

Sample-Proceeding

Title; 10.5 point

Differences in fat-free mass and muscle thicknesses at various sites according to performance level among judo athletes.

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Purpose

The purpose of this study was to investigate the differences in fat free mass and the thicknesses of various muscles among judo athletes of different performance levels. Our hypotheses were that elite judo athletes have larger fat free mass and thicker upper body muscles than judo athletes of lower performance level. í í í í í í í í í í í í í í í ..

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Method

The subjects were 69 male judo athletes of three different performance levels. Group A (n=13) was composed of judo athletes who had participated in the Olympic Games or Asian Games. Groups B (n=21) and C (n=35) were composed of judo athletes at a university who did or did not participate in intercollegiate competitions (including qualifying matches for intercollegiate competitions), respectively. í í í í í í í í í í í í í í í .

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Results and Discussion

In this study, the fat free mass of Group A was significantly larger than that of Group C (Table 1). It has been reported that in powerlifting, a sport that requires a large amount of strength, performance is strongly and positively associated with fat-free mass [2,3]. í í í í í í í í í ..

Notes on writing:

- All submitted proceedings must be written in English.
- Each proceeding should not exceed 2 pages (A4 size) including the title, author name, professional affiliation of author(s), e-mail address and body text.
- Figures and tables can be included if needed.
- All text must be typed in Times New Roman font, single-spaced.
- The top, bottom, left and right margins must each be 30mm.
- The reference list must be in alphabetical order and numbered.
- All references must appear in the text.
- The written style of proceeding should follow the form of the international journal, "Gait & Posture".

Table 1. Height, body weight, fat free mass and normalized muscle thicknesses at nine sites in the body.

	Height (cm)	Body weight (kg)	FFM (kg)	Forearm	Elbow flexor	Elbow extensor	Knee extensor	Knee flexor	Dorsiflexor	Plantar flexor	Abdomen	Subscapula
Group A	174.4±8	90.2±22	74.9±13*	1.6±0.1	2.2±0.2* ^Ä	2.8±0.4*	3.5±0.4	3.9±0.9	1.9±0.1	4.5±0.4	1.1±0.1	1.8±0.3
Group B	174.7±6	85.3±19	69.9±9	1.6±0.1	2.0±0.2	2.6±0.3	3.4±0.3	3.6±0.4	1.8±0.1	4.2±0.3	1.1±0.2	1.8±0.3
Group C	172.2±6	84.1±19	66.5±8	1.6±0.2	2.0±0.3	2.5±0.4	3.5±0.5	3.6±0.5	1.8±0.2	4.3±0.4	1.1±0.2	1.7±0.3

Muscle thicknesses were normalized by height and multiplied by 100.

FFM, fat free mass. Values are mean±standard deviation.

^ÄSignificant difference between Groups A and B.

*Significant difference between Groups A and C.

References

1. Abe T, Kawakami Y, Kondo M, Kawakami Y, Fukunaga T. Prediction equations for body composition of Japanese adults by B-mode ultrasound. Am J Hum Biol. 6:161-170. 1994.
2. Brozek J, Grande F, Anderson JT, Keys A. Densitometric analysis of body composition: revision of some quantitative assumption. Ann NY Acad Sci. 110:113-140. 1963.