

Swimming Australia 'SpeedChart'

100 LCM Freestyle



Time	15m	20m	25m	30m	35m	40m	45m	50m (feet)	60m	65m	70m	75m	80m	85m	90m	95m	Finish Time	Turn	1st 50m	2nd 50m	100m
45.0	5.20	7.56	9.79	12.09	14.40	16.71	19.02	21.56	25.55	27.94	30.32	32.71	35.21	37.71	40.21	42.70	2.30	6.54	21.56	23.44	45.0
45.5	5.28	7.66	9.91	12.24	14.58	16.90	19.24	21.81	25.85	28.26	30.67	33.09	35.61	38.14	40.66	43.18	2.32	6.61	21.81	23.69	45.5
46.0	5.35	7.76	10.03	12.39	14.75	17.10	19.46	22.06	26.15	28.59	31.02	33.47	36.01	38.56	41.11	43.66	2.34	6.69	22.06	23.94	46.0
46.5	5.42	7.85	10.16	12.54	14.92	17.30	19.68	22.31	26.45	28.91	31.38	33.84	36.41	38.99	41.56	44.13	2.37	6.76	22.31	24.19	46.5
47.0	5.50	7.95	10.28	12.68	15.09	17.50	19.91	22.56	26.75	29.24	31.73	34.22	36.81	39.41	42.01	44.61	2.39	6.84	22.56	24.44	47.0
47.5	5.57	8.05	10.40	12.83	15.27	17.70	20.13	22.81	27.05	29.56	32.08	34.60	37.22	39.84	42.46	45.08	2.42	6.92	22.81	24.69	47.5
48.0	5.64	8.15	10.52	12.98	15.44	17.89	20.35	23.07	27.34	29.89	32.43	34.97	37.62	40.27	42.92	45.56	2.44	6.99	23.07	24.93	48.0
48.5	5.71	8.25	10.65	13.13	15.61	18.09	20.57	23.32	27.64	30.21	32.78	35.35	38.02	40.69	43.37	46.04	2.46	7.07	23.32	25.18	48.5
49.0	5.79	8.35	10.77	13.27	15.78	18.29	20.80	23.57	27.94	30.53	33.13	35.73	38.42	41.12	43.82	46.51	2.49	7.14	23.57	25.43	49.0
49.5	5.86	8.45	10.89	13.42	15.96	18.49	21.02	23.82	28.24	30.86	33.48	36.10	38.82	41.55	44.27	46.99	2.51	7.22	23.82	25.68	49.5
50.0	5.93	8.54	11.01	13.57	16.13	18.68	21.24	24.07	28.54	31.18	33.83	36.48	39.22	41.97	44.72	47.46	2.54	7.30	24.07	25.93	50.0
50.5	6.01	8.64	11.14	13.72	16.30	18.88	21.46	24.32	28.84	31.51	34.18	36.86	39.63	42.40	45.17	47.94	2.56	7.37	24.32	26.18	50.5
51.0	6.08	8.74	11.26	13.86	16.47	19.08	21.69	24.58	29.14	31.83	34.53	37.23	40.03	42.82	45.62	48.42	2.58	7.45	24.58	26.42	51.0
51.5	6.15	8.84	11.38	14.01	16.65	19.28	21.91	24.83	29.43	32.16	34.88	37.61	40.43	43.25	46.07	48.89	2.61	7.52	24.83	26.67	51.5
52.0	6.22	8.94	11.50	14.16	16.82	19.47	22.13	25.08	29.73	32.48	35.23	37.99	40.83	43.68	46.53	49.37	2.63	7.60	25.08	26.92	52.0
52.5	6.30	9.04	11.63	14.31	16.99	19.67	22.36	25.33	30.03	32.81	35.58	38.36	41.23	44.10	46.98	49.84	2.66	7.68	25.33	27.17	52.5
53.0	6.37	9.13	11.75	14.45	17.16	19.87	22.58	25.58	30.33	33.13	35.93	38.74	41.63	44.53	47.43	50.32	2.68	7.75	25.58	27.42	53.0
53.5	6.44	9.23	11.87	14.60	17.34	20.07	22.80	25.84	30.63	33.46	36.28	39.12	42.03	44.96	47.88	50.80	2.70	7.83	25.84	27.67	53.5
54.0	6.52	9.33	11.99	14.75	17.51	20.26	23.02	26.09	30.93	33.78	36.63	39.49	42.44	45.38	48.33	51.27	2.73	7.90	26.09	27.91	54.0
54.5	6.59	9.43	12.12	14.90	17.68	20.46	23.25	26.34	31.23	34.11	36.98	39.87	42.84	45.81	48.78	51.75	2.75	7.98	26.34	28.16	54.5
55.0	6.66	9.53	12.24	15.04	17.85	20.66	23.47	26.59	31.52	34.43	37.34	40.25	43.24	46.24	49.23	52.22	2.78	8.06	26.59	28.41	55.0
55.5	6.73	9.63	12.36	15.19	18.03	20.86	23.69	26.84	31.82	34.75	37.69	40.62	43.64	46.66	49.68	52.70	2.80	8.13	26.84	28.66	55.5
56.0	6.81	9.72	12.48	15.34	18.20	21.05	23.91	27.09	32.12	35.08	38.04	41.00	44.04	47.09	50.13	53.18	2.82	8.21	27.09	28.91	56.0
56.5	6.88	9.82	12.61	15.49	18.37	21.25	24.14	27.35	32.42	35.40	38.39	41.38	44.44	47.51	50.59	53.65	2.85	8.28	27.35	29.15	56.5
57.0	6.95	9.92	12.73	15.63	18.54	21.45	24.36	27.60	32.72	35.73	38.74	41.75	44.84	47.94	51.04	54.13	2.87	8.36	27.60	29.40	57.0
57.5	7.03	10.02	12.85	15.78	18.72	21.65	24.58	27.85	33.02	36.05	39.09	42.13	45.25	48.37	51.49	54.60	2.90	8.44	27.85	29.65	57.5
58.0	7.10	10.12	12.97	15.93	18.89	21.84	24.80	28.10	33.32	36.38	39.44	42.51	45.65	48.79	51.94	55.08	2.92	8.51	28.10	29.90	58.0
58.5	7.17	10.22	13.10	16.08	19.06	22.04	25.03	28.35	33.61	36.70	39.79	42.88	46.05	49.22	52.39	55.55	2.95	8.59	28.35	30.15	58.5
59.0	7.25	10.31	13.22	16.22	19.23	22.24	25.25	28.60	33.91	37.03	40.14	43.26	46.45	49.65	52.84	56.03	2.97	8.66	28.60	30.40	59.0
59.5	7.32	10.41	13.34	16.37	19.41	22.44	25.47	28.86	34.21	37.35	40.49	43.64	46.85	50.07	53.29	56.51	2.99	8.74	28.86	30.64	59.5
60.0	7.39	10.51	13.46	16.52	19.58	22.63	25.69	29.11	34.51	37.68	40.84	44.01	47.25	50.50	53.74	56.98	3.02	8.82	29.11	30.89	60.0

How to use the 'SpeedChart'

1. Use the target race time to set training times for specific distances. Race speeds should be achievable in training up to approximately 60% of race distance.

2. Predict 100m time based on training times over shorter distances. Use of the chart this way will help to ensure that training is speed specific. This is not a way to predict race times but a way of ensuring specific speeds are being attained in training.

*** Always use these 'SpeedCharts' in conjunction with other race analysis information (stroke rates, stroke count, turning information (breakout etc) and breathing patterns) to ensure specificity of training and to ensure speed and technique goals are achieved.**

ALL TIMES ARE BASED ON TIME FROM GUN TO HEAD
adjustments for other timing methods:

Timing Method Adjustments:	
Feet off Blocks	+0.75
Time to hand	+0.25
Feet off wall	-0.20

1. Short intervals: look up chart time, then subtract the adjustment
2. projected race time: add adjustment and look up chart with adjusted time

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100 LCM Freestyle



Time	Quarters				2nd 50m Segments						2nd Lap Push targets (feet off)*								Time
	1st 25 0-25m	2nd 25m 25-50m	3rd 25 50-75m	4th 25 75-100m	Last 35m 65-100m	Last 30m 70-100m	Last 25m 75-100m	Last 20m 80-100m	Last 15m 85-100m	Last 10m 90-100m	15m 50-65m	20m 50-70m	25m 50-75m	30m 50-80m	35m 50-85m	40m 50-90m	45m 50-95m	50m 50-100m	
45.0	9.79	11.77	11.16	12.29	17.06	14.68	12.29	9.79	7.29	4.79	5.98	8.37	10.76	13.25	15.75	18.25	20.75	23.04	45.0
45.5	9.91	11.90	11.28	12.41	17.24	14.83	12.41	9.89	7.36	4.84	6.05	8.47	10.88	13.40	15.93	18.45	20.97	23.29	45.5
46.0	10.03	12.03	11.41	12.53	17.41	14.98	12.53	9.99	7.44	4.89	6.13	8.57	11.01	13.55	16.10	18.65	21.20	23.54	46.0
46.5	10.16	12.15	11.53	12.66	17.59	15.12	12.66	10.09	7.51	4.94	6.20	8.66	11.13	13.70	16.28	18.85	21.42	23.79	46.5
47.0	10.28	12.28	11.66	12.78	17.76	15.27	12.78	10.19	7.59	4.99	6.27	8.76	11.26	13.85	16.45	19.05	21.65	24.04	47.0
47.5	10.40	12.41	11.78	12.90	17.94	15.42	12.90	10.28	7.66	5.04	6.35	8.86	11.38	14.00	16.63	19.25	21.87	24.29	47.5
48.0	10.52	12.54	11.91	13.03	18.11	15.57	13.03	10.38	7.73	5.08	6.42	8.96	11.51	14.15	16.80	19.45	22.09	24.53	48.0
48.5	10.65	12.67	12.03	13.15	18.29	15.72	13.15	10.48	7.81	5.13	6.49	9.06	11.63	14.30	16.98	19.65	22.32	24.78	48.5
49.0	10.77	12.80	12.16	13.27	18.47	15.87	13.27	10.58	7.88	5.18	6.57	9.16	11.76	14.45	17.15	19.85	22.54	25.03	49.0
49.5	10.89	12.93	12.28	13.40	18.64	16.02	13.40	10.68	7.95	5.23	6.64	9.26	11.88	14.60	17.32	20.05	22.77	25.28	49.5
50.0	11.01	13.06	12.41	13.52	18.82	16.17	13.52	10.78	8.03	5.28	6.71	9.36	12.01	14.75	17.50	20.25	22.99	25.53	50.0
50.5	11.14	13.19	12.53	13.64	18.99	16.32	13.64	10.87	8.10	5.33	6.78	9.46	12.13	14.90	17.67	20.45	23.21	25.78	50.5
51.0	11.26	13.32	12.66	13.77	19.17	16.47	13.77	10.97	8.18	5.38	6.86	9.55	12.26	15.05	17.85	20.65	23.44	26.02	51.0
51.5	11.38	13.45	12.78	13.89	19.34	16.62	13.89	11.07	8.25	5.43	6.93	9.65	12.38	15.20	18.02	20.85	23.66	26.27	51.5
52.0	11.50	13.58	12.91	14.01	19.52	16.77	14.01	11.17	8.32	5.47	7.00	9.75	12.51	15.35	18.20	21.05	23.89	26.52	52.0
52.5	11.63	13.70	13.03	14.14	19.69	16.92	14.14	11.27	8.40	5.52	7.08	9.85	12.63	15.50	18.37	21.24	24.11	26.77	52.5
53.0	11.75	13.83	13.16	14.26	19.87	17.07	14.26	11.37	8.47	5.57	7.15	9.95	12.76	15.65	18.55	21.44	24.34	27.02	53.0
53.5	11.87	13.96	13.28	14.38	20.04	17.22	14.38	11.47	8.54	5.62	7.22	10.05	12.88	15.80	18.72	21.64	24.56	27.27	53.5
54.0	11.99	14.09	13.41	14.51	20.22	17.37	14.51	11.56	8.62	5.67	7.29	10.15	13.01	15.95	18.90	21.84	24.78	27.51	54.0
54.5	12.12	14.22	13.53	14.63	20.39	17.52	14.63	11.66	8.69	5.72	7.37	10.25	13.13	16.10	19.07	22.04	25.01	27.76	54.5
55.0	12.24	14.35	13.66	14.75	20.57	17.66	14.75	11.76	8.77	5.77	7.44	10.35	13.26	16.25	19.24	22.24	25.23	28.01	55.0
55.5	12.36	14.48	13.78	14.88	20.75	17.81	14.88	11.86	8.84	5.82	7.51	10.44	13.38	16.40	19.42	22.44	25.46	28.26	55.5
56.0	12.48	14.61	13.91	15.00	20.92	17.96	15.00	11.96	8.91	5.87	7.59	10.54	13.51	16.55	19.59	22.64	25.68	28.51	56.0
56.5	12.61	14.74	14.03	15.12	21.10	18.11	15.12	12.06	8.99	5.91	7.66	10.64	13.63	16.70	19.77	22.84	25.91	28.75	56.5
57.0	12.73	14.87	14.16	15.25	21.27	18.26	15.25	12.16	9.06	5.96	7.73	10.74	13.76	16.85	19.94	23.04	26.13	29.00	57.0
57.5	12.85	15.00	14.28	15.37	21.45	18.41	15.37	12.25	9.13	6.01	7.80	10.84	13.88	17.00	20.12	23.24	26.35	29.25	57.5
58.0	12.97	15.13	14.41	15.49	21.62	18.56	15.49	12.35	9.21	6.06	7.88	10.94	14.01	17.15	20.29	23.44	26.58	29.50	58.0
58.5	13.10	15.26	14.53	15.62	21.80	18.71	15.62	12.45	9.28	6.11	7.95	11.04	14.13	17.30	20.47	23.64	26.80	29.75	58.5
59.0	13.22	15.38	14.66	15.74	21.97	18.86	15.74	12.55	9.35	6.16	8.02	11.14	14.26	17.45	20.64	23.84	27.03	30.00	59.0
59.5	13.34	15.51	14.78	15.86	22.15	19.01	15.86	12.65	9.43	6.21	8.10	11.24	14.38	17.60	20.82	24.04	27.25	30.24	59.5
60.0	13.46	15.64	14.91	15.99	22.32	19.16	15.99	12.75	9.50	6.26	8.17	11.33	14.51	17.75	20.99	24.24	27.48	30.49	60.0

* 2nd lap push targets are based on time from **feet-off** wall to **head past** the specified distance except for the push 50m target (**feet-off** to **hand touch**)
(foot contact time: 0.4 sec)