

Aerobic Fitness

Cardiovascular endurance, or aerobic fitness, is the ability to exercise continuously for extended periods without tiring. A person’s aerobic fitness level is dependent upon the amount of oxygen that can be transported by the body to the working muscles and the efficiency of the muscles to utilise the oxygen.

Multistage Fitness Test

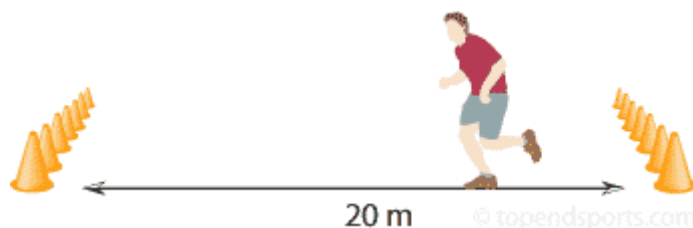
This test involves running between two lines 20m apart in time to recorded beeps. The time between recorded beeps decrease each minute (level). The initial running speed is 8.5 km/h, which increases by 0.5 km/h each minute.

The athlete is required to run as long as possible until they cannot cover the 20m distance in the required time. This test means the athlete must run to their **MAXIMUM CAPACITY**.

The Multistage Fitness Test will provide an estimated VO2 max, a minimum standard has been set for inclusion in the England Programme.

MSFT Rating System

Male	ml/kg/min	Female	ml/kg/min	RATING
Level 8 or less	< 41	Level 6 - 8 or less	< 36	VERY POOR
Level 8 - 1 to Level 9	41 – 43	Level 7 to Level 8	36 – 40	POOR
Level 9-1 to Level 10	44 – 46	Level 8 – 1 to Level 9	41 – 43	AVERAGE
Level 10 - 1 to Level 11	47 – 50	Level 9 - 1 to Level 10	44 – 46	GOOD
Level 11 – 1 to Level 12 - 4	51 - 54	Level 10 to 1 to Level 11	47 – 50	EXCELLENT
Level 12 – 4 +	55 +	Level 11 +	51 +	ELITE



Upper Body Strength Endurance

Strength is an important factor for Elite performance. A lack of strength will inhibit the ability to train at a high intensity, develop technique and impose a physical presence in high level competition.

The Press Up Test has been designed to record a basic measure of the Judoka's upper body strength and the ability to repeat a multitude of press ups to failure (strength endurance).

The Press Up Test involves the Judoka executing a single press up to each bleep at the current level ie level 1 = 1 press, level 8 = 8 press ups etc. At the end of each level, the Judoka returns to a standing position and resumes the press up position at the start of the announced level.

A Judoka 'fails' the test when they can no longer make a press up or their technique fails that they are no longer executing the press up correctly.

Technique – the Judoka must start in the press up position with their arms straight, body straight and feet shoulder width apart. On each bleep, the Judoka must bend their arms to a 90° degree position and return back to the starting position keeping their body in a straight line.

Press Up Test Rating System

Male	Total Press Ups	Female	Total Press Ups	RATING
Level 9.4 or Less	<40	Level 8 or less	<28	VERY POOR
Level 9.5 to Level 10.4	41 – 49	Level 8.1 to Level 8.8	29 – 36	POOR
Level 10.5 to Level 11.4	50 - 59	Level 9.1 to Level 9.4	37 – 40	AVERAGE
Level 11.5 to Level 12.4	60 – 70	Level 9.5 to Level 10.4	41 – 49	GOOD
Level 12.5 to Level 13.4	71 – 82	Level 10.5 to Level 11.4	50 – 59	EXCELLENT
Level 13.5 +	83+	Level 11.5 +	60+	ELITE



Flexibility

A Judoka requires a high level of agility and flexibility and stretching is important for injury prevention and improving strength.

Sit & Reach Test

Basic test for measuring flexibility in the hamstrings and lower back.

Rating	MALE (cm)	FEMALE (cm)
Very Poor	< 24	< 26
Poor	24 – 28	26 – 31
Average	29 – 33	32 – 36
Good	34 – 39	37 – 42
Excellent	40 +	43 +

The Sit and Reach Test is conducted as follows:

- The athlete **warms up** for 10 minutes and then removes their shoes
- The assistant secures the ruler to the box top with the tape so that the front edge of the box lines up with the 23cm (9 inches) mark on the ruler and the zero end of the ruler points towards the athlete
- The athlete sits on the floor with their legs fully extended with the bottom of their bare feet against the box
- The athlete places one hand on top of the other, slowly bends forward and reaches along the top of the ruler as far as possible holding the stretch for two seconds
- The assistant records the distance reached by the athlete's finger tips
- The athlete performs the test three times
- The assistant calculates and records the average of the three distances and uses this value to assess the athlete's performance



Lower Body Power

A Judoka requires explosive lower body power.

Standing Jump

The Judoka is required to squat down and jump as high as possible. The height that a Judoka can jump determines their lower body power. The Judoka will be given three attempts and the best height recorded.

Rating	MALE (cm)	FEMALE (cm)
Very Poor	<39	<29
Poor	40 – 49.9	<30 – 39.9
Average	50 – 55.9	40 – 45.9
Good	56 – 59.9	46 – 50.9
Excellent	60 – 65.9	51 – 55.9
Elite	+70cm	+60cm

