

PHYSICAL PILLAR

Fitness is a key component to refereeing. The goal is to reach a level and maintain it. Fitness testing is only a measurement to establish a base. Consistency in monitoring and test familiarization is key.

Yo-Yo:

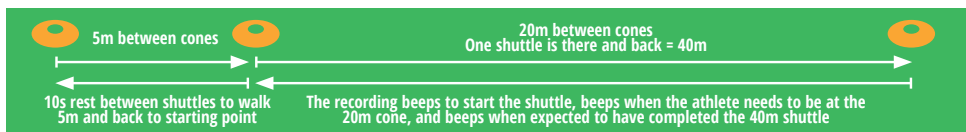
AUDIO FILE DOWNLOAD

The Yo-Yo measures the ability at high-intensity aerobic performance and provides a base of predicting VO2 max and aerobic power. Like many test measurements, practice, knowledge and understanding, help to improve performance. The first one can be tough and have a negative emotional affect, which makes it more difficult to improve performance. Increasing speed, agility and overall fitness, and working within a group can significantly improve results.

The Yo-Yo involves running between two markers, 20m apart, and another marker 5m in front of the start. Audio prompts dictate the running speed required. One shuttle is 20m and back, with an active break of 10 seconds, walking around the 5m marker, before running 40m again. The running speed increases at regular intervals. The test continues until the participants are no longer able to keep up with the required pace.

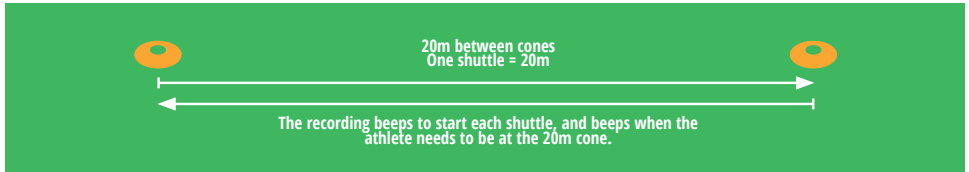
LEVEL	SHUTTLE (2x20m)	SPEED (km/hr)	TOTAL (m)
5	1	10.0	40
9	1	12.0	80
11	1	13.0	120
11	2	13.0	160
12	1	13.5	200
12	2	13.5	240
12	3	13.5	280
13	1	14.0	320
13	2	14.0	360
13	3	14.0	400
13	4	14.0	440
14	1	14.5	480
14	2	14.5	520
14	3	14.5	560
14	4	14.5	600
14	5	14.5	640
14	6	14.5	680
14	7	14.5	720
14	8	14.5	760
15	1	15.0	800
15	2	15.0	840
15	3	15.0	880
15	4	15.0	920
15	5	15.0	960
15	6	15.0	1000
15	7	15.0	1040
15	8	15.0	1080
16	1	15.5	1120
16	2	15.5	1160
16	3	15.5	1200

LEVEL	SHUTTLE (2x20m)	SPEED (km/hr)	TOTAL (m)
16	4	15.5	1240
16	5	15.5	1280
16	6	15.5	1320
16	7	15.5	1360
16	8	15.5	1400
17	1	16.0	1440
17	2	16.0	1480
17	3	16.0	1520
17	4	16.0	1560
17	5	16.0	1600
17	6	16.0	1640
17	7	16.0	1680
17	8	16.0	1720
18	1	16.5	1760
18	2	16.5	1800
18	3	16.5	1840
18	4	16.5	1880
18	5	16.5	1920
18	6	16.5	1960
18	7	16.5	2000
18	8	16.5	2040
19	1	17.0	2080
19	2	17.0	2120
19	3	17.0	2160
19	4	17.0	2200
19	5	17.0	2240
19	6	17.0	2280
19	7	17.0	2320
19	8	17.0	2360
20	1	17.5	2400



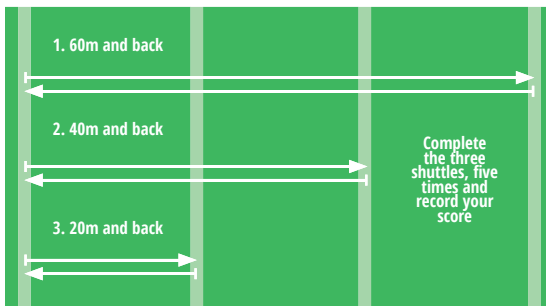
Multistage (BEEP): AUDIO FILE DOWNLOAD

The “Beep” (known as “BLEEP” in some parts of the world) is one of the most common endurance fitness tests, and involves running 20m shuttles back and forth on audio “beep” prompts, and gets progressively faster. It is a maximal test, running until the athlete is unable to complete two consecutive shuttles. It is primarily an aerobic fitness test, also testing running efficiency, turning technique, anaerobic capacity, motivation and social dynamics.



LEVEL	NR. OF SHUTTLES	RUN SPEED (km/h)	SHUTTLE TIME (s)	TOTAL (s)	TOTAL (mins:s)	LEVEL (m)	TOTAL (m)
1	7	8.0	9.00	63.0	1:03	140	140
2	8	9.0	8.00	64.0	2:07	160	300
3	8	9.5	7.58	60.6	3:08	160	460
4	9	10.0	7.20	64.8	4:12	180	640
5	9	10.5	6.86	61.7	5:14	180	820
6	10	11.0	6.55	65.5	6:20	200	1020
7	10	11.5	6.26	62.6	7:22	200	1220
8	11	12.0	6.00	66.0	8:28	220	1440
9	11	12.5	5.76	63.4	9:32	220	1660
10	11	13.0	5.54	60.9	10:32	220	1880
11	12	13.5	5.33	64.0	11:36	240	2120
12	12	14.0	5.14	61.7	12:38	240	2360
13	13	14.5	4.97	64.6	13:43	260	2620
14	13	15.0	4.80	62.4	14:45	260	2880

Bronco



Bronco has become a core test in rugby. The preferred application for referees, recommended by former World Rugby Strength & Conditioning expert, Phil Dunne, is to reverse the shuttles of 20m and back, 40m and back, 60m and back, to 60-40-20. The reason is that it is easier to establish a consistent pace by starting with the 60m

shuttles. The goal is to run each set five times and record your time. Running the Bronco once or twice a week is a great way to improve and maintain fitness levels.

FITNESS MEASUREMENT COMPARISON

BRONCO	BEEP	YO-YO
4:45 - 5:00	13.0	19.0
5:00 - 5:15	12.6	18.4
5:15 - 5:30	12.0	18.0
5:30 - 5:45	11.6	17.4
5:45 - 6:00	11.0	17.0
6:00 - 6:15	10.6	16.4
6:15 - 6:30	10.0	16.0

**“I hated every minute of training, but i said, don’t quit.
Suffer now and live the rest of your life as a champion.”**

~ Muhammad Ali