

X. Physical Function Tests and Physical Activities

1) Physical fitness

- Sitting trunk flexion
- Right grip strength
- Left grip strength
- One leg standing with eyes closed
- Reaction time
- Leg extension power
- Sit up
- Right knee extension strength
- Left knee extension strength
- Maximum step length

2) Gait performance

- Step length, pitch and velocity during comfortable walking
- Step length, pitch and velocity during maximum walking

3) Stabilometry

- With eyes open
- With eyes closed

4) Physical activity accessed by electric pedometer

5) Physical activity questionnaire*

*Iwai N, Yoshiike N, Saitoh S, Nose T, Kushiro T, Tanaka H: Leisure-time physical activity and related lifestyle characteristics among middle-aged Japanese. Japan Lifestyle Monitoring Study Group. J Epidemiol 10: 226-33, 2000.

1) Physical fitness (Takei corp.)

Sitting trunk flexion (cm)

	40-49yr			50-59yr			60-69yr			70-79yr			80-yr			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
Male	3.4	8.9	269	1.7	8.6	293	1.3	9.5	284	0.7	8.9	266	3.1	9.4	16	1.8	9.0	1128
Female	9.1	7.8	259	9.6	7.7	282	10.0	7.2	270	8.5	7.4	256	10.1	7.9	18	9.3	7.5	1085
Total	6.2	8.8	528	5.6	9.1	575	5.5	9.5	554	4.5	9.1	522	6.8	9.2	34	5.5	9.1	2213

Right grip strength (kg)

	40-49yr			50-59yr			60-69yr			70-79yr			80-yr			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
Male	45.6	6.6	271	41.2	6.7	291	37.4	6.6	288	32.9	6.2	267	30.9	6.0	17	39.2	8.0	1134
Female	27.4	4.9	260	24.3	4.6	283	23.2	4.2	270	20.4	4.0	260	18.3	4.2	19	23.7	5.1	1092
Total	36.7	10.8	531	32.9	10.2	574	30.5	9.0	558	26.7	8.2	527	24.3	8.1	36	31.6	10.3	2226

Left grip strength (kg)

	40-49yr			50-59yr			60-69yr			70-79yr			80-yr			Total		
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	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
Male	43.8	6.3	271	39.9	6.6	294	35.7	6.4	287	31.7	5.8	268	29.8	5.9	17	37.7	7.8	1137
Female	26.1	4.6	261	23.1	4.5	281	21.8	4.0	270	19.1	3.9	259	16.8	3.9	20	22.4	5.0	1091
Total	35.1	10.4	532	31.7	10.2	575	28.9	8.8	557	25.5	8.0	527	22.8	8.1	37	30.2	10.1	2228

Foot balance with eyes closed (sec)

	40–49yr			50–59yr			60–69yr			70–79yr			80–yr			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
Male	35.0	35.3	271	21.3	25.4	294	9.7	11.8	287	4.7	4.2	261	2.7	1.3	15	17.6	25.3	1128
Female	32.2	37.3	260	15.9	22.4	283	7.5	9.7	270	4.0	3.0	243	3.4	1.7	16	14.8	24.7	1072
Total	33.6	36.3	531	18.7	24.1	577	8.6	10.9	557	4.3	3.7	504	3.1	1.5	31	16.2	25.0	2200

Reaction time (sec)

	40–49yr			50–59yr			60–69yr			70–79yr			80–yr			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
Male	0.406	0.061	270	0.435	0.076	290	0.451	0.082	284	0.512	0.123	260	0.582	0.119	16	0.452	0.097	1120
Female	0.448	0.065	259	0.462	0.071	279	0.491	0.089	264	0.581	0.138	235	0.610	0.164	13	0.494	0.108	1050
Total	0.427	0.066	529	0.448	0.075	569	0.470	0.088	548	0.545	0.134	495	0.594	0.139	29	0.472	0.104	2170

Leg extension power (W)

	40–49yr			50–59yr			60–69yr			70–79yr			80–yr			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
Male	704.3	176.3	269	596.7	144.9	289	505.7	130.0	282	379.7	130.4	255	280.3	80.6	16	545.3	189.0	1111
Female	364.8	97.9	258	337.2	97.3	277	293.7	87.4	260	223.3	83.7	226	206.6	74.9	16	306.3	105.9	1037
Total	538.1	222.2	527	469.7	179.4	566	404.0	153.9	542	306.2	135.6	481	243.4	85.2	32	429.9	195.3	2148

Sit up (reps/30sec)

	40–49yr			50–59yr			60–69yr			70–79yr			80–yr			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
Male	16	3.6	262	14	4.0	285	11	3.9	273	8	4.0	246	6	3.9	16	12	4.9	1082
Female	12	3.7	252	7	5.1	269	5	4.7	247	4	3.9	210	4	4.2	15	7	5.3	993
Total	14	4.3	514	11	5.6	554	8	5.2	520	6	4.6	456	5	4.0	31	10	5.7	2075

Right knee extension strength (kg)

	40–49yr			50–59yr			60–69yr			70–79yr			80–yr			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
Male	48.5	10.2	270	44.8	10.1	290	39.4	9.5	282	32.9	8.8	256	30.4	7.7	16	41.4	11.3	1114
Female	29.2	7.0	261	27.7	6.9	279	25.3	6.8	262	21.9	5.6	227	19.3	4.9	17	26.1	7.2	1046
Total	39.0	13.0	531	36.4	12.2	569	32.6	10.9	544	27.7	9.3	483	24.7	8.4	33	34.0	12.2	2160

Left knee extension strength (kg)

	40–49yr			50–59yr			60–69yr			70–79yr			80–yr			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
Male	47.1	9.6	270	43.7	10.1	289	38.1	9.3	283	31.9	8.0	255	28.9	5.8	16	40.2	10.9	1113
Female	28.6	6.6	261	27.0	7.4	276	24.5	6.4	264	21.2	5.9	229	20.0	5.4	17	25.4	7.2	1047
Total	38.0	12.4	531	35.5	12.2	565	31.5	10.5	547	26.9	8.9	484	24.3	7.1	33	33.0	11.9	2160

Maximum step length (cm)

	40-49yr			50-59yr			60-69yr			70-79yr			80-yr			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
Male	124.0	13.6	271	117.0	13.0	293	110.1	13.7	285	98.8	14.7	264	90.1	15.0	16	112.3	16.7	1129
Female	107.7	12.7	260	102.8	12.3	281	94.3	11.9	271	81.4	12.6	250	75.4	13.4	18	96.5	16.0	1080
Total	116.0	15.5	531	110.1	14.5	574	102.4	15.0	556	90.3	16.2	514	82.3	15.8	34	104.5	18.1	2209

2) Gait performance (Yagami corp.)

Step length of gait during comfortable velocity (cm)

	40-49yr			50-59yr			60-69yr			70-79yr			80-yr			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
Male	72.9	7.5	271	71.9	7.2	294	70.9	7.9	285	67.1	8.3	262	63.9	6.9	16	70.7	8.0	1128
Female	68.5	6.3	259	67.1	6.8	280	65.8	6.6	270	61.2	7.9	253	56.2	6.3	19	65.6	7.5	1081
Total	70.8	7.2	530	69.6	7.4	574	68.4	7.7	555	64.2	8.6	515	59.7	7.6	35	68.2	8.2	2209

Pitch of gait during comfortable velocity (step/min)

	40-49yr			50-59yr			60-69yr			70-79yr			80-yr			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
Male	115.2	9.9	271	115.5	9.7	294	115.0	10.1	285	113.0	11.6	262	108.2	12.9	16	114.6	10.4	1128
Female	121.1	9.6	259	122.5	11.0	280	121.3	11.2	270	116.3	11.1	253	113.0	14.8	19	120.2	11.1	1081
Total	118.1	10.2	530	119.0	10.9	574	118.0	11.1	555	114.6	11.5	515	110.8	14.0	35	117.4	11.1	2209

Velocity of gait during comfortable velocity (m/min)

	40-49yr			50-59yr			60-69yr			70-79yr			80-yr			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
Male	83.8	9.9	271	82.8	9.5	294	81.4	10.7	285	75.7	10.8	262	69.1	10.6	16	80.8	10.8	1128
Female	82.9	9.2	259	82.1	10.1	280	79.7	9.9	270	71.1	10.6	253	63.6	11.4	19	78.8	11.2	1081
Total	83.4	9.6	530	82.5	9.8	574	80.6	10.3	555	73.4	10.9	515	66.1	11.2	35	79.8	11.0	2209

Step length of gait during maximum velocity (cm)

	40-49yr			50-59yr			60-69yr			70-79yr			80-yr			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
Male	83.8	7.6	269	82.6	8.1	293	80.4	8.4	285	75.8	9.8	260	71.4	8.7	16	80.6	9.1	1123
Female	75.8	7.6	258	73.5	7.4	279	70.8	7.3	267	67.0	8.4	247	62.1	9.3	17	71.7	8.4	1068
Total	79.9	8.6	527	78.1	9.0	572	75.8	9.2	552	71.5	10.1	507	66.6	10.1	33	76.3	9.8	2191

Pitch of gait during maximum velocity (step/min)

	40-49yr			50-59yr			60-69yr			70-79yr			80-yr			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
Male	135.6	13.7	269	135.0	13.5	293	133.1	13.1	285	129.5	13.5	260	125.9	17.2	16	133.3	13.7	1123
Female	143.3	14.2	258	142.7	12.8	279	140.7	14.7	267	133.4	13.1	247	131.0	13.4	17	140.0	14.3	1068
Total	139.4	14.5	527	138.7	13.7	572	136.8	14.4	552	131.4	13.4	507	128.5	15.3	33	136.5	14.4	2191

Velocity of gait during maximum velocity (m/min)

	40–49yr			50–59yr			60–69yr			70–79yr			80–yr			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
Male	113.4	13.4	269	111.2	12.2	293	106.6	12.1	285	97.8	13.8	260	89.6	14.6	16	107.2	14.3	1123
Female	108.1	11.3	258	104.5	11.0	279	99.3	11.9	267	88.9	11.1	247	80.9	12.4	17	100.1	13.6	1068
Total	110.8	12.7	527	107.9	12.1	572	103.1	12.5	552	93.5	13.3	507	85.1	14.0	33	103.7	14.4	2191

3) Stabilometry (NEC corp.)

Stabilometry – out around area with eyes opened (cm²)

	40–49yr			50–59yr			60–69yr			70–79yr			80–yr			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
Male	2.13	1.12	271	2.17	1.08	294	2.71	2.19	289	3.38	2.31	269	3.20	1.62	17	2.60	1.83	1140
Female	1.76	0.80	261	1.99	0.93	284	2.44	1.17	271	2.73	1.70	259	3.29	1.71	20	2.25	1.27	1095
Total	1.95	0.99	532	2.08	1.01	578	2.58	1.77	560	3.06	2.06	528	3.25	1.65	37	2.43	1.59	2235

Stabilometry – total power spectram X with eyes opened (cm²)

	40–49yr			50–59yr			60–69yr			70–79yr			80–yr			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
Male	0.24	0.16	271	0.24	0.19	294	0.32	0.47	289	0.38	0.26	269	0.35	0.26	17	0.29	0.30	1140
Female	0.20	0.15	261	0.22	0.13	284	0.27	0.17	271	0.32	0.19	259	0.37	0.25	20	0.25	0.17	1095
Total	0.22	0.16	532	0.23	0.17	578	0.29	0.36	560	0.35	0.23	528	0.36	0.25	37	0.27	0.25	2235

Stabilometry – total power spectram Y with eyes opened (cm²)

	40–49yr			50–59yr			60–69yr			70–79yr			80–yr			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
Male	0.56	0.46	271	0.57	0.41	294	0.65	0.49	289	0.69	0.50	269	0.59	0.31	17	0.62	0.47	1140
Female	0.47	0.41	261	0.55	0.50	284	0.61	0.42	271	0.59	0.65	259	0.62	0.56	20	0.56	0.51	1095
Total	0.52	0.44	532	0.56	0.45	578	0.63	0.46	560	0.64	0.58	528	0.61	0.46	37	0.59	0.49	2235

Stabilometry – back and forth difference with eyes opened (cm)

	40–49yr			50–59yr			60–69yr			70–79yr			80–yr			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
Male	2.51	0.76	271	2.52	0.73	294	2.72	0.84	289	2.96	1.05	269	2.83	0.78	17	2.68	0.87	1140
Female	2.30	0.69	261	2.46	0.74	284	2.68	0.78	271	2.66	0.95	259	2.86	0.95	20	2.53	0.81	1095
Total	2.41	0.73	532	2.49	0.73	578	2.70	0.81	560	2.81	1.01	528	2.84	0.86	37	2.61	0.84	2235

Stabilometry – right and left difference with eyes opened (cm)

	40–49yr			50–59yr			60–69yr			70–79yr			80–yr			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
Male	1.86	0.57	271	1.84	0.56	294	2.13	0.90	289	2.41	0.84	269	2.24	0.62	17	2.06	0.77	1140
Female	1.70	0.47	261	1.77	0.47	284	1.97	0.56	271	2.17	0.65	259	2.45	0.96	20	1.91	0.58	1095
Total	1.78	0.53	532	1.81	0.52	578	2.05	0.76	560	2.29	0.76	528	2.35	0.82	37	1.99	0.69	2235

Stabilometry – total locus length with eyes opened (cm)

	40–49yr			50–59yr			60–69yr			70–79yr			80–yr			Total		
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	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
Male	74.5	16.1	271	75.8	16.3	294	82.1	19.9	289	96.0	28.4	269	97.6	22.1	17	82.2	22.3	1140
Female	66.4	10.3	261	71.2	12.3	284	76.4	14.6	271	83.0	19.5	259	90.8	21.3	20	74.5	16.0	1095
Total	70.5	14.1	532	73.5	14.7	578	79.3	17.8	560	89.6	25.3	528	94.0	21.6	37	78.4	19.9	2235

Stabilometry – out around area with eyes closed (cm²)

	40–49yr			50–59yr			60–69yr			70–79yr			80–yr			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
Male	3.68	2.12	270	3.83	2.18	294	5.05	5.76	289	6.06	4.64	269	5.76	2.02	17	4.66	4.09	1139
Female	2.80	1.49	261	3.29	1.67	284	4.29	2.89	271	4.70	3.54	258	4.92	3.33	20	3.78	2.65	1094
Total	3.25	1.89	531	3.57	1.96	578	4.68	4.61	560	5.40	4.19	527	5.31	2.80	37	4.23	3.49	2233

Stabilometry – total power spectram X with eyes closed (cm²)

	40–49yr			50–59yr			60–69yr			70–79yr			80–yr			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
Male	0.46	0.45	270	0.44	0.32	294	0.58	0.54	289	0.73	0.65	269	0.72	0.32	17	0.55	0.51	1139
Female	0.33	0.23	261	0.37	0.24	284	0.49	0.34	271	0.59	0.59	258	0.69	0.60	20	0.45	0.39	1094
Total	0.39	0.36	531	0.40	0.28	578	0.53	0.46	560	0.66	0.62	527	0.70	0.48	37	0.50	0.46	2233

Stabilometry – total power spectram Y with eyes closed (cm²)

	40–49yr			50–59yr			60–69yr			70–79yr			80–yr			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
Male	0.59	0.43	270	0.65	0.62	294	0.78	0.70	289	0.82	0.60	269	0.86	0.52	17	0.71	0.60	1139
Female	0.46	0.37	261	0.55	0.44	284	0.71	0.59	271	0.70	0.71	258	0.70	0.48	20	0.61	0.55	1094
Total	0.53	0.41	531	0.61	0.54	578	0.75	0.65	560	0.76	0.66	527	0.78	0.50	37	0.66	0.58	2233

Stabilometry – back and forth difference with eyes closed (cm)

	40–49yr			50–59yr			60–69yr			70–79yr			80–yr			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
Male	2.86	0.85	270	3.07	1.03	294	3.31	1.17	289	3.54	1.14	269	3.66	0.93	17	3.20	1.08	1139
Female	2.54	0.77	261	2.79	0.88	284	3.14	1.01	271	3.15	1.10	258	3.22	0.91	20	2.91	0.98	1094
Total	2.70	0.82	531	2.93	0.97	578	3.23	1.10	560	3.35	1.14	527	3.42	0.94	37	3.06	1.04	2233

Stabilometry – right and left difference with eyes closed (cm)

	40–49yr			50–59yr			60–69yr			70–79yr			80–yr			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
Male	2.61	0.88	270	2.56	0.84	294	2.93	1.16	289	3.32	1.28	269	3.44	0.86	17	2.86	1.09	1139
Female	2.21	0.70	261	2.38	0.74	284	2.71	0.99	271	2.93	1.16	258	3.25	1.24	20	2.57	0.96	1094
Total	2.41	0.82	531	2.47	0.80	578	2.82	1.08	560	3.13	1.24	527	3.34	1.07	37	2.72	1.04	2233

Stabilometry – total locus length with eyes closed (cm)

	40–49yr			50–59yr			60–69yr			70–79yr			80–yr			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
Male	103.9	29.9	270	108.2	32.9	294	121.4	52.3	289	148.5	67.6	269	149.9	46.6	17	120.7	50.9	1139
Female	85.8	19.9	261	93.5	23.5	284	105.0	30.8	271	117.1	42.9	258	127.9	51.6	20	100.7	33.1	1094
Total	95.0	27.1	531	101.0	29.6	578	113.5	43.9	560	133.1	58.9	527	138.0	49.9	37	110.9	44.3	2233

4) Physical activity accessed by electric pedometer

Electric pedometer, Suzuken corp.

Electric pedometer – total energy expenditure average (kcal)

	40–49yr			50–59yr			60–69yr			70–79yr			80–yr			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
Male	2152.7	194.2	238	2037.2	181.4	273	1901.0	207.5	274	1678.4	180.4	241	1565.7	199.1	13	1938.6	259.7	1039
Female	1711.4	159.9	239	1670.9	155.9	272	1582.5	154.6	253	1447.9	146.7	228	1300.5	139.6	14	1602.6	186.0	1006
Total	1931.6	283.5	477	1854.4	249.4	545	1748.1	243.2	527	1566.4	201.0	469	1428.2	215.1	27	1773.3	281.9	2045

Electric pedometer – energy expenditure average (kcal)

	40–49yr			50–59yr			60–69yr			70–79yr			80–yr			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
Male	257.6	112.1	238	245.4	102.7	273	219.4	120.4	274	161.5	94.9	241	163.3	96.7	13	220.8	113.9	1039
Female	195.5	74.7	239	198.0	83.3	272	174.6	82.9	253	125.7	65.4	228	115.1	67.1	14	174.0	82.4	1006
Total	226.5	100.1	477	221.7	96.4	545	197.9	106.4	527	144.1	83.8	469	138.3	84.7	27	197.8	102.3	2045

Electric pedometer – steps average (steps/day)

	40–49yr			50–59yr			60–69yr			70–79yr			80–yr			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
Male	8598	3234	238	8613	3113	273	8101	3765	274	6657	3396	241	6643	3335	13	7996	3475	1039
Female	8356	2679	239	8677	2901	272	7918	3231	253	6243	2698	228	6395	3228	14	7826	3038	1006
Total	8477	2968	477	8645	3006	545	8013	3517	527	6456	3081	469	6514	3218	27	7913	3268	2045

5) Physical activity questionnaire

Distribution of 4 categories of leisure–time physical activity

		40–49yr		50–59yr		60–69yr		70–79yr		80–yr		Total	
		N	%	N	%	N	%	N	%	N	%	N	%
2. 5METs	Male	101	37.0	169	57.1	195	67.0	198	72.0	14	82.4	677	58.8
	Female	88	33.7	142	50.0	162	59.8	155	57.6	18	81.8	565	51.0
	Total	189	35.4	311	53.6	357	63.5	353	64.9	32	82.1	1242	55.0
4. 5METs	Male	113	41.4	132	44.6	140	48.1	84	30.5	4	23.5	473	41.1
	Female	91	34.9	103	36.3	103	38.0	72	26.8	1	4.5	370	33.4
	Total	204	38.2	235	40.5	243	43.2	156	28.7	5	12.8	843	37.3
6. 5METs	Male	36	13.2	18	6.1	14	4.8	2	0.7	1	5.9	71	6.2
	Female	14	5.4	5	1.8	3	1.1	1	0.4	0	0	23	2.1
	Total	50	9.4	23	4.0	17	3.0	3	0.6	1	2.6	94	4.2
8. 5METs	Male	2	0.7	2	0.7	2	0.7	1	0.4	0	0	7	0.6
	Female	1	0.4	0	0	0	0	0	0	0	0	1	0.1
	Total	3	0.6	2	0.3	2	0.4	1	0.2	0	0	8	0.4
Total	Male	273	100.0	296	100.0	291	100.0	275	100.0	17	100.0	1152	100.0
	Female	261	100.0	284	100.0	271	100.0	269	100.0	22	100.0	1107	100.0
	Total	534	100.0	580	100.0	562	100.0	544	100.0	39	100.0	2259	100.0

Leisure–time physical activity score (2.5METs) (METs*min/1000/year)

	40–49yr			50–59yr			60–69yr			70–79yr			80–yr			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
Male	6.4	14.9	272	12.2	18.4	295	27.7	38.1	291	32.9	42.5	275	38.1	40.2	17	20.1	32.8	1150
Female	7.2	14.9	261	12.6	19.4	283	16.6	26.6	271	19.6	34.5	269	45.6	62.2	22	14.7	26.9	1106
Total	6.8	14.9	533	12.4	18.9	578	22.4	33.5	562	26.4	39.3	544	42.3	53.2	39	17.4	30.2	2256

Leisure-time physical activity score (4.5METs) (METs*min/1000/year)

	40–49yr			50–59yr			60–69yr			70–79yr			80–yr			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
Male	12.0	23.4	272	16.7	30.1	295	27.5	47.0	291	18.6	44.2	275	6.7	15.9	17	18.6	37.7	1150
Female	12.1	24.5	261	11.0	21.6	283	16.0	31.9	271	9.8	24.1	269	2.1	9.7	22	12.0	25.7	1106
Total	12.1	23.9	533	13.9	26.4	578	21.9	40.8	562	14.3	35.9	544	4.1	12.8	39	15.4	32.5	2256

Leisure-time physical activity score (6.5METs) (METs*min/1000/year)

	40–49yr			50–59yr			60–69yr			70–79yr			80–yr			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
Male	4.6	18.0	272	3.1	16.2	295	2.0	11.6	291	0.4	4.2	275	2.2	9.1	17	2.5	13.6	1150
Female	1.8	11.1	261	0.9	8.7	283	0.9	9.7	271	0.1	1.1	269	0.0	0.0	22	0.9	8.5	1106
Total	3.2	15.1	533	2.0	13.1	578	1.5	10.7	562	0.2	3.1	544	1.0	6.0	39	1.7	11.4	2256

Leisure-time physical activity score (8.5METs) (METs*min/1000/year)

	40–49yr			50–59yr			60–69yr			70–79yr			80–yr			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
Male	0.1	0.9	272	1.0	14.5	295	0.0	0.2	291	0.1	0.9	275	0.0	0.0	17	0.3	7.4	1150
Female	0.1	1.5	261	0.0	0.0	283	0.0	0.0	271	0.0	0.0	269	0.0	0.0	22	0.0	0.7	1106
Total	0.1	1.2	533	0.5	10.4	578	0.0	0.2	562	0.0	0.6	544	0.0	0.0	39	0.2	5.3	2256

Leisure-time physical activity score (METs*min/1000/year)

	40–49yr			50–59yr			60–69yr			70–79yr			80–yr			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
Male	23.1	33.5	272	33.0	44.3	295	57.2	61.3	291	52.0	57.5	275	47.0	42.7	17	41.5	52.1	1150
Female	21.2	33.1	261	24.6	30.3	283	33.5	41.8	271	29.5	42.2	269	47.6	62.4	22	27.6	38.2	1106
Total	22.1	33.3	533	28.9	38.3	578	45.8	54.1	562	40.9	51.7	544	47.3	54.0	39	34.7	46.3	2256

Time spent on the leisure-time physical activity (hour/year)

	40–49yr			50–59yr			60–69yr			70–79yr			80–yr			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
Male	99.0	144.8	272	153.0	179.0	295	292.6	304.6	291	289.5	309.7	275	284.2	268.7	17	210.2	259.8	1150
Female	97.4	150.6	261	127.8	151.1	283	172.2	208.6	271	167.4	247.2	269	311.4	414.1	22	144.8	203.3	1106
Total	98.3	147.6	533	140.6	166.3	578	234.6	269.3	562	229.1	286.9	544	299.6	354.1	39	178.1	236.1	2256

Leisure-time physical activity score (METs*min/1000/day)

	40–49yr			50–59yr			60–69yr			70–79yr			80–yr			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
Male	0.07	0.10	272	0.10	0.13	295	0.17	0.18	291	0.15	0.17	275	0.14	0.13	17	0.12	0.16	1150
Female	0.06	0.10	261	0.07	0.09	283	0.10	0.12	271	0.09	0.13	269	0.14	0.19	22	0.08	0.11	1106

Total	0.07	0.10	533	0.09	0.11	578	0.14	0.16	562	0.12	0.15	544	0.14	0.16	39	0.10	0.14	2256
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Time spent on the leisure-time physical activity (hour/day)

	40–49yr			50–59yr			60–69yr			70–79yr			80–yr			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
Male	0.3	0.4	272	0.5	0.5	295	0.9	0.9	291	0.9	0.9	275	0.8	0.8	17	0.6	0.8	1150
Female	0.3	0.4	261	0.4	0.4	283	0.5	0.6	271	0.5	0.7	269	0.9	1.2	22	0.4	0.6	1106
Total	0.3	0.4	533	0.4	0.5	578	0.7	0.8	562	0.7	0.9	544	0.9	1.1	39	0.5	0.7	2256

Distribution of 4 categories of the job physical activity

		40–49yr		50–59yr		60–69yr		70–79yr		80–yr		Total	
		N	%	N	%	N	%	N	%	N	%	N	%
1. 5METs	Male	268	98.2	293	99.0	226	77.7	146	53.1	7	41.2	940	81.6
	Female	255	97.7	269	94.7	240	88.6	189	70.3	13	59.1	966	87.3
	Total	523	97.9	562	96.9	466	82.9	335	61.6	20	51.3	1906	84.4
2. 5METs	Male	254	93.0	271	91.6	242	83.2	193	70.2	11	64.7	971	84.3
	Female	261	100.0	283	99.6	270	99.6	268	99.6	22	100.0	1104	99.7
	Total	515	96.4	554	95.5	512	91.1	461	84.7	33	84.6	2075	91.9
4. 5METs	Male	81	29.7	75	25.3	105	36.1	104	37.8	6	35.3	371	32.2
	Female	168	64.4	200	70.4	196	72.3	187	69.5	15	68.2	766	69.2
	Total	249	46.6	275	47.4	301	53.6	291	53.5	21	53.8	1137	50.3
7. 5METs	Male	26	9.5	26	8.8	15	5.2	11	4.0	0	0	78	6.8
	Female	4	1.5	3	1.1	2	0.7	3	1.1	2	9.1	14	1.3
	Total	30	5.6	29	5.0	17	3.0	14	2.6	2	5.1	92	4.1
Total	Male	273	100.0	296	100.0	291	100.0	275	100.0	17	100.0	1152	100.0
	Female	261	100.0	284	100.0	271	100.0	269	100.0	22	100.0	1107	100.0
	Total	534	100.0	580	100.0	562	100.0	544	100.0	39	100.0	2259	100.0

On the job physical activity score (1.5METs) (METs*min/1000/year)

	40–49yr			50–59yr			60–69yr			70–79yr			80–yr			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
Male	146.2	78.0	272	137.8	80.6	295	52.1	65.3	291	14.3	32.3	275	8.5	23.8	17	86.7	87.1	1150
Female	57.9	56.1	261	54.8	62.0	283	27.5	38.7	271	17.0	32.6	269	14.1	24.9	22	38.8	51.7	1106
Total	102.9	81.2	533	97.2	83.1	578	40.2	55.5	562	15.6	32.5	544	11.6	24.3	39	63.2	75.8	2256

On the job physical activity score (2.5METs) (METs*min/1000/year)

	40–49yr			50–59yr			60–69yr			70–79yr			80–yr			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
Male	124.2	103.7	272	127.7	105.4	295	88.2	99.3	291	48.1	66.8	275	49.7	57.8	17	96.7	100.1	1150
Female	238.5	97.0	261	233.5	105.9	283	175.8	94.1	271	152.7	90.0	269	133.0	76.1	22	198.9	103.6	1106
Total	180.2	115.5	533	179.5	118.1	578	130.4	106.2	562	99.9	94.8	544	96.7	79.7	39	146.8	113.9	2256

On the job physical activity score (4.5METs) (METs*min/1000/year)

	40–49yr			50–59yr			60–69yr			70–79yr			80–yr			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
Male	31.7	91.8	272	31.1	86.9	295	38.2	99.3	291	24.8	64.0	275	15.3	24.4	17	31.3	86.1	1150
Female	20.0	40.3	261	28.3	57.9	283	31.8	62.6	271	28.5	67.3	269	13.7	21.5	22	27.0	57.7	1106
Total	26.0	71.6	533	29.8	74.1	578	35.1	83.6	562	26.7	65.7	544	14.4	22.5	39	29.2	73.6	2256

On the job physical activity score (7.5METs) (METs*min/1000/year)

	40-49yr			50-59yr			60-69yr			70-79yr			80-yr			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
Male	9.4	37.9	272	6.6	29.4	295	2.9	24.6	291	1.2	11.5	275	0.0	0.0	17	5.0	27.5	1150
Female	1.3	16.9	261	0.2	2.2	283	0.1	1.8	271	0.3	3.4	269	0.6	2.9	22	0.5	8.5	1106
Total	5.4	29.8	533	3.5	21.3	578	1.6	17.8	562	0.8	8.5	544	0.4	2.2	39	2.8	20.6	2256

On the job physical activity score (METs*min/1000/year)

	40–49yr			50–59yr			60–69yr			70–79yr			80–yr			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
Male	311.5	112.2	272	303.3	104.9	295	181.4	150.3	291	88.5	105.5	275	73.4	72.2	17	219.6	151.0	1150
Female	317.7	104.9	261	316.8	122.8	283	235.2	116.9	271	198.5	112.8	269	161.4	89.1	22	265.2	125.9	1106
Total	314.5	108.6	533	309.9	114.1	578	207.3	137.7	562	142.9	122.2	544	123.1	92.4	39	241.9	141.1	2256

Time spent on the job (hour/year)

	40–49yr			50–59yr			60–69yr			70–79yr			80–yr			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
Male	2595.7	589.2	272	2512.8	627.4	295	1321.1	995.0	291	574.3	670.0	275	481.8	512.5	17	1737.3	1124	1150
Female	2312.2	752.9	261	2270.6	869.7	283	1595.8	763.6	271	1313.4	723.4	269	1095.3	582.7	22	1858.9	891.7	1106
Total	2456.8	688.5	533	2394.2	764.8	578	1453.6	900.7	562	939.8	788.4	544	827.8	627.1	39	1796.9	1018	2256

On the job physical activity score (METs*min/1000/day)

	40–49yr			50–59yr			60–69yr			70–79yr			80–yr			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
Male	0.93	0.33	272	0.90	0.31	295	0.54	0.45	291	0.26	0.31	275	0.22	0.21	17	0.65	0.45	1150
Female	0.95	0.31	261	0.94	0.37	283	0.70	0.35	271	0.59	0.34	269	0.48	0.27	22	0.79	0.37	1106
Total	0.94	0.32	533	0.92	0.34	578	0.62	0.41	562	0.43	0.36	544	0.37	0.28	39	0.72	0.42	2256

Time spent on the job (hour/day)

	40-49yr			50-59yr			60-69yr			70-79yr			80-yr			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
Male	7.7	1.8	272	7.5	1.9	295	3.9	3.0	291	1.7	2.0	275	1.4	1.5	17	5.2	3.3	1150
Female	6.9	2.2	261	6.8	2.6	283	4.7	2.3	271	3.9	2.2	269	3.3	1.7	22	5.5	2.7	1106
Total	7.3	2.0	533	7.1	2.3	578	4.3	2.7	562	2.8	2.3	544	2.5	1.9	39	5.3	3.0	2256

Residual physical activity score (METs*min/1000/year)

	40–49yr			50–59yr			60–69yr			70–79yr			80–yr			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
Male	275.0	51.8	272	272.4	57.5	295	346.9	80.3	291	397.9	63.7	275	383.8	60.0	17	323.5	82.9	1150
Female	310.3	67.5	261	300.4	74.9	283	337.9	68.0	271	353.6	68.4	269	380.6	71.9	22	326.5	73.3	1106
Total	292.3	62.5	533	286.1	68.0	578	342.5	74.7	562	376.0	69.6	544	382.0	66.1	39	325.0	78.3	2256

Time spent on residual physical activity (hour/day)

[illegible]

Male	9.1	1.7	272	9.0	1.9	295	11.5	2.7	291	13.2	2.1	275	12.7	2.0	17	10.7	2.7	1150
Female	10.3	2.2	261	9.9	2.5	283	11.2	2.2	271	11.7	2.3	269	12.6	2.4	22	10.8	2.4	1106
Total	9.7	2.1	533	9.5	2.2	578	11.3	2.5	562	12.4	2.3	544	12.6	2.2	39	10.7	2.6	2256

Sleeping time (hour/day)

	40–49yr			50–59yr			60–69yr			70–79yr			80–yr			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
Male	6.9	0.8	272	7.1	1.0	295	7.7	1.1	291	8.3	1.2	275	9.0	1.7	17	7.5	1.2	1150
Female	6.6	0.9	261	6.9	0.9	283	7.6	1.1	271	7.9	1.2	269	7.2	1.1	22	7.2	1.2	1106
Total	6.7	0.9	533	7.0	1.0	578	7.6	1.1	562	8.1	1.2	544	8.0	1.7	39	7.4	1.2	2256

Sleep activity score (METs*min/1000/year)

	40–49yr			50–59yr			60–69yr			70–79yr			80–yr			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
Male	104.1	12.4	272	106.7	15.4	295	116.8	16.7	291	125.1	17.4	275	136.5	26.1	17	113.5	18.0	1150
Female	99.3	13.8	261	104.8	13.5	283	114.4	17.0	271	119.4	18.7	269	109.3	17.0	22	109.5	17.7	1106
Total	101.7	13.3	533	105.8	14.5	578	115.6	16.8	562	122.3	18.3	544	121.2	25.2	39	111.5	17.9	2256

Total physical activity score (METs*min/1000/year)

	40–49yr			50–59yr			60–69yr			70–79yr			80–yr			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
Male	713.7	90.2	272	715.4	84.4	295	702.3	85.6	291	663.4	62.6	275	640.7	43.8	17	698.1	83.8	1150
Female	748.5	55.4	261	746.5	63.4	283	721.0	62.9	271	701.1	62.6	269	698.9	41.3	22	728.7	64.0	1106
Total	730.7	77.1	533	730.6	76.4	578	711.3	76.0	562	682.0	65.4	544	673.5	51.1	39	713.1	76.3	2256

Total physical activity score (METs*min/1000/day)

	40–49yr			50–59yr			60–69yr			70–79yr			80–yr			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
Male	2.12	0.27	272	2.13	0.25	295	2.09	0.25	291	1.97	0.19	275	1.91	0.13	17	2.08	0.25	1150
Female	2.23	0.16	261	2.22	0.19	283	2.15	0.19	271	2.09	0.19	269	2.08	0.12	22	2.17	0.19	1106
Total	2.17	0.23	533	2.17	0.23	578	2.12	0.23	562	2.03	0.19	544	2.00	0.15	39	2.12	0.23	2256

Annual intensity index (METs)

	40–49yr			50–59yr			60–69yr			70–79yr			80–yr			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
Male	1.5	0.2	272	1.5	0.2	295	1.5	0.2	291	1.4	0.1	275	1.3	0.1	17	1.4	0.2	1150
Female	1.5	0.1	261	1.5	0.1	283	1.5	0.1	271	1.4	0.1	269	1.4	0.1	22	1.5	0.1	1106
Total	1.5	0.2	533	1.5	0.2	578	1.5	0.2	562	1.4	0.1	544	1.4	0.1	39	1.5	0.2	2256

Annual active intensity index (METs)

	40–49yr			50–59yr			60–69yr			70–79yr			80–yr			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
Male	1.8	0.3	272	1.8	0.3	295	1.8	0.3	291	1.7	0.2	275	1.7	0.1	17	1.8	0.2	1150
Female	1.8	0.1	261	1.9	0.2	283	1.8	0.2	271	1.8	0.2	269	1.7	0.1	22	1.8	0.2	1106
Total	1.8	0.2	533	1.8	0.2	578	1.8	0.2	562	1.7	0.2	544	1.7	0.1	39	1.8	0.2	2256