

Fitness targets for Australian Cadet Judo athletes

Introduction

In order to prepare your body for elite judo competition you must train consistently, and part of that training must be focused on developing the physical attributes that underpin successful performance in elite judo athletes; Weight management, Aerobic fitness, Upper body strength and power, Lower body strength and power and Core strength.

To maintain motivation and ensure your training is being effective, it is important to set yourself goals and track your progression towards these goals.

In this document are a series of tests you can use to check your progress with Gold, Silver and Bronze targets that are based on the standards achieved by elite Australian and International cadet judo athletes. **The Bronze targets are the minimum standards that you should be attaining in order to consider yourself a high-performance Australian judo athlete.**

How to use this document

Use the information in this document to check the effectiveness of your training for developing the physical qualities necessary for Judo performance.

Use Tables 1 and 2 as guides to managing your weight effectively.

Use Tables 3 and 4 to check your progression across of a range of important physical qualities. Complete the tests described in Table 4 every 6-8 weeks. Record your results each time and discuss with your coach how you can make improvements. An appropriate training program for a high performance cadet athlete includes Judo training, a progressive strength training program using gym equipment and some off-mat high-intensity conditioning sessions such as rowing, running, swimming, cycling.

Weight management

Typically, athletes who compete in weight-division sports, like Judo, allow their weight to fluctuate a little and may generally weigh heavier than their competition weight. This is perfectly OK. However, it is important that athletes are able to adjust their body mass in a controlled and gradual manner so that they are not resorting to extreme weight loss methods (e.g. skipping meals, excessive dehydration, vomiting, sauna, etc.).

It is easier to manage your weight prior to competition if you keep your body weight close to competition weight all year round. There are no Gold, Silver and Bronze targets for this assessment. All cadet athletes should maintain their weight within 5% of their weight division through the competition season (i.e. January to November). Use the following tables to understand more about your weight management:

Tables 1 and 2: Judo Australia weight management chart for Female and Male cadet athletes

Female						
Category	0%	1%	2%	3%	4%	5+%
40 kg	40	40.40	40.80	41.20	41.60	42.00
44 kg	44	44.44	44.88	45.32	45.76	46.20
48 kg	48	48.48	48.96	49.44	49.92	50.40
52 kg	52	52.52	53.04	53.56	54.08	54.60
57 kg	57	57.57	58.14	58.71	59.28	59.85
63 kg	63	63.63	64.26	64.89	65.52	66.15
70 kg	70	70.70	71.40	72.10	72.80	73.50
78 kg	78	78.78	79.56	80.34	81.12	81.90
Over 78 kg	n/a	n/a	n/a	n/a	n/a	n/a
Male						
Category	0%	1%	2%	3%	4%	5+%
50 kg	50	50.50	51.00	51.50	52.00	52.50
55 kg	55	55.55	56.10	56.65	57.20	57.75
60 kg	60	60.60	61.20	61.80	62.40	63.00
66 kg	66	66.66	67.32	67.98	68.64	69.30
73 kg	73	73.73	74.46	75.19	75.92	76.65
81 kg	81	81.81	82.62	83.43	84.24	85.05
90 kg	90	90.90	91.80	92.70	93.60	94.50
100 kg	100	101.00	102.00	103.00	104.00	105.00
Over 100 kg	n/a	n/a	n/a	n/a	n/a	n/a

Yellow	Opportunity to increase your muscle mass (and therefore strength) whilst still competing in same division
Green	Optimal zone, keep your weight in this area during competition season
Red	Warning area. Your weight should not exceed >5% over your division in the competition season (i.e. January to November). If you cannot reduce weight through healthy eating and regular exercise, consider weight division change.

Table 3. Bronze, Silver and Gold fitness targets for Australian Cadet Judo Athletes

Aerobic Fitness

Cooper 12-minute run test**	Males	Females
Gold	3200 metres	3000 metres
Silver	2800 metres	2600 metres
Bronze	2600 metres	2400 metres

Special Judo Fitness test	Males		Females	
	Total throws	Index	Total Throws	Index
Gold	32	<11.0	30	<11.0
Silver	30	<12.0	27	<12.0
Bronze	27	<13.0	25	<13.0

Upper Body Strength and Power

Judogi chinups	Males	Females
Gold	30	20
Silver	10	7
Bronze	5	3

Bench Press: 3RM	Males	Females
Gold	1.2kg x body mass	1.0kg x body mass
Silver	1.1kg x body mass	0.9kg x body mass
Bronze	1.0kg x body mass	0.8kg x body mass

Multistage Fitness Test**	Males	Females
Gold	Level 14 or above	Level 12.5 or above
Silver	Level 12.5	Level 11
Bronze	Level 11	Level 9

** Choose only one of these tests , depending on equipment availability

Push-ups	Males	Females
Gold	60	60
Silver	45	45
Bronze	30	30

Bench Pull: 3RM	Males	Females
Gold	1.2kg x body mass	1.0kg x body mass
Silver	1.1kg x body mass	0.9kg x body mass
Bronze	1.0kg x body mass	0.8kg x body mass

Table 3 (cont.). Bronze, Silver and Gold fitness targets for Australian Cadet Judo Athletes

Lower Body Strength and Power

Vertical Jump ††	Males	Females
Gold	75 cm	55 cm
Silver	60 cm	45 cm
Bronze	45 cm	35 cm

Back Squat: 3RM	Males	Females
Gold	2.0kg x body mass	1.5kg x body mass
Silver	1.7kg x body mass	1.3kg x body mass
Bronze	1.5kg x body mass	1.0kg x body mass

Core Strength

Plank	Males	Females
Gold	6 minutes	6 minutes
Silver	4 minutes	4 minutes
Bronze	2.5 minutes	2.5 minutes

Standing Long Jump ††	Males	Females
Gold	2.63 metres	2.26 metres
Silver	2.35 metres	2.08 metres
Bronze	2.08 metres	1.89 metres

**** Choose only one of these tests , depending on equipment availability**

Table 4. Physical Fitness Testing procedures for Australian Cadet Judo Athletes

Test Procedures	Description and Resources
Aerobic Fitness	<p>There are two important aspects of aerobic fitness critical to successful judo: Aerobic endurance and repeat-effort ability. You should train to improve both aspects and these can be tested separately.</p>
Multistage Fitness test (also known as beep/bleep test) <i>assesses aerobic endurance</i>	<p>Two tests are available for aerobic endurance and you only need to choose one of these tests to complete, not both. Make the choice based on the facilities you have available. See these videos for test instructions: https://www.youtube.com/watch?v=lroAhVO83il https://www.youtube.com/watch?v=9XgGPULnDxY You can download a free app with the audio for the Multistage fitness test. There are lots of App options. Here is a guide to the features of the best ones: http://www.topendsports.com/testing/products/apps/beep-test.htm</p>
Cooper 12-minute run test <i>assesses aerobic endurance</i>	<p>Two tests are available for aerobic endurance and you only need to choose one of these tests to complete, not both. Make the choice based on the facilities you have available.</p> <p>You need for this tests a space where you can run freely for 12 minutes without sharp turns and that can be measured accurately (e.g. a running track or oval). You will also need a long tape measure. For test procedures, see: http://www.topendsports.com/testing/tests/cooper.htm</p>
Special Judo Fitness test <i>assesses repeat-effort ability</i>	<p>This test simulates the stop/start nature of Judo competition and examines repeat-effort ability, which is an element of your aerobic fitness. You will need 2 partners who are in the same weight division as you. They must stand 6 metres apart. You run between them and throw them with ippon seoi-nage as quickly as you can for 3 periods of effort: 15 seconds, 30 seconds, 30 seconds, each separated by 10 seconds rest. Count the total throws completed (and if you have a heart rate monitor also measure your heart rate immediately after the final 30 seconds of work, then 60 seconds later). You can monitor your progress by calculating total throws and/or calculating the index as shown on this video: https://www.youtube.com/watch?v=jUssMcYYQ60&t=47s</p>
Upper Body Strength and Power	
Judogi Chin-ups	<p>Loop a judogi over the top of a chin-up bar (or other appropriate bar). Take a grip on the lapel on each side of the bar. From a hanging position, with your arms fully outstretched, count how many times consecutively you can lift your body so that your chin is above your handgrip.</p> <p>See this video for example of the technique: https://www.youtube.com/watch?v=-pw78Bj4eXE</p>
Push-ups	<p>Using correct technique, complete as many push-ups as possible at a steady rate without pausing. Test finishes when you are no longer able to complete the pushup with correct technique. It is <u>VERY</u> important to follow the instructions about technique for this push-up test: https://www.youtube.com/watch?v=04cHZF7JRnQ. Males complete the test on their toes, females on their knees.</p>

Table 4 (cont.). Physical Fitness Testing procedures for Australian Cadet Judo Athletes

<p>Bench Press : 3- Repetition maximum (3RM)</p>	<p>Using correct technique for the Bench Press, this is the maximum weight that you can achieve 3 lifts without pause. Bar should touch chest and arms should be straightened fully on each repetition. The targets are shown in kg per kg of your body mass. For example, if you are female weighing 50kg, your silver target would be to be able to complete 3 continuous repetitions of (0.9 x 50) 45kg. This test should only be attempted under supervision, and with a spotter.</p>
<p>Bench Pull: 3- Repetition maximum (3RM)</p>	<p>Using correct technique for the Bench Pull, this is the maximum weight that you can achieve 3 lifts without pause. Bar should touch the underside of the bench and arms should be straightened fully on each repetition. The targets are shown in kg per kg of your body mass. For example, if you are female weighing 50kg, your silver target would be to be able to complete 3 continuous repetitions of (0.9 x 50) 45kg. This test should only be attempted under supervision, and with a spotter.</p>
<p>Lower Body Strength and Power</p>	
<p>Back Squat: 3- Repetition maximum (3RM)</p>	<p>Using correct technique for the Back Squat, this is the maximum weight that you can achieve 3 lifts without pause. One repetition is completed once the thighs have become parallel to the floor during the squat and the athlete has successfully stood up again. The targets are shown in kg per kg of your body mass. For example, if you are female weighing 50kg, your gold target would be to be able to complete 3 continuous repetitions of (1.3 x 50) 65kg. For safety, this test should only be attempted under supervision, and with a skilled spotter and within a squat cage.</p>
<p>Vertical jump</p>	<p>This test measures the height you can jump in a single maximal effort. The result is the difference between your standing reach height and the maximum height you can reach when you jump, so that it is fair to compare athletes of different heights (i.e. jump height (in cm) minus standing reach height (in cm)). For this test you need a specialised piece of equipment called a ‘Vertec’. Alternatively, you can complete the standing long jump with no equipment and it measures the same quality of lower body power. For test procedures, see: https://www.youtube.com/watch?v=85EtdsmFCoY</p>
<p>Standing long jump</p>	<p>This test measures the horizontal distance you can jump in a single maximal effort. This is an alternative to the Vertical jump but requires less equipment. You do not need to do both tests, you can simply the test for which you have the equipment. For this test you need a helper and a tape measure. Stand with your toes behind a line and measure the distance to your toes when you land. For test procedures, see: https://www.youtube.com/watch?v=hSunks_4wIE</p>
<p>Core Strength</p>	
<p>Plank</p>	<p>Measure the time for which you can maintain the plank position without losing posture (shoulders, back, hips) For test procedures, see: https://www.youtube.com/watch?v=kL_NJkCQBg</p>