

**Normative data for Sniffin Sticks**

**14-JULY-2012**

Subjects with **functional anosmia** score 16.5 TDI points and less (as derived from Kobal et al. EAORL 2000; 257 **Normosmic subjects** have a TDI score of 31 and more

(using age group 21-30 years as a reference with the 10th percentile differentiating between hyp- and normosmia)

			16 item odor identification	16 item odor discrimination test	odor threshold	TDI score (sum from identification, discrimination and threshold measurements)	
1-10 years	N	Valid	407	67	67	33	
	Mean		12.66	10.85	6.030	25.81	
	Std. Deviation		2.473	2.084	2.1045	4.529	
	Percentiles	5		8.00	8.00	2.850	19.25
		10		9.00	8.00	3.250	19.60
		25		11.00	9.00	4.250	23.00
		50		13.00	11.00	6.000	25.00
		75		15.00	12.00	8.000	29.00
		90		16.00	13.20	8.750	31.45
95			16.00	14.60	9.150	35.58	
11-20 years	N	Valid	973	415	502	346	
	Mean		13.12	12.66	8.466	34.09	
	Std. Deviation		1.774	1.943	2.6756	4.202	
	Percentiles	5		10.00	9.00	4.441	26.75
		10		11.00	10.00	5.500	28.68
		25		12.00	11.00	6.750	31.50
		50		13.00	13.00	8.250	34.25
		75		14.00	14.00	10.000	37.00
		90		15.00	15.00	12.000	39.50
95			16.00	15.00	13.250	40.66	
21-30 years	N	Valid	2543	1221	1220	1172	
	Mean		13.57	13.04	9.625	36.17	
	Std. Deviation		1.899	1.874	3.0213	4.235	
	Percentiles	5		10.00	10.00	5.250	29.50
		10		11.00	11.00	6.250	30.75
		25		13.00	12.00	7.500	33.50
		50		14.00	13.00	9.000	36.00
		75		15.00	14.00	11.750	38.75
		90		16.00	15.00	14.000	41.75
95			16.00	16.00	15.000	43.50	
31-40 years	N	Valid	1030	449	456	443	
	Mean		13.63	12.77	9.091	35.65	
	Std. Deviation		1.658	1.841	2.8595	4.036	
	Percentiles	5		11.00	10.00	4.430	28.55
		10		12.00	10.00	5.500	30.50
		25		13.00	12.00	7.250	33.25
		50		14.00	13.00	8.750	35.75

			75	15.00	14.00	11.000	38.50
			90	15.00	15.00	12.575	40.50
			95	16.00	15.00	14.830	42.25
41-50 years	N	Valid	794	334	334	333	
	Mean		13.29	12.26	8.594	34.16	
	Std. Deviation		1.782	2.062	2.9041	4.813	
	Percentiles	5	10.00	9.00	3.500	25.35	
		10	11.00	9.00	5.350	28.25	
		25	12.00	11.00	6.750	31.75	
		50	14.00	13.00	8.500	35.00	
		75	14.00	14.00	10.500	37.25	
		90	15.00	15.00	12.500	39.50	
		95	16.00	15.00	14.063	41.08	
51-60 years	N	Valid	602	270	275	268	
	Mean		12.97	12.07	8.169	33.35	
	Std. Deviation		1.950	1.965	3.2140	5.030	
	Percentiles	5	9.00	9.00	3.000	25.00	
		10	10.00	9.00	4.250	27.20	
		25	12.00	11.00	6.000	30.56	
		50	13.00	12.00	8.000	33.25	
		75	14.00	13.00	9.750	36.75	
		90	15.00	14.00	12.500	39.50	
		95	16.00	15.00	14.400	41.14	
61-70 years	N	Valid	375	172	182	172	
	Mean		12.26	11.42	7.481	31.45	
	Std. Deviation		2.366	2.179	3.0445	4.987	
	Percentiles	5	7.80	7.00	2.500	22.00	
		10	10.00	8.00	3.575	25.00	
		25	11.00	10.00	5.750	28.81	
		50	13.00	12.00	7.500	31.75	
		75	14.00	13.00	9.000	34.50	
		90	15.00	14.00	11.000	36.93	
		95	15.00	14.00	12.925	38.59	
71-80 years	N	Valid	154	77	111	77	
	Mean		10.97	10.26	5.464	27.57	
	Std. Deviation		2.964	2.904	3.0678	6.899	
	Percentiles	5	4.75	5.00	1.000	12.90	
		10	7.00	6.00	1.250	17.25	
		25	9.00	8.00	2.750	23.25	
		50	11.50	11.00	5.500	28.50	
		75	13.00	13.00	7.750	32.63	
		90	14.00	14.00	9.700	35.85	
		95	15.00	14.10	10.700	37.50	
81-90 years	N	Valid	88	31	84	32	
	Mean		8.64	8.39	4.307	22.96	
	Std. Deviation		3.573	2.692	2.8901	7.552	
	Percentiles	5	2.45	4.00	1.000	11.74	
		10	4.00	5.00	1.000	13.00	
		25	6.00	6.00	1.500	15.38	
		50	8.00	9.00	3.750	24.13	

75	12.00	10.00	6.500	27.88
90	13.00	12.00	8.500	33.20
95	15.00	13.40	10.063	36.25

:205)