

Choosing the Right Intensities for Throws

test distance	low-medium intensity		high-medium intensity		maximal intensity	
	60%	79%	80%	95%	96%	100%
40	24.00	31.60	32.00	38.00	38.40	40.00
41	24.60	32.39	32.80	38.95	39.36	41.00
42	25.20	33.18	33.60	39.90	40.32	42.00
43	25.80	33.97	34.40	40.85	41.28	43.00
44	26.40	34.76	35.20	41.80	42.24	44.00
45	27.00	35.55	36.00	42.75	43.20	45.00
46	27.60	36.34	36.80	43.70	44.16	46.00
47	28.20	37.13	37.60	44.65	45.12	47.00
48	28.80	37.92	38.40	45.60	46.08	48.00
49	29.40	38.71	39.20	46.55	47.04	49.00
50	30.00	39.50	40.00	47.50	48.00	50.00
51	30.60	40.29	40.80	48.45	48.96	51.00
52	31.20	41.08	41.60	49.40	49.92	52.00
53	31.80	41.87	42.40	50.35	50.88	53.00
54	32.40	42.66	43.20	51.30	51.84	54.00
55	33.00	43.45	44.00	52.25	52.80	55.00
56	33.60	44.24	44.80	53.20	53.76	56.00
57	34.20	45.03	45.60	54.15	54.72	57.00
58	34.80	45.82	46.40	55.10	55.68	58.00
59	35.40	46.61	47.20	56.05	56.64	59.00
60	36.00	47.40	48.00	57.00	57.60	60.00
61	36.60	48.19	48.80	57.95	58.56	61.00
62	37.20	48.98	49.60	58.90	59.52	62.00
63	37.80	49.77	50.40	59.85	60.48	63.00
64	38.40	50.56	51.20	60.80	61.44	64.00
65	39.00	51.35	52.00	61.75	62.40	65.00
66	39.60	52.14	52.80	62.70	63.36	66.00
67	40.20	52.93	53.60	63.65	64.32	67.00
68	40.80	53.72	54.40	64.60	65.28	68.00
69	41.40	54.51	55.20	65.55	66.24	69.00
70	42.00	55.30	56.00	66.50	67.20	70.00
71	42.60	56.09	56.80	67.45	68.16	71.00
72	43.20	56.88	57.60	68.40	69.12	72.00
73	43.80	57.67	58.40	69.35	70.08	73.00
74	44.40	58.46	59.20	70.30	71.04	74.00
75	45.00	59.25	60.00	71.25	72.00	75.00
76	45.60	60.04	60.80	72.20	72.96	76.00
77	46.20	60.83	61.60	73.15	73.92	77.00
78	46.80	61.62	62.40	74.10	74.88	78.00
79	47.40	62.41	63.20	75.05	75.84	79.00
80	48.00	63.20	64.00	76.00	76.80	80.00
81	48.60	63.99	64.80	76.95	77.76	81.00
82	49.20	64.78	65.60	77.90	78.72	82.00
83	49.80	65.57	66.40	78.85	79.68	83.00
84	50.40	66.36	67.20	79.80	80.64	84.00
85	51.00	67.15	68.00	80.75	81.60	85.00

86

51.60

67.94

68.80 81.70

82.56

86.00

College and Open Men

rule of thumb: 10% difference per kilogram

	7.26 kg	6.0 kg	6.25 kg	6.5 kg	6.75 kg	7.0 kg	7.5 kg	7.75 kg	8.0 kg	8.25 kg	8.5 kg
meters	12.60%	10.10%	7.60%	5.10%	2.60%	-2.40%	-4.90%	-7.40%	-9.90%	-12.40%	
50	56.30	55.05	53.80	52.55	51.30	48.80	47.55	46.30	45.05	43.80	
51	57.43	56.15	54.88	53.60	52.33	49.78	48.50	47.23	45.95	44.68	
52	58.55	57.25	55.95	54.65	53.35	50.75	49.45	48.15	46.85	45.55	
53	59.68	58.35	57.03	55.70	54.38	51.73	50.40	49.08	47.75	46.43	
54	60.80	59.45	58.10	56.75	55.40	52.70	51.35	50.00	48.65	47.30	
55	61.93	60.56	59.18	57.81	56.43	53.68	52.31	50.93	49.56	48.18	
56	63.06	61.66	60.26	58.86	57.46	54.66	53.26	51.86	50.46	49.06	
57	64.18	62.76	61.33	59.91	58.48	55.63	54.21	52.78	51.36	49.93	
58	65.31	63.86	62.41	60.96	59.51	56.61	55.16	53.71	52.26	50.81	
59	66.43	64.96	63.48	62.01	60.53	57.58	56.11	54.63	53.16	51.68	
60	67.56	66.06	64.56	63.06	61.56	58.56	57.06	55.56	54.06	52.56	
61	68.69	67.16	65.64	64.11	62.59	59.54	58.01	56.49	54.96	53.44	
62	69.81	68.26	66.71	65.16	63.61	60.51	58.96	57.41	55.86	54.31	
63	70.94	69.36	67.79	66.21	64.64	61.49	59.91	58.34	56.76	55.19	
64	72.06	70.46	68.86	67.26	65.66	62.46	60.86	59.26	57.66	56.06	
65	73.19	71.57	69.94	68.32	66.69	63.44	61.82	60.19	58.57	56.94	
66	74.32	72.67	71.02	69.37	67.72	64.42	62.77	61.12	59.47	57.82	
67	75.44	73.77	72.09	70.42	68.74	65.39	63.72	62.04	60.37	58.69	
68	76.57	74.87	73.17	71.47	69.77	66.37	64.67	62.97	61.27	59.57	
69	77.69	75.97	74.24	72.52	70.79	67.34	65.62	63.89	62.17	60.44	
70	78.82	77.07	75.32	73.57	71.82	68.32	66.57	64.82	63.07	61.32	
71	79.95	78.17	76.40	74.62	72.85	69.30	67.52	65.75	63.97	62.20	
72	81.07	79.27	77.47	75.67	73.87	70.27	68.47	66.67	64.87	63.07	
73	82.20	80.37	78.55	76.72	74.90	71.25	69.42	67.60	65.77	63.95	
74	83.32	81.47	79.62	77.77	75.92	72.22	70.37	68.52	66.67	64.82	
75	84.45	82.58	80.70	78.83	76.95	73.20	71.33	69.45	67.58	65.70	
76	85.58	83.68	81.78	79.88	77.98	74.18	72.28	70.38	68.48	66.58	
77	86.70	84.78	82.85	80.93	79.00	75.15	73.23	71.30	69.38	67.45	
78	87.83	85.88	83.93	81.98	80.03	76.13	74.18	72.23	70.28	68.33	
79	88.95	86.98	85.00	83.03	81.05	77.10	75.13	73.15	71.18	69.20	
80	90.08	88.08	86.08	84.08	82.08	78.08	76.08	74.08	72.08	70.08	
81	91.21	89.18	87.16	85.13	83.11	79.06	77.03	75.01	72.98	70.96	
82	92.33	90.28	88.23	86.18	84.13	80.03	77.98	75.93	73.88	71.83	
83	93.46	91.38	89.31	87.23	85.16	81.01	78.93	76.86	74.78	72.71	
84	94.58	92.48	90.38	88.28	86.18	81.98	79.88	77.78	75.68	73.58	
85	95.71	93.59	91.46	89.34	87.21	82.96	80.84	78.71	76.59	74.46	
86	96.84	94.69	92.54	90.39	88.24	83.94	81.79	79.64	77.49	75.34	

College and Open Women

rule of thumb: 15% per kilogram

	4.0 kg	3 kg	3.25 kg	3.5 kg	3.75 kg	4.25 kg	4.5 kg	4.75 kg	5 kg
meters	15%	11.25%	7.50%	3.75%	-3.75%	-7.50%	-11.25%	-15%	
45	51.75	50.06	48.38	46.69	43.31	41.63	39.94	38.25	
46	52.90	51.18	49.45	47.73	44.28	42.55	40.83	39.10	
47	54.05	52.29	50.53	48.76	45.24	43.48	41.71	39.95	
48	55.20	53.40	51.60	49.80	46.20	44.40	42.60	40.80	
49	56.35	54.51	52.68	50.84	47.16	45.33	43.49	41.65	
50	57.50	55.63	53.75	51.88	48.13	46.25	44.38	42.50	
51	58.65	56.74	54.83	52.91	49.09	47.18	45.26	43.35	
52	59.80	57.85	55.90	53.95	50.05	48.10	46.15	44.20	
53	60.95	58.96	56.98	54.99	51.01	49.03	47.04	45.05	
54	62.10	60.08	58.05	56.03	51.98	49.95	47.93	45.90	
55	63.25	61.19	59.13	57.06	52.94	50.88	48.81	46.75	
56	64.40	62.30	60.20	58.10	53.90	51.80	49.70	47.60	
57	65.55	63.41	61.28	59.14	54.86	52.73	50.59	48.45	
58	66.70	64.53	62.35	60.18	55.83	53.65	51.48	49.30	
59	67.85	65.64	63.43	61.21	56.79	54.58	52.36	50.15	
60	69.00	66.75	64.50	62.25	57.75	55.50	53.25	51.00	
61	70.15	67.86	65.58	63.29	58.71	56.43	54.14	51.85	
62	71.30	68.98	66.65	64.33	59.68	57.35	55.03	52.70	
63	72.45	70.09	67.73	65.36	60.64	58.28	55.91	53.55	
64	73.60	71.20	68.80	66.40	61.60	59.20	56.80	54.40	
65	74.75	72.31	69.88	67.44	62.56	60.13	57.69	55.25	
66	75.90	73.43	70.95	68.48	63.53	61.05	58.58	56.10	
67	77.05	74.54	72.03	69.51	64.49	61.98	59.46	56.95	
68	78.20	75.65	73.10	70.55	65.45	62.90	60.35	57.80	
69	79.35	76.76	74.18	71.59	66.41	63.83	61.24	58.65	
70	80.50	77.88	75.25	72.63	67.38	64.75	62.13	59.50	
71	81.65	78.99	76.33	73.66	68.34	65.68	63.01	60.35	
72	82.80	80.10	77.40	74.70	69.30	66.60	63.90	61.20	
73	83.95	81.21	78.48	75.74	70.26	67.53	64.79	62.05	
74	85.10	82.33	79.55	76.78	71.23	68.45	65.68	62.90	
75	86.25	83.44	80.63	77.81	72.19	69.38	66.56	63.75	

High School Girls

rule of thumb: 17.5% per kilogram

	4.0 kg	3 kg	3.25 kg	3.5 kg	3.75 kg	4.25 kg	4.5 kg	4.75 kg	5 kg
meters	17.50%	13.13%	8.75%	4.38%	-4.38%	-8.75%	-13.13%	-17.50%	
40	47.00	45.25	43.50	41.75	38.25	36.50	34.75	33.00	
41	48.18	46.38	44.59	42.80	39.20	37.41	35.62	33.83	
42	49.35	47.51	45.68	43.84	40.16	38.33	36.49	34.65	
43	50.53	48.65	46.76	44.88	41.12	39.24	37.35	35.48	
44	51.70	49.78	47.85	45.93	42.07	40.15	38.22	36.30	
45	52.88	50.91	48.94	46.97	43.03	41.06	39.09	37.13	
46	54.05	52.04	50.03	48.01	43.99	41.98	39.96	37.95	
47	55.23	53.17	51.11	49.06	44.94	42.89	40.83	38.78	
48	56.40	54.30	52.20	50.10	45.90	43.80	41.70	39.60	
49	57.58	55.43	53.29	51.15	46.85	44.71	42.57	40.43	
50	58.75	56.57	54.38	52.19	47.81	45.63	43.44	41.25	
51	59.93	57.70	55.46	53.23	48.77	46.54	44.30	42.08	
52	61.10	58.83	56.55	54.28	49.72	47.45	45.17	42.90	
53	62.28	59.96	57.64	55.32	50.68	48.36	46.04	43.73	
54	63.45	61.09	58.73	56.37	51.63	49.28	46.91	44.55	
55	64.63	62.22	59.81	57.41	52.59	50.19	47.78	45.38	
56	65.80	63.35	60.90	58.45	53.55	51.10	48.65	46.20	
57	66.98	64.48	61.99	59.50	54.50	52.01	49.52	47.03	
58	68.15	65.62	63.08	60.54	55.46	52.93	50.38	47.85	
59	69.33	66.75	64.16	61.58	56.42	53.84	51.25	48.68	
60	70.50	67.88	65.25	62.63	57.37	54.75	52.12	49.50	
61	71.68	69.01	66.34	63.67	58.33	55.66	52.99	50.33	
62	72.85	70.14	67.43	64.72	59.28	56.58	53.86	51.15	
63	74.03	71.27	68.51	65.76	60.24	57.49	54.73	51.98	
64	75.20	72.40	69.60	66.80	61.20	58.40	55.60	52.80	
65	76.38	73.53	70.69	67.85	62.15	59.31	56.47	53.63	

High School Boys

rule of thumb: 15% per kilogram

	5.45 kg	4.5 kg	4.75 kg	5 kg	5.25 kg	5.75 kg	6 kg	6.25 kg	6.5 kg
meters	14.25%	10.50%	6.75%	3%	-4.50%	-8.25%	-12%	-15.75%	
45	51.41	49.73	48.04	46.35	42.98	41.29	39.60	37.91	
46	52.56	50.83	49.11	47.38	43.93	42.21	40.48	38.76	
47	53.70	51.94	50.17	48.41	44.89	43.12	41.36	39.60	
48	54.84	53.04	51.24	49.44	45.84	44.04	42.24	40.44	
49	55.98	54.15	52.31	50.47	46.80	44.96	43.12	41.28	
50	57.13	55.25	53.38	51.50	47.75	45.88	44.00	42.13	
51	58.27	56.36	54.44	52.53	48.71	46.79	44.88	42.97	
52	59.41	57.46	55.51	53.56	49.66	47.71	45.76	43.81	
53	60.55	58.57	56.58	54.59	50.62	48.63	46.64	44.65	
54	61.70	59.67	57.65	55.62	51.57	49.55	47.52	45.50	
55	62.84	60.78	58.71	56.65	52.53	50.46	48.40	46.34	
56	63.98	61.88	59.78	57.68	53.48	51.38	49.28	47.18	
57	65.12	62.99	60.85	58.71	54.44	52.30	50.16	48.02	
58	66.27	64.09	61.92	59.74	55.39	53.22	51.04	48.87	
59	67.41	65.20	62.98	60.77	56.35	54.13	51.92	49.71	
60	68.55	66.30	64.05	61.80	57.30	55.05	52.80	50.55	
61	69.69	67.41	65.12	62.83	58.26	55.97	53.68	51.39	
62	70.84	68.51	66.19	63.86	59.21	56.89	54.56	52.24	
63	71.98	69.62	67.25	64.89	60.17	57.80	55.44	53.08	
64	73.12	70.72	68.32	65.92	61.12	58.72	56.32	53.92	
65	74.26	71.83	69.39	66.95	62.08	59.64	57.20	54.76	
66	75.41	72.93	70.46	67.98	63.03	60.56	58.08	55.61	
67	76.55	74.04	71.52	69.01	63.99	61.47	58.96	56.45	
68	77.69	75.14	72.59	70.04	64.94	62.39	59.84	57.29	
69	78.83	76.25	73.66	71.07	65.90	63.31	60.72	58.13	
70	79.98	77.35	74.73	72.10	66.85	64.23	61.60	58.98	
71	81.12	78.46	75.79	73.13	67.81	65.14	62.48	59.82	
72	82.26	79.56	76.86	74.16	68.76	66.06	63.36	60.66	
73	83.40	80.67	77.93	75.19	69.72	66.98	64.24	61.50	
74	84.55	81.77	79.00	76.22	70.67	67.90	65.12	62.35	
75	85.69	82.88	80.06	77.25	71.63	68.81	66.00	63.19	