

BTrackS™

BBT Normative Data and Fall Risk Assessment

Since 2014, BTrackS Balance Plates have been installed in hundreds of locations around the United States and we have collected over 20,000 BBT's from those plates. All of the BBT data is de-identified for anonymity. Using these results, Balance Tracking Systems has created a normative database which is represented by the two tables on the right. There is a male and female table and the data is broken down by age (vertical) and percentile ranking (horizontal). When an individual receives a BBT, it's compared with other BBTs in the that age group to obtain a percentile ranking. As an example, a 77-year-old male who gets a BBT of 61 is in the 25th percentile for their age and this is highlighted in the Male table.

BTrackS Fall Risk Assessment (FRA) categorizes an individual's fall risk as either Low, Moderate or High. While this assessment is calculated for each individual – it is recommended that it only be utilized for adults aged 60 and above. The assessment is determined by comparing the individual's BBT to the average BBT of an adult aged 20-39. Adults 20-39 are not considered fall-risk candidates and after testing thousands of individuals in this age range – it is possible to calculate a statistical average – which is 22cm for women and 24cm for men.

A Fall Risk Assessment of LOW is provided when the BBT is lower than 1 standard deviation above the average. These BBT's are represented in **GREEN** in the tables. A Fall Risk Assessment of MODERATE is provided when the BBT is between 1 and 2 standard deviations above the average. These BBT's are represented in **YELLOW** in the tables. A Fall Risk Assessment of HIGH is provided when the BBT is greater than 2 standard deviations above the average and is colored **RED** in the tables. These assessments are in line with population statistics documenting about 25% of individuals aged 65 have high fall risk and about 50% of individuals aged 80 and above have high fall risk.

A version of this normative data has been published in the Physical Therapy Journal (PTJ), the flagship journal for the American Physical Therapy Association. The Citation is: 1: Goble DJ, Baweja HS. Normative Data for the BTrackS Balance Test of Postural Sway: Results from 16,357 Community-Dwelling Individuals Who Were 5 to 100 Years Old. Phys Ther. 2018 Sep 1;98(9):779-785.

Fall Risk Assessment Charts

MALE

%ile	20-29	30-39	40-49	50-59	60-64	65-69	70-74	75-79	80+
100%	8	9	11	10	12	10	5	13	16
95%	14	13	14	17	19	19	18	20	22
90%	16	15	16	18	22	21	21	22	25
85%	17	16	17	20	24	23	23	26	27
80%	18	17	18	21	25	24	26	27	30
75%	19	18	20	22	25	26	28	29	33
70%	19	19	21	23	27	27	30	31	35
65%	20	21	22	24	29	29	31	33	38
60%	21	21	23	25	29	30	33	35	40
55%	22	23	24	26	30	33	34	37	44
50%	23	23	25	28	31	34	37	39	46
45%	24	24	26	29	33	35	40	41	50
40%	25	25	27	30	34	37	44	43	54
35%	26	26	28	32	37	40	46	48	59
30%	27	27	30	33	38	43	48	53	65
25%	28	29	31	36	41	45	50	61	72
20%	29	30	32	38	43	49	55	67	79
15%	31	32	34	41	49	56	67	76	88
10%	33	34	40	51	54	65	75	83	97
5%	38	37	47	64	68	81	100	101	108
0%	94	112	113	186	317	249	210	146	233

FEMALE

%ile	20-29	30-39	40-49	50-59	60-64	65-69	70-74	75-79	80+
100%	8	10	8	8	9	9	9	13	10
95%	13	13	13	15	15	16	15	17	17
90%	14	14	15	16	17	18	18	20	20
85%	16	15	16	17	19	19	19	22	22
80%	17	16	17	19	20	20	21	24	24
75%	17	17	18	20	21	21	22	25	26
70%	18	18	19	21	22	23	24	27	29
65%	19	19	20	22	23	24	25	28	31
60%	20	20	21	23	24	25	26	29	32
55%	20	20	22	24	25	27	27	31	34
50%	21	21	23	25	27	28	29	32	37
45%	22	21	23	27	28	29	30	34	39
40%	22	22	24	28	29	31	32	37	42
35%	23	23	26	29	30	32	34	39	45
30%	24	24	27	30	32	35	36	42	49
25%	25	26	28	32	34	37	39	45	53
20%	27	27	29	33	36	40	42	49	58
15%	28	29	31	36	39	43	47	55	65
10%	30	31	34	40	43	48	54	61	75
5%	35	36	42	46	49	62	68	77	100
0%	74	59	122	118	120	170	165	581	212



Engineered and Assembled in the USA
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