Albanian SO athletes' boys

Age Category_(2yrs)	Gender	N	Minimum	Maximum	Mean	Std. Deviation
5-6 years.	Boys Time Sit to Stand	4	14.0	21.0	**17.4**	3.7
7-8 years.	Boys Time Sit to Stand	5	21.4	36.7	**25.1**	6.5
9-10 yrs.	Boys Time Sit to Stand	2	22.8	24.0	**23.4**	0.8
11-12 yrs.	Boys Time Sit to Stand	5	17.4	22.0	**20.3**	1.9
13-14 yrs.	Boys Time Sit to Stand	16	8.8	29.0	**17.9**	5.5
15-16 yrs.	Boys Time Sit to Stand	18	9.3	30.3	**19.5**	5.3
17-18 yrs.	Boys Time Sit to Stand	11	10.0	29.5	**19.5**	5.6
19-20 yrs.	Boys Time Sit to Stand	6	16.8	35.8	**23.8**	6.4
21+ yrs.	Boys Time Sit to Stand	10	16.5	37.0	**23.2**	6.8

Facts:

In the timed sit to stand test, from the results obtained in boys, we conclude that strength performance of athletes from the age group of 7-8 to 13-14 years is improving, and from the age group of 13-14 years and with increasing age the performance of Forces of male athletes gradually worsens again.

From the results we can also conclude that in the age groups 15-16 and 17-18 years old, also in the age groups 19-20 and 21+ years old, male athletes have the same performance level of balance.

Table no. 18 shows the average values and the standard deviation (minimum and maximum value) of the timed sit to stand strength test according to age groups for female SOA athletes. The mean and standard deviation of the Timed sit to stand strength test for girls age group 5-6 years -, age group 7-8 years are 21.6 sec (DS 4.2), age group 9-10 years are 18.1 sec (DS 4), age group 11- 12-year-olds are 16.9 sec (DS 6.8), 13-14-year-olds are 17.4 sec (DS 5.1), 15-16-year-olds are 19.2 sec (DS 6.4), 17-18-year-olds are 11.8 sec (DS -), age group 19-20 year olds are 22.3 sec (SD -) and for the age group +21 years old the mean and standard deviation are 18.8 sec (SD 1.1).

Table 18Descriptive statistics for Time Sit to Stand by age groups for Albanian SO athletes' girls

Age Category_(2yrs)	Gender		N	Minimum	Maximum	Mean	Std. Deviation
5-6 years.	Girls	Time Sit to Stand					
7-8 years.	Girls	Time Sit to Stand	3	17.2	25.7	**21.6**	4.2
9-10 yrs.	Girls	Time Sit to Stand	9	11.7	23.4	**18.1**	4.0
11-12 yrs.	Girls	Time Sit to Stand	4	10.5	25.7	**16.9**	6.8
13-14 yrs.	Girls	Time Sit to Stand	8	11.4	25.2	**17.4**	5.1
15-16 yrs.	Girls	Time Sit to Stand	8	10.6	27.2	**19.2**	6.4
17-18 yrs.	Girls	Time Sit to Stand	1	11.8	11.8	**11.8**	
19-20 yrs.	Girls	Time Sit to Stand	1	22.3	22.3	**22.3**	
21+ yrs.	Girls	Time Sit to Stand	3	17.6	19.9	**18.8**	1.1

Facts:

Among girls, we conclude that the age group has the best strength performance is the age group of 17-18 years.

From the age group of 7-8 years to the age group of 13-14 years, the performance in balance among female athletes is improving and after this age the performance of strength will deteriorate again.

Table no. 19 shows the average values and standard deviation (minimum and maximum value) of the strength test for abdominal muscles Time Partial Sit up according to age groups for SOA athletes. The mean and standard deviation of the Time Partial Sit up strength test for the age group 5-6 years 3.5 times (DS 4.9), the age group 7-8 years are 3.6 times (DS 4.3), the age group 9-10 years are 6.4 times (DS 3.9) , the age group 11-12 years old are 7.3 times (DS 5.0), the age group 13-14 years old are 10.2 times (DS 6.3), the age group 15-16 years old are 10.6 times (DS 6.6), the age group 17-18 years old are 14.3 times (DS 5.3), the age group 19-20 years old are 17.7 times (DS 8.1) and for the age group +21 years old the average and standard deviation are 16 times (DS -).

Table 19Descriptive statistics for Time Partial Sit Ups by age groups for Albanian SO athletes

Age Category_(2yrs)		N	Minimum	Maximum	Mean	Std. Deviation
5-6 years.	Time Partial Sit up	2	.0	7.0	**3.5**	4.9
7-8 years.	Time Partial Sit up	7	.0	12.0	**3.6**	4.3
9-10 yrs.	Time Partial Sit up	8	.0	10.0	**6.4**	3.9
11-12 yrs.	Time Partial Sit up	6	.0	13.0	**7.3**	5.0
13-14 yrs.	Time Partial Sit up	15	2.0	25.0	**10.2**	6.3
15-16 yrs.	Time Partial Sit up	15	.0	25.0	**10.6**	6.6
17-18 yrs.	Time Partial Sit up	9	8.0	25.0	**14.3**	5.3
19-20 yrs.	Time Partial Sit up	6	8.0	28.0	**17.7**	8.1
21+ yrs.	Time Partial Sit up	1	16.0	16.0	**16.0**	.

Facts:

Performance in the Time Partial Sit up test in SOA athletes has a progressive increase in strength from age group to age group.

Table no. 20 shows the average values and the standard deviation (minimum and maximum value) of the strength test for the abdominal muscles Time Partial Sit up according to age groups for male SOA athletes. The mean and standard deviation of the Time Partial Sit up strength test for the age group 5-6 years 3.5 times (DS 4.9), the age group 7-8 years are 1.6 times (DS 2.2), the age group 9-10 years are 6 times (DS 5.7) , the age group 11-12 years old are 8.3 times (DS 6.2), the age group 13-14 years old are 11 times (DS 7.2), the age group 15-

16 years old are 11.2 times (DS 7.4), the age group 17-18 years old are 14.3 times (DS 5.3), the age group 19-20 years old are 17.7 times (DS 8.1) and for the age group +21 years old the average and standard deviation are 16 times (DS -).

Table 20Descriptive statistics for Time Partial Sit Ups by age groups for Albanian SO athletes' boys

Age Category_(2yrs)	Gender		N	Minimum	Maximum	Mean	Std. Deviation
5-6 years.	Boys	Time Partial Sit Ups	2	.0	7.0	**3.5**	4.9
7-8 years.	Boys	Time Partial Sit Ups	5	.0	4.0	**1.6**	2.2
9-10 yrs.	Boys	Time Partial Sit Ups	2	2.0	10.0	**6.0**	5.7
11-12 yrs.	Boys	Time Partial Sit Ups	4	.0	13.0	**8.3**	6.2
13-14 yrs.	Boys	Time Partial Sit Ups	10	2.0	25.0	**11.0**	7.2
15-16 yrs.	Boys	Time Partial Sit Ups	11	.0	25.0	**11.2**	7.4
17-18 yrs.	Boys	Time Partial Sit Ups	9	8.0	25.0	**14.3**	5.3
19-20 yrs.	Boys	Time Partial Sit Ups	6	8.0	28.0	**17.7**	8.1
21+ yrs.	Boys	Time Partial Sit Ups	1	16.0	16.0	**16**	

Facts:

Time Partial Sit up test performance in male SOA athletes has a progressive increase in strength from age group to age group.

Table no. 21 shows the average values and the standard deviation (minimum and maximum value) of the strength test for abdominal muscles Time Partial Sit up according to age groups for SOA female athletes. The mean and standard deviation of the Time Partial Sit up strength test for the age group 5-6 years -, the age group 7-8 years are 8.5 times (DS 4.9), the age group 9-10 years are 6.5 times (DS 3.9), the age group 11-12 years old are 5.5 times (DS 0.7), the 13-14 year old age group are 8.6 times (DS 4.1), the 15-16 year old age group are 9 times (DS 4.2), the 17-18 year old age group are -, the 19-20 year old age group are - and for the +21 age group, the mean and standard deviation are -.

Table 21Descriptive statistics for Time Partial Sit Ups by age groups for Albanian SO athletes' girls

Age Category_(2yrs)	Gender	N	Minimum	Maximum	Mean	Std. Deviation

5-6 years.	Girls	Time Partial Sit Ups					
7-8 years.	Girls	Time Partial Sit Ups	2	5.0	12.0	**8.5**	4.9
9-10 yrs.	Girls	Time Partial Sit Ups	6	.0	10.0	**6.5**	3.9
11-12 yrs.	Girls	Time Partial Sit Ups	2	5.0	6.0	**5.5**	0.7
13-14 yrs.	Girls	Time Partial Sit Ups	5	4.0	14.0	**8.6**	4.1
15-16 yrs.	Girls	Time Partial Sit Ups	4	4.0	13.0	**9.0**	4.2
17-18 yrs.	Girls	Time Partial Sit Ups					
19-20 yrs.	Girls	Time Partial Sit Ups					
21+ yrs.	Girls	Time Partial Sit Ups					

Facts:

In the Time Partial Sit up test in female SOA athletes there is a progressive decrease in strength from the age group 7-8 years to 11-12 years, and with increasing age there is a progressive increase in strength.

Table no. 22 shows the mean values and standard deviation (minimum and maximum value) of the Timed Up and Go (TUG) balance test according to age groups for SOA athletes. Mean and standard deviation of the Timed Up and Go balance test for age group 5-6 7.8 sec (DS 2.5), age group 7-8 are 12.3 sec (SD 3.1), age group 9-10 are 8 sec (DS 2.3) , the age group 11-12 years old are 7.7 sec (DS 2.5), the age group 13-14 years old are 8.5 sec (DS 2.9), the age group 15-16 years old are 9 sec (DS 1.6), the age group 17-18 years old are 9.3 sec (DS 4), the age group 19-20 years old are 8.9 sec (SD 1.6) and for the age group +21 years old the average and standard deviation are 7.1 sec (SD -).

Table 22Descriptive statistics for Balance- Timed Up and Go by age groups for Albanian SO athletes

Age Category_(2yrs)		N	Minimum	Maximum	Mean	Std. Deviation
5-6 years.	Timed Up and Go	3	5.1	10.0	**7.8**	2.5
7-8 years.	Timed Up and Go	6	9.1	16.0	**12.3**	3.1
9-10 yrs.	Timed Up and Go	10	5.6	12.3	**8.0**	2.3
11-12 yrs.	Timed Up and Go	6	5.4	11.9	**7.7**	2.5
13-14 yrs.	Timed Up and Go	13	5.3	15.3	**8.5**	2.9

		N			Mean	
15-16 yrs.	Timed Up and Go	11	6.7	12.8	**9.0**	1.6
17-18 yrs.	Timed Up and Go	5	7.1	16.4	**9.3**	4.0
19-20 yrs.	Timed Up and Go	4	7.1	10.3	**8.9**	1.6
21+ yrs.	Timed Up and Go	1	7.1	7.1	**7.1**	.

Facts:

From the results obtained in the timed up and go test, we conclude that all age groups have the same balance with very small changes. Only 7-8-year olds are the worst performing age group, and 21+ age group are the best performing.

Table no. 23 shows the mean values and the standard deviation (minimum and maximum value) of the Timed Up and Go (TUG) balance test according to age groups for male SOA athletes. The mean and standard deviation of the Timed Up and Go balance test for the age group 5-6 years 7.8 sec (DS 2.5), the age group 7-8 years are 11.3 seconds (DS 3.1), the age group 9-10 years are 8.6 seconds (DS 2.2) , the age group 11-12 years old are 7.2 sec (DS 2), the age group 13-14 years old are 7.8 sec (DS 2.1), the age group 15-16 years old are 9 sec (DS 1.9), the age group 17-18 years old are 9.3 sec (DS 4), the age group 19-20 years old are 8.9 sec (SD 1.6) and for the age group +21 years old the average and standard deviation are 7.1 sec (SD -).

Table 23Descriptive statistics for Balance- Timed Up and Go by age groups for Albanian SO athletes' boys

Age_Category_2yrs	Gender		N	Minimum	Maximum	Mean	Std. Deviation
5-6 years.	Boys	Timed Up and Go	3	5.1	10.0	**7.8**	2.5
7-8 years.	Boys	Timed Up and Go	4	9.1	15.8	**11.3**	3.1
9-10 yrs.	Boys	Timed Up and Go	2	7.0	10.2	**8.6**	2.2
11-12 yrs.	Boys	Timed Up and Go	3	5.4	9.4	**7.2**	2.0
13-14 yrs.	Boys	Timed Up and Go	8	5.3	11.3	**7.8**	2.1
15-16 yrs.	Boys	Timed Up and Go	7	6.7	12.8	**9.0**	1.9
17-18 yrs.	Boys	Timed Up and Go	5	7.1	16.4	**9.3**	4.0
19-20 yrs.	Boys	Timed Up and Go	4	7.1	10.3	**8.9**	1.6
21+ yrs.	Boys	Timed Up and Go	1	7.1	7.1	**7.1**	.

Facts:

Table no. 24 shows the average values and standard deviation (minimum and maximum value) of the Timed Up and Go (TUG) balance test according to age groups for SOA female athletes. The mean and standard deviation of the balance test for the age group 5-6 years -, the age group 7-8 years are 14.5 seconds (SD 2.1), the age group 9-10 years are 7.9 seconds (SD 2.5), the age group 11-12 years are 8.2 seconds (DS 3.2), the age group 13-14 years old are 9.6 sec (DS 3.9), the age group 15-16 years old are 9 sec (DS 1.2), the age group 17-18 years old are -, the age group 19-20 years old are - and for the age group + 21 years old, the mean and standard deviation are -.

Table 24Descriptive statistics for Balance- Timed Up and Go by age groups for Albanian SO athletes' girls

Age_Category_2yrs	Gender		N	Minimum	Maximum	Mean	Std. Deviation
5-6 years.	Girls	Timed Up and Go					
7-8 years.	Girls	Timed Up and Go	2	13.0	16.0	**14.5**	2.1
9-10 yrs.	Girls	Timed Up and Go	8	5.6	12.3	**7.9**	2.5
11-12 yrs.	Girls	Timed Up and Go	3	6.2	11.9	**8.2**	3.2
13-14 yrs.	Girls	Timed Up and Go	5	5.9	15.3	**9.6**	3.9
15-16 yrs.	Girls	Timed Up and Go	4	7.3	10.1	**9.0**	1.2
17-18 yrs.	Girls	Timed Up and Go					
19-20 yrs.	Girls	Timed Up and Go					
21+ yrs.	Girls	Timed Up and Go					

Facts:

Table no. 25 shows the average values and the standard deviation (minimum and maximum value) of the strength test, which was measured by the Handgrip test with the right/left hand according to age groups for SOA athletes. The mean and standard deviation of the right-hand

strength test: for the 5-6-year-old age group is 7 kg (SD 1.3), the 7-8-year-old age group is 3.7 kg (SD 0.8), the 9-10-year-old age group is 11.1 kg (SD 6.7), the age group 11-12 years old are 11.8 kg (DS 3.4), the age group 13-14 years old are 17 kg (DS 7.3), the age group 15-16 years old are 14 kg (DS 11.9), the age group 17-18 years old are 25 kg (DS 14.4), the 19-20 age group is 23.6 kg (DS 9.4) and for the +21 age group the average and standard deviation are 47.4 kg (DS -). While the mean and standard deviation with the left hand: for the age group 5-6 years are 9.3 kg (SD 5.6), the age group 7-8 years are 4.5 kg (SD 2.5), the age group 9-10 years are 10.8 kg (SD 6.9), age group 11-12 years old are 12.4 kg (DS 3.3), age group 13-14 years old are 17.1 kg (DS 6.8), age group 15-16 years old are 12.3 kg (DS 11.9), age group 17-18 years old are 27.3 kg (DS 13.3), the age group 19-20 years old are 26.5 kg (SD 12.4) and for the age group +21 years old the average and standard deviation are 47.4 kg (SD -).

Table 25Descriptive statistics for Handgrip by age groups for Albanian SO athletes

Age_Category_2yrs		N	Minimum	Maximum	Mean	Std. Deviation
5-6 years.	Handgrip/ Right	3	5.5	7.8	**7.0**	1.3
	Handgrip/Left	3	4.5	15.5	**9.3**	5.6
7-8 years.	Handgrip/ Right	7	2.4	5.0	**3.7**	0.8
	Handgrip/Left	7	.0	8.1	**4.5**	2.5
9-10 yrs.	Handgrip/Right	10	1.7	18.3	**11.1**	6.7
	Handgrip/Left	10	1.5	20.5	**10.8**	6.9
11-12 yrs.	Handgrip/Right	7	7.6	16.5	**11.8**	3.4
	Handgrip/Left	7	7.6	16.0	**12.4**	3.3
13-14 yrs.	Handgrip/Right	15	3.0	29.8	**17.0**	7.3
	Handgrip/Left	15	6.9	27.1	**17.1**	6.8
15-16 yrs.	Handgrip/Right	12	2.4	46.0	**14.0**	11.9
	Handgrip/Left	12	1.9	44.7	**12.3**	11.9
17-18 yrs	Handgrip/Right	5	6.1	44.0	**25.0**	14.4
	Handgrip/Left	5	12.8	46.1	**27.3**	13.3
19-20 yrs.	Handgrip/Right	7	13.1	40.3	**23.6**	9.4
	Handgrip/Left	7	13.1	51.3	**26.5**	12.4
21+ yrs.	Handgrip/Right	1	47.4	47.4	**47.4**	
	Handgrip/Left	1	47.4	47.4	**47.4**	

Table no. 26 shows the mean values and the standard deviation (minimum and maximum value) of the strength test, which was measured by the Handgrip test with the right/left hand according to age groups for male SOA athletes. The mean and standard deviation of the right-hand strength test: for the 5-6-year-old age group is 7 kg (SD 1.3), the 7-8-year-old age group is 3.4 kg (SD 0.6), the 9-10-year-old age group is 9.3 kg (SD 10.6), age group 11-12 years old are 13.2 kg (DS 4.7), age group 13-14 years old are 18.9 kg (DS 6.1), age group 15-16 years old are 14.7 kg (DS 13.8), age group 17-18 years old are 25 kg (DS 14.4), the 19-20 age group is 23.6 kg (DS 9.4) and for the +21 age group the average and standard deviation are 47.4 kg (DS -). While the mean and standard deviation with the left hand: for the age group 5-6 years are 9.3 kg (SD 5.6), the age group 7-8 years are 3.9 kg (SD 2.4), the age group 9-10 years are 9.1 kg (SD 10.6), age group 11-12 years are 13 kg (DS 3.8), age group 13-14 years are 20.7 kg (DS 5), age group 15-16 years are 13.3 kg (DS 13.7), age group 17-18 years are 27.3 kg (DS 13.3), the age group 19-20 years old are 26.5 kg (SD 12.4) and for the age group +21 years old the average and standard deviation are 47.4 kg (SD -).

Table 26Descriptive statistics for Handgrip by age groups for Albanian SO athletes' boys

Age Category (2yrs)	Gender		N	Minimum	Maximum	Mean	Std. Deviation
5-6 years.	Boys	Handgrip/ Right	3	5.5	7.8	**7.0**	1.3
		Handgrip/Left	3	4.5	15.5	**9.3**	5.6
7-8 years.	Boys	Handgrip/Right	5	2.4	4.2	**3.4**	0.6
		Handgrip/Left	5	.0	6.1	**3.9**	2.4
9-10 yrs.	Boys	Handgrip/ Right	2	1.8	16.8	**9.3**	10.6

Age group	Gender	Test	N	Min	Max	Mean	SD
		Handgrip/Left	2	1.6	16.6	**9.1**	10.6
11-12 yrs.	Boys	Handgrip/ Right	3	7.8	16.5	**13.2**	4.7
		Handgrip/Left	3	8.7	16.0	**13.0**	3.8
13-14 yrs.	Boys	Handgrip/ Right	8	9.7	29.8	**18.9**	6.1
		Handgrip/Left	8	12.4	27.1	**20.7**	5.0
15-16 yrs.	Boys	Handgrip/ Right	8	2.4	46.0	**14.7**	13.8
		Handgrip/Left	8	2.3	44.7	**13.3**	13.7
17-18 yrs	Boys	Handgrip/Right	5	6.1	44.0	**25.0**	14.4
		Handgrip/Left	5	12.8	46.1	**27.3**	13.3
19-20 yrs.	Boys	Handgrip/ Right	7	13.1	40.3	**23.6**	9.4
		Handgrip/Left	7	13.1	51.3	**26.5**	12.4
21+ yrs.	Boys	Handgrip/ Right	1	47.4	47.4	**47.4**	.
		Handgrip/Left	1	47.4	47.4	**47.4**	.

Facts:

In the handgrip test for boys, we conclude that we have the same strength for each age group, with the exception of the age groups 5-6 years old, 13-14 years old, 17-18 years old and 19-20 years old, as we will notice that there is a difference between the hand of right and left.

In the age group 5-6, 13-14, 17-18 and 19-20 years old, we will see that male athletes have greater strength with their left hand.

Table no. 27 shows the average values and the standard deviation (minimum and maximum value) of the strength test, where it was measured by the Handgrip test with the right/left hand according to the age groups for female SOA athletes. The mean and standard deviation of the right hand strength test: for the age group 5-6 years old are - kg (DS -), the age group 7-8 years old are 4.6 kg (DS 0.6), the age group 9-10 years old are 11.5 kg (DS 6.3), the 11-12-year-old age group is 10.7 kg (DS 2.1), the 13-14-year-old age group is 14.8 kg (8.4), the 15-16-year-old age group is 12.4 kg (DS 8.3), the 17-18-year-old age group is - kg (DS -), the age group 19-20 years old are - kg (DS -) and for the age group +21 years old the average and standard deviation are - kg (DS -). While the mean and standard deviation with the left hand: for the age group 5-6 years old are - kg (DS -), the age group 7-8 years old are 6.2 kg (DS 2.7), the age group 9-10 years old are 11.3 kg (DS 6.7), the age group 11-12 years old are 11.9 kg (DS 3.3), the age group 13-14 years old are 13 kg (DS 6.6), the age group 15-16 years old are 10.2 kg

(DS 8.3), the age group 17-18 years old are - kg (DS -), the age group 19-20 years old are - kg (DS -) and for the age group +21 years old the average and standard deviation are - kg (DS -).

Table 27Descriptive statistics for Handgrip by age groups for Albanian SO athletes' girls

Age Category (2yrs)	Gender		N	Minimum	Maximum	Mean	Std. Deviation
5-6 years.	Girls	Handgrip/ Right					
		Handgrip/Left					
7-8 years.	Girls	Handgrip/ Right	2	4.1	5.0	**4.6**	0.6
		Handgrip/Left	2	4.3	8.1	**6.2**	2.7
9-10 yrs.	Girls	Handgrip/ Right	8	1.7	18.3	**11.5**	6.3
		Handgrip/Left	8	1.5	20.5	**11.3**	6.7
11-12 yrs.	Girls	Handgrip/Right	4	7.6	12.5	**10.7**	2.1
		Handgrip/Left	4	7.6	15.0	**11.9**	3.3
13-14 yrs.	Girls	Handgrip/Right	7	3.0	29.8	**14.8**	8.4
		Handgrip/Left	7	6.9	24.3	**13.0**	6.6
15-16 yrs.	Girls	Handgrip/Right	4	4.0	20.2	**12.4**	8.3
		Handgrip/Left	4	1.9	18.7	**10.2**	8.3
17-18 yrs	Girls	Handgrip/Right					
		Handgrip/Left					
19-20 yrs.	Girls	Handgrip/Right					
		Handgrip/Left					
21+ yrs.	Girls	Handgrip/ Right					
		Handgrip/Left					

Facts:

In the handgrip test for girls, we conclude that we have the same strength for each age group, with the exception of the 7-8-year-old and 15-16-year-old age groups, as we will notice that there will be a difference between the right and left hand. At the age of 15-16 years, we will see that female athletes have greater strength with their right hand, while the opposite happens in the age group of 7-8 years, where female athletes have greater strength with their left hand.

Conclusion

Athletes 2017- 2023 period

- From the age group of 5-6 years to the age group of 17-18 years, there is a progressive increase in body weight and waist circumference in SOA athletes. From the flexibility test result, we notice that all age groups 5-6, 7-8, 9-10 and 21+ report the same flexibility performance as for right hand up/left hand down and vice versa.

- In the age group 11-12, 13-14, 15-16, 17-18 and 19-20 years a better flexibility performance is reported for right hand up/left hand down. From the obtained results we conclude that the age group that has the best balance performance in the standing test with one leg high right/left, eyes open is the age group 9-10 years old, while the age group that has the worst performance is the age group 7-8 years old.

- From the obtained results we conclude that the age group that has the best balance performance in the standing test with one leg high right/left, eyes closed is the age group 13-14 years old, while the age group that has the worst performance is age group 7-8 years. The same values of standing with the right leg up or left and eyes closed are reported for athletes in the age groups of 7-8 years, 15-16 years, 17-18 years and 19-20 years.

- In the timed sit to stand test, from the obtained results, we will conclude that the strength performance of athletes from the age group of 7-8 to 13-14 years is improving, and from the age group of 13-14 years and with increasing age, the strength performance of athletes gradually worsens again.

- Performance in the Time Partial Sit up test in SOA athletes has a progressive increase in strength from age group to age group.

- From the results obtained in the timed up and go test, we conclude that all age groups have the same balance with very small changes. Only 7-8-year olds are the worst performing age group, and 21+ age group are the best performing.

- In the handgrip test, we conclude that we have the same strength for each age group, with the exception of the age groups 5-6 years old, 15-16 years old, 17-18 years old and 19-20 years old, as we will notice that there is a difference between the right hand and left. At the age of 15-16 years, we will see that athletes have greater strength with their right hand, while the opposite happens in the age groups of 5-6 years, 17-18 years and 19-20 years, where athletes have greater strength with their right hand. left.

Athletes 2017- 2023 period by gender

- From the results of the flexibility test in boys, we notice that all age groups 5-6, 7-8, 9-10 and 21+ report the same performance as for right hand up/left hand down and vice versa while from the results of the flexibility test in girls, we notice that all age groups 9-10, 11-12, 15-16, 17-18, 19-20 and 21+ report the same flexibility performance as for the upper right hand/ left down and vice versa.

- From the results obtained in boys we conclude that the age group that has the best balance performance in the standing test with one leg high right/left, eyes open is the age group of 9-10 years, while the age group that has the worst performance is the age group of 7-8 years. The same values of standing with the right leg up or left and eyes open are reported in the age groups 7-8 years, 11-12 years, 13-14 years and 21+ years among girls. If we refer to other age groups such as 15-16 years old, 17-18 years old and 19-20 years old, we will see a better performance in standing with the right leg up and eyes open compared to the test of standing with one left leg up, eyes open.
- From the results obtained in boys, we conclude that the age group that has the best balance performance in the standing test with one leg high right/left, eyes closed is the age group 13-14 years old, while the age group that has the worst performance is the age group of 7-8 years. From the results obtained in girls, we conclude that the age group that has the best balance performance in the standing test with one leg high right/left, eyes closed is the age group of 13-14 years, while the age group that has the worst performance is the age group of 7-8 years.
- In the timed sit to stand test, from the results obtained in boys, we conclude that strength performance of athletes from the age group of 7-8 to 13-14 years is improving, and from the age group of 13-14 years and with increasing age the performance of Forces of male athletes gradually worsens again. Among girls, we conclude that the age group has the best strength performance is the age group of 17-18 years.
- Time Partial Sit up test performance in male SOA athletes has a progressive increase in strength from age group to age group while in female SOA athletes there is a progressive decrease in strength from the age group 7-8 years to 11-12 years, and with increasing age there is a progressive increase in strength.
- From the results obtained in the timed up and go test for boys, we conclude that all age groups have the same balance with very small changes. Only 7-8-year olds make a difference, having the worst performance of the age groups, while the best performing age group is 11-12 and 21+ years old. The timed up and go test in female athletes with the best balance performance is the age group 9-10 years, while the age group with the weakest balance performance is the age group 7-8 years.
- In the handgrip test for boys, we conclude that we have the same strength for each age group, with the exception of the age groups 5-6 years old, 13-14 years old, 17-18 years old and 19-20 years old, as we will notice that there is a difference between the hand of right and left. In the handgrip test for girls, we conclude that we have the same strength for each age group, with the exception of the 7-8-year-old and 15-16-year-old age groups, as we will notice that there will be a difference between the right and left hand.