

## Heart Rate (HR) (/min)

	40 - 49yr			50 - 59yr			60 - 69yr			70 - 79yr			80yr -			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
Male	60.8	9.2	132	60.7	9.1	103	61.6	9.6	151	64.1	12.7	126	61.3	13.8	26	61.8	10.5	538
Female	64.4	10.6	137	62.8	8.3	131	61.8	9.7	135	64.7	10.1	112	64.2	8.7	20	63.4	9.7	535
Total	62.6	10.1	269	61.9	8.7	234	61.7	9.6	286	64.3	11.6	238	62.5	11.8	46	62.6	10.1	1073

4. Intima-media thickness of carotid artery

Intima-media Thickness of Left Common Carotid Artery (the Thickest Point) (mm)

	40 - 49yr			50 - 59yr			60 - 69yr			70 - 79yr			80yr -			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
Male	0.72	0.20	132	0.83	0.30	103	0.96	0.39	151	1.02	0.32	126	1.27	1.10	26	0.91	0.41	538
Female	0.65	0.16	137	0.76	0.20	131	0.88	0.23	135	1.05	0.54	112	1.38	1.24	20	0.85	0.42	535
Total	0.69	0.19	269	0.79	0.25	234	0.92	0.33	286	1.03	0.43	238	1.32	1.15	46	0.88	0.42	1073

Intima-media Thickness of Left Common Carotid Artery (the Thinnest Point) (mm)

	40 - 49yr			50 - 59yr			60 - 69yr			70 - 79yr			80yr -			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
Male	0.54	0.15	132	0.59	0.15	103	0.63	0.14	151	0.68	0.17	126	0.77	0.26	26	0.62	0.17	538
Female	0.50	0.12	137	0.56	0.13	131	0.63	0.16	135	0.70	0.20	112	0.71	0.13	20	0.60	0.17	535
Total	0.52	0.13	269	0.58	0.14	234	0.63	0.15	286	0.69	0.19	238	0.75	0.21	46	0.61	0.17	1073

Intima-media Thickness of Left Carotid Sinus (the Thickest Point) (mm)

	40 - 49yr			50 - 59yr			60 - 69yr			70 - 79yr			80yr -			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
Male	0.98	0.32	132	1.07	0.33	102	1.28	0.54	151	1.47	0.58	126	1.58	0.75	26	1.23	0.52	537
Female	0.88	0.27	135	1.07	0.35	131	1.13	0.35	135	1.33	0.61	111	1.70	0.89	20	1.11	0.47	532
Total	0.93	0.30	267	1.07	0.34	233	1.21	0.46	286	1.40	0.60	237	1.63	0.80	46	1.17	0.50	1069

Intima-media Thickness of Left Carotid Sinus (the Thinnest Point) (mm)

	40 - 49yr			50 - 59yr			60 - 69yr			70 - 79yr			80yr -			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
Male	0.64	0.17	132	0.70	0.19	102	0.74	0.21	151	0.82	0.25	126	0.86	0.24	26	0.73	0.22	537
Female	0.59	0.16	135	0.66	0.19	131	0.71	0.20	135	0.79	0.24	111	0.94	0.30	20	0.69	0.22	532
Total	0.62	0.16	267	0.68	0.19	233	0.73	0.21	286	0.81	0.24	237	0.89	0.27	46	0.71	0.22	1069

Intima-media Thickness of Right Common Carotid Artery (the Thickest Point) (mm)

	40 - 49yr			50 - 59yr			60 - 69yr			70 - 79yr			80yr -			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
Male	0.64	0.15	132	0.73	0.17	102	0.87	0.34	151	0.95	0.35	126	1.00	0.24	26	0.81	0.30	537
Female	0.63	0.16	137	0.71	0.20	131	0.81	0.22	135	0.92	0.23	112	0.98	0.19	20	0.77	0.23	535
Total	0.63	0.16	269	0.72	0.18	233	0.84	0.29	286	0.94	0.30	238	0.99	0.21	46	0.79	0.27	1072

Intima-media Thickness of Right Common Carotid Artery (the Thinnest Point) (mm)

	40 - 49yr			50 - 59yr			60 - 69yr			70 - 79yr			80yr -			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
Male	0.48	0.11	132	0.53	0.11	102	0.60	0.15	151	0.65	0.17	126	0.74	0.18	26	0.58	0.16	537
Female	0.49	0.12	137	0.53	0.11	131	0.57	0.15	135	0.62	0.14	112	0.69	0.11	20	0.55	0.14	535
Total	0.48	0.12	269	0.53	0.11	233	0.59	0.15	286	0.64	0.15	238	0.72	0.16	46	0.56	0.15	1072

Intima-media Thickness of Right Carotid Sinus (the Thickest Point) (mm)

	40 - 49yr			50 - 59yr			60 - 69yr			70 - 79yr			80yr -			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
Male	0.95	0.26	132	1.14	0.44	103	1.25	0.52	151	1.41	0.61	125	1.65	0.98	26	1.21	0.55	537
Female	0.85	0.24	137	1.00	0.30	131	1.13	0.36	135	1.32	0.56	111	1.54	0.68	20	1.08	0.43	534
Total	0.90	0.25	269	1.06	0.37	234	1.20	0.46	286	1.37	0.59	236	1.60	0.86	46	1.15	0.50	1071

Intima-media Thickness of Right Carotid Sinus (the Thinnest Point) (mm)

	40 - 49yr			50 - 59yr			60 - 69yr			70 - 79yr			80yr -			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
Male	0.64	0.20	132	0.70	0.21	103	0.72	0.21	151	0.78	0.27	125	0.88	0.30	26	0.72	0.23	537
Female	0.58	0.14	137	0.65	0.18	131	0.71	0.22	135	0.76	0.24	111	0.88	0.28	20	0.68	0.21	534
Total	0.61	0.17	269	0.67	0.20	234	0.71	0.21	286	0.77	0.25	236	0.88	0.29	46	0.70	0.22	1071

# X. Physical Function Tests and Physical Activities

## X. Physical function Tests

### 1) Physical fitness

Sitting trunk flexion

Right grip strength

Left grip strength

One leg standing with eyes closed

One leg standing with eyes open (65 years and over)

Reaction time

Leg extension power

Sit up

Right knee extension strength

Left knee extension strength

### 2) Gait performance

Step length, pitch and velocity during comfortable walking

Step length, pitch and velocity during maximum walking

### 3) Three-dimensional motion of gait during 1 cycle

### 4) Stabilometry

With eyes open

With eyes closed

### 5) Physical activity

### 6) 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	3.7	8.3	132	3.1	8.9	102	2.4	9.4	148	0.8	9.2	121	3.8	7.9	25	2.6	9.0	528
Female	9.4	7.4	134	10.6	6.5	127	10.2	7.6	131	9.1	6.6	108	11.2	5.9	16	9.9	7.0	516
Total	6.6	8.3	266	7.3	8.5	229	6.1	9.5	279	4.7	9.1	229	6.6	8.0	41	6.2	8.9	1044

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	44.5	6.4	132	42.3	6.2	103	37.1	5.8	149	32.7	5.8	120	29.1	5.5	25	38.6	7.8	529
Female	26.9	5.0	135	24.4	4.9	129	23.3	3.9	133	20.6	4.1	111	19.3	3.8	17	23.8	5.1	525
Total	35.6	10.5	267	32.3	10.5	232	30.6	8.5	282	26.9	7.9	231	25.1	6.8	42	31.2	9.9	1054

Left 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	43.1	6.3	131	40.8	6.1	103	35.9	6.4	151	31.7	5.6	121	27.6	6.0	25	37.3	7.8	531
Female	25.6	4.5	136	23.1	4.7	128	22.2	3.6	132	19.5	4.1	111	17.5	3.4	17	22.6	4.8	524
Total	34.2	10.3	267	31.0	10.3	231	29.5	8.6	283	25.9	7.8	232	23.5	7.1	42	30.0	9.8	1055

Foot balance with eye 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	40.1	44.7	132	24.9	33.2	103	9.9	12.3	150	4.7	5.9	119	3.1	1.5	24	18.9	31.0	528
Female	30.6	39.8	135	18.6	22.1	128	7.7	8.5	134	4.2	3.4	108	3.4	1.5	14	15.5	25.6	519
Total	35.3	42.5	267	21.4	27.7	231	8.9	10.7	284	4.5	4.9	227	3.2	1.5	38	17.2	28.5	1047

Foot balance with eye opened (sec) 65 years and older

	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	.	.	0	124.2	61.5	82	54.6	58.4	119	21.9	31.3	24	76.5	68.4	225
Female	.	.	0	.	.	0	89.5	65.9	67	46.8	50.2	108	14.7	12.0	15	59.3	59.4	190
Total	.	.	0	.	.	0	108.6	65.6	149	50.9	54.7	227	19.1	25.7	39	68.6	64.9	415

## 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	0.398	0.05	132	0.422	0.07	103	0.446	0.08	149	0.508	0.12	115	0.666	0.25	24	0.453	0.11	523
Female	0.450	0.07	136	0.453	0.06	127	0.467	0.08	133	0.548	0.13	105	0.627	0.29	12	0.479	0.10	513
Total	0.424	0.07	268	0.439	0.07	230	0.456	0.08	282	0.527	0.12	220	0.653	0.26	36	0.466	0.11	1036

## 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	599.8	160.3	125	553.4	130.0	97	452.8	103.0	139	359.0	111.4	103	225.9	96.3	21	481.1	163.9	485
Female	313.7	112.9	126	295.1	84.3	116	276.3	84.3	117	209.1	71.2	83	187.0	69.9	9	277.4	98.4	451
Total	456.2	199.1	251	412.7	167.7	213	372.1	129.4	256	292.1	121.2	186	214.2	89.9	30	383.0	170.1	936

## Sit up (reps)

	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	17	3.8	132	14	4.4	103	11	4.7	151	7	5.1	126	4	3.6	26	12	6.1	538
Female	11	5.0	137	7	5.5	131	5	5.1	135	3	3.9	112	3	3.3	20	6	5.8	535
Total	14	5.3	269	10	6.1	234	8	5.7	286	5	5.0	238	3	3.5	46	9	6.5	1073

## Right leg 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	44.7	9.7	125	41.9	7.2	96	37.3	8.7	138	29.9	7.2	103	23.6	3.8	21	38.0	10.3	483
Female	27.6	6.2	127	25.5	6.2	118	24.2	6.4	117	20.8	6.0	82	17.9	4.0	9	24.7	6.6	453
Total	36.1	11.8	252	32.9	10.5	214	31.3	10.1	255	25.8	8.1	185	21.9	4.6	30	31.6	10.9	936

## Left leg 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	43.9	10.2	124	40.3	7.7	97	36.5	8.0	139	29.3	7.6	102	23.0	3.5	21	37.1	10.2	483
Female	27.3	6.6	126	24.8	6.5	119	24.4	6.3	117	20.2	5.7	81	18.3	4.1	9	24.4	6.8	452
Total	35.5	12.0	250	31.8	10.5	216	31.0	9.5	256	25.3	8.2	183	21.6	4.2	30	31.0	10.8	935

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	127.5	11.6	132	122.4	12.6	103	112.6	11.5	150	101.0	12.6	119	92.6	12.3	25	114.7	16.2	529
Female	108.6	12.0	136	105.4	11.5	130	98.7	10.6	133	87.2	9.8	106	75.6	14.4	17	99.9	14.3	522
Total	117.9	15.1	268	112.9	14.6	233	106.1	13.1	283	94.5	13.3	225	85.7	15.5	42	107.3	17.0	1051



2) Gait performance (Yagami corp.)

Step length of gait with comfortable speed (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	74.2	7.2	132	73.1	7.0	103	71.9	8.7	150	66.7	9.6	120	64.4	9.1	25	71.2	8.8	530
Female	68.0	6.8	136	67.2	7.4	130	67.5	6.7	134	62.0	9.0	106	57.9	9.8	17	66.1	8.0	523
Total	71.1	7.6	268	69.8	7.8	233	69.8	8.1	284	64.5	9.6	226	61.8	9.8	42	68.7	8.8	1053

Pitch of gait with comfortable speed (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	112.8	11.6	132	116.8	8.7	103	117.2	10.1	150	113.6	10.7	120	112.0	10.4	25	115.0	10.5	530
Female	121.8	9.7	136	122.4	11.5	130	123.4	9.3	134	117.4	13.4	106	112.2	14.0	17	121.2	11.3	523
Total	117.4	11.6	268	119.9	10.7	233	120.1	10.2	284	115.4	12.2	226	112.1	11.8	42	118.0	11.4	1053

Velocity of gait with comfortable speed (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	83.4	10.1	132	85.3	9.1	103	84.0	10.8	150	75.8	12.7	120	72.1	11.8	25	81.7	11.5	530
Female	82.7	9.2	136	82.1	10.6	130	83.2	9.0	134	72.4	11.4	106	64.7	11.8	17	80.0	11.2	523
Total	83.1	9.6	268	83.5	10.1	233	83.6	9.9	284	74.2	12.2	226	69.1	12.2	42	80.9	11.4	1053

Step length of gait with maximum speed (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	87.6	8.9	131	85.7	8.9	103	83.8	9.1	148	77.0	11.7	117	72.8	8.4	24	83.1	10.6	523
Female	76.1	7.0	136	75.7	8.3	129	74.2	8.2	132	67.2	8.9	106	61.8	8.3	14	73.3	8.9	517
Total	81.7	9.8	267	80.2	9.9	232	79.3	9.9	280	72.3	11.6	223	68.8	9.8	38	78.2	10.9	1040

Pitch of gait with maximum speed (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	131.9	16.1	131	134.7	12.4	103	133.0	12.3	148	130.2	13.9	117	126.2	14.3	24	132.1	13.9	523
Female	145.3	15.0	136	140.4	13.9	129	140.8	12.0	132	135.5	16.9	106	135.9	16.2	14	140.7	14.8	517
Total	138.7	16.9	267	137.8	13.5	232	136.7	12.7	280	132.7	15.6	223	129.8	15.6	38	136.4	15.0	1040

Velocity of gait with maximum speed (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	115.0	14.1	131	115.3	13.3	103	111.2	11.8	148	100.1	17.2	117	91.6	12.0	24	109.5	15.6	523
Female	110.0	10.4	136	105.8	12.1	129	104.1	10.7	132	90.5	13.6	106	83.4	11.6	14	102.7	13.9	517
Total	112.4	12.6	267	110.0	13.5	232	107.8	11.8	280	95.5	16.3	223	88.6	12.4	38	106.2	15.2	1040

3) Three-dimensional motion of gait during 1 cycle

mean velocity at stance phase during comfortable walking (m/sec)

	40~49yr			50~59yr			60~69yr			70~79yr			80~89yr			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
Male	1.58	0.16	130	1.59	0.17	102	1.57	0.20	148	1.43	0.20	116	1.35	0.22	23	1.54	0.20	519
Female	1.59	0.17	130	1.55	0.19	127	1.55	0.18	132	1.39	0.18	100	1.26	0.17	14	1.52	0.20	503
Total	1.59	0.16	260	1.56	0.18	229	1.56	0.19	280	1.41	0.19	216	1.32	0.21	37	1.53	0.20	1022

mean velocity at swing phase during comfortable walking (m/sec)

	40~49yr			50~59yr			60~69yr			70~79yr			80~89yr			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
Male	1.53	0.17	125	1.53	0.17	103	1.51	0.20	148	1.38	0.20	115	1.31	0.22	23	1.48	0.20	514
Female	1.54	0.17	126	1.49	0.19	125	1.49	0.18	130	1.35	0.18	100	1.21	0.18	14	1.47	0.20	495
Total	1.53	0.17	251	1.51	0.18	228	1.50	0.19	278	1.37	0.19	215	1.27	0.21	37	1.47	0.20	1009

mean velocity at 1 cycle during comfortable walking (m/sec)

	40~49yr			50~59yr			60~69yr			70~79yr			80~89yr			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
Male	1.56	0.16	130	1.57	0.17	103	1.55	0.20	149	1.41	0.20	117	1.33	0.22	23	1.52	0.20	522
Female	1.57	0.17	131	1.53	0.19	128	1.52	0.18	132	1.37	0.18	101	1.24	0.17	14	1.50	0.19	506
Total	1.57	0.17	261	1.55	0.18	231	1.54	0.19	281	1.39	0.19	218	1.30	0.20	37	1.51	0.20	1028

step length during comfortable walking (m)

	40~49yr			50~59yr			60~69yr			70~79yr			80~89yr			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
Male	0.78	0.07	125	0.76	0.06	100	0.75	0.08	147	0.70	0.08	116	0.66	0.06	23	0.74	0.08	511
Female	0.71	0.06	127	0.69	0.06	125	0.69	0.07	127	0.64	0.07	96	0.61	0.07	14	0.68	0.07	489
Total	0.74	0.07	252	0.72	0.07	225	0.72	0.08	274	0.67	0.08	212	0.64	0.06	37	0.71	0.08	1000

step frequency during comfortable walking (Hz)

	40~49yr			50~59yr			60~69yr			70~79yr			80~89yr			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
Male	2.02	0.13	125	2.06	0.13	100	2.05	0.14	146	2.01	0.15	115	2.01	0.20	23	2.03	0.14	509
Female	2.21	0.16	126	2.20	0.16	125	2.21	0.16	127	2.15	0.19	96	2.05	0.16	14	2.19	0.17	488
Total	2.12	0.17	251	2.14	0.16	225	2.12	0.17	273	2.07	0.19	211	2.02	0.19	37	2.11	0.17	997

stance time during comfortable walking (sec)

	40~49yr			50~59yr			60~69yr			70~79yr			80~89yr			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
Male	0.67	0.05	131	0.65	0.07	102	0.65	0.05	149	0.68	0.06	118	0.69	0.07	23	0.66	0.06	523
Female	0.62	0.04	133	0.63	0.05	128	0.62	0.05	133	0.65	0.06	101	0.66	0.06	14	0.63	0.05	509
Total	0.64	0.05	264	0.64	0.06	230	0.64	0.05	282	0.67	0.06	219	0.68	0.07	37	0.65	0.06	1032

swing time during comfortable walking (sec)

	40~49yr			50~59yr			60~69yr			70~79yr			80~89yr			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
Male	0.37	0.02	130	0.38	0.08	102	0.37	0.07	149	0.37	0.09	117	0.37	0.05	23	0.37	0.07	521
Female	0.35	0.14	132	0.35	0.07	128	0.35	0.08	132	0.37	0.14	101	0.34	0.03	14	0.35	0.11	507
Total	0.36	0.10	262	0.36	0.07	230	0.36	0.07	281	0.37	0.12	218	0.36	0.04	37	0.36	0.09	1028

double support time at late stance phase during comfortable walking (sec)

	40~49yr			50~59yr			60~69yr			70~79yr			80~89yr			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
Male	0.16	0.02	131	0.15	0.02	102	0.15	0.02	147	0.16	0.02	116	0.16	0.03	23	0.15	0.02	519
Female	0.14	0.02	133	0.14	0.02	127	0.14	0.02	132	0.16	0.02	101	0.16	0.03	14	0.15	0.02	507
Total	0.15	0.02	264	0.15	0.02	229	0.15	0.02	279	0.16	0.02	217	0.16	0.03	37	0.15	0.02	1026

cycle duration during comfortable walking (sec)

	40~49yr			50~59yr			60~69yr			70~79yr			80~89yr			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
Male	1.04	0.06	130	1.03	0.12	102	1.02	0.09	149	1.06	0.11	117	1.06	0.10	23	1.04	0.10	521
Female	0.98	0.15	132	0.97	0.08	128	0.97	0.10	132	1.02	0.16	101	1.01	0.08	14	0.98	0.13	507
Total	1.01	0.12	262	1.00	0.10	230	1.00	0.10	281	1.04	0.14	218	1.04	0.10	37	1.01	0.12	1028

stance time during comfortable walking (% of 1 cycle)

	40~49yr			50~59yr			60~69yr			70~79yr			80~89yr			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
Male	64.2	1.9	130	63.3	4.2	102	63.9	3.3	149	64.9	3.6	117	64.9	2.6	23	64.1	3.3	521
Female	64.3	4.6	132	64.5	3.5	128	64.1	3.7	132	64.4	6.1	101	65.6	2.0	14	64.4	4.4	507
Total	64.2	3.5	262	64.0	3.9	230	64.0	3.5	281	64.7	4.9	218	65.1	2.4	37	64.2	3.9	1028

swing time during comfortable walking (% of 1 cycle)

	40~49yr			50~59yr			60~69yr			70~79yr			80~89yr			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
Male	35.8	1.9	130	36.7	4.2	102	36.1	3.3	149	35.1	3.6	117	35.1	2.6	23	35.9	3.3	521
Female	35.7	4.6	132	35.5	3.5	128	35.9	3.7	132	35.6	6.1	101	34.4	2.0	14	35.6	4.4	507
Total	35.8	3.5	262	36.0	3.9	230	36.0	3.5	281	35.3	4.9	218	34.9	2.4	37	35.8	3.9	1028

double support time at late stance phase during comfortable walking (% of 1 cycle)

	40~49yr			50~59yr			60~69yr			70~79yr			80~89yr			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
Male	15.0	1.4	121	14.6	1.6	98	14.7	1.6	140	15.1	1.8	109	15.0	1.7	21	14.9	1.6	489
Female	14.9	1.8	125	14.9	1.7	118	14.7	1.6	119	15.6	2.0	93	15.8	2.0	12	15.0	1.8	467
Total	14.9	1.6	246	14.8	1.6	216	14.7	1.6	259	15.3	1.9	202	15.3	1.8	33	14.9	1.7	956

range of motion at hip joint in stance phase during comfortable walking (deg)

	40~49yr			50~59yr			60~69yr			70~79yr			80~89yr			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
Male	46.7	4.4	124	46.7	4.9	97	47.3	6.0	138	45.0	5.4	112	42.5	4.0	21	46.3	5.3	492
Female	44.6	4.4	126	45.0	4.7	116	45.6	5.8	122	44.6	5.9	95	42.0	5.0	13	44.9	5.2	472
Total	45.6	4.5	250	45.8	4.8	213	46.5	6.0	260	44.8	5.6	207	42.3	4.3	34	45.6	5.3	964

range of motion at hip joint in swing phase during comfortable walking (deg)

	40~49yr			50~59yr			60~69yr			70~79yr			80~89yr			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
Male	38.9	4.8	130	38.9	5.4	99	39.7	6.1	148	36.6	6.0	115	34.2	5.5	23	38.4	5.8	515
Female	37.4	4.6	129	37.6	5.5	126	38.6	5.8	131	37.2	6.5	98	34.5	4.9	14	37.7	5.6	498
Total	38.2	4.7	259	38.2	5.4	225	39.2	6.0	279	36.9	6.2	213	34.3	5.2	37	38.0	5.7	1013

range of motion at hip joint in 1 cycle during comfortable walking (deg)

	40~49yr			50~59yr			60~69yr			70~79yr			80~89yr			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
Male	49.4	4.0	123	49.4	4.4	97	49.7	5.3	137	47.3	5.0	111	44.7	4.6	21	48.8	4.9	489
Female	47.0	4.1	126	47.3	4.3	116	48.1	5.3	121	47.4	5.3	93	44.6	5.6	13	47.3	4.8	469
Total	48.2	4.2	249	48.2	4.4	213	48.9	5.4	258	47.3	5.1	204	44.7	4.9	34	48.1	4.9	958

range of motion at knee joint in stance phase during comfortable walking (deg)

	40~49yr			50~59yr			60~69yr			70~79yr			80~89yr			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
Male	37.6	5.8	123	38.3	6.5	97	36.5	5.5	136	38.9	5.6	110	39.0	4.7	20	37.8	5.8	486
Female	39.1	5.3	120	37.9	6.9	113	36.2	6.4	117	37.9	7.3	89	36.6	5.1	13	37.7	6.5	452
Total	38.3	5.6	243	38.1	6.7	210	36.4	5.9	253	38.5	6.4	199	38.1	5.0	33	37.8	6.1	938

range of motion at knee joint in swing phase during comfortable walking (deg)

	40~49yr			50~59yr			60~69yr			70~79yr			80~89yr			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
Male	63.9	4.7	130	64.4	4.2	98	63.4	4.5	147	63.1	4.4	114	61.4	6.5	22	63.6	4.6	511
Female	63.6	4.2	129	63.7	6.6	124	62.6	4.5	130	61.6	7.5	97	61.2	3.9	14	62.9	5.8	494
Total	63.7	4.5	259	64.0	5.7	222	63.0	4.5	277	62.4	6.1	211	61.3	5.6	36	63.2	5.2	1005

range of motion at knee joint in 1 cycle during comfortable walking (deg)

	40~49yr			50~59yr			60~69yr			70~79yr			80~89yr			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
Male	65.2	4.1	122	65.7	4.1	96	64.6	4.2	135	64.1	4.3	109	61.9	5.7	19	64.7	4.3	481
Female	64.9	4.1	120	64.6	6.6	112	63.7	4.3	119	63.7	5.7	89	61.3	3.9	13	64.2	5.2	453
Total	65.0	4.1	242	65.1	5.6	208	64.2	4.3	254	63.9	5.0	198	61.7	5.0	32	64.5	4.8	934

range of motion at ankle joint in stance phase during comfortable walking (deg)

	40~49yr			50~59yr			60~69yr			70~79yr			80~89yr			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
Male	31.5	5.4	120	29.8	3.8	96	30.2	5.4	135	28.2	4.6	111	28.3	5.4	20	29.9	5.1	482
Female	33.1	5.2	117	32.8	5.4	113	32.7	6.0	117	30.2	5.9	89	28.4	4.5	13	32.2	5.7	449
Total	32.3	5.3	237	31.5	5.0	209	31.4	5.8	252	29.1	5.3	200	28.3	5.0	33	31.0	5.5	931

range of motion at ankle joint in swing phase during comfortable walking (deg)

	40~49yr			50~59yr			60~69yr			70~79yr			80~89yr			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
Male	22.7	5.4	129	22.2	5.4	97	22.4	6.0	147	18.8	5.6	114	16.8	5.2	22	21.4	5.9	509
Female	25.8	5.0	127	24.8	5.9	123	25.3	6.1	127	20.8	5.0	96	19.2	5.4	14	24.2	5.9	487
Total	24.2	5.4	256	23.7	5.9	220	23.7	6.2	274	19.7	5.4	210	17.8	5.4	36	22.8	6.1	996

range of motion at ankle joint in 1 cycle during comfortable walking (deg)

	40~49yr			50~59yr			60~69yr			70~79yr			80~89yr			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
Male	34.8	5.3	119	32.7	3.9	93	33.1	5.2	134	30.3	4.8	109	29.8	6.4	19	32.7	5.2	474
Female	36.1	5.0	115	35.3	5.4	111	35.3	5.8	115	32.9	6.1	87	30.3	5.1	13	34.9	5.7	441
Total	35.5	5.2	234	34.1	4.9	204	34.1	5.5	249	31.5	5.5	196	30.0	5.8	32	33.7	5.5	915

peak extensor torque at ankle during comfortable walking (Nm)

	40~49yr			50~59yr			60~69yr			70~79yr			80~89yr			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
Male	95.8	19.1	112	95.4	25.3	86	88.3	17.3	125	81.7	14.9	107	72.1	12.7	22	89.1	20.0	452
Female	71.8	16.8	112	69.2	13.7	111	66.4	15.0	113	63.8	11.9	76	53.6	4.9	11	67.8	14.9	423
Total	83.8	21.6	224	80.6	23.5	197	77.9	19.5	238	74.3	16.3	183	65.9	13.8	33	78.8	20.7	875

mean velocity at stance phase during maximal walking (m/sec)

	40~49yr			50~59yr			60~69yr			70~79yr			80~89yr			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
Male	2.10	0.22	128	2.11	0.23	96	1.99	0.22	137	1.82	0.27	111	1.68	0.25	23	1.99	0.27	495
Female	2.02	0.21	130	1.93	0.21	129	1.89	0.19	131	1.68	0.22	103	1.47	0.18	11	1.88	0.24	504
Total	2.06	0.22	258	2.00	0.24	225	1.94	0.21	268	1.75	0.25	214	1.61	0.25	34	1.93	0.26	999

mean velocity at swing phase during maximal walking (m/sec)

	40~49yr			50~59yr			60~69yr			70~79yr			80~89yr			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
Male	2.08	0.25	123	2.10	0.27	99	1.96	0.23	138	1.77	0.28	113	1.63	0.28	23	1.96	0.29	496
Female	2.00	0.22	129	1.89	0.22	127	1.85	0.21	129	1.63	0.21	101	1.42	0.16	11	1.84	0.26	497
Total	2.04	0.24	252	1.98	0.26	226	1.91	0.23	267	1.71	0.26	214	1.56	0.27	34	1.90	0.28	993

mean velocity at 1 cycle during maximal walking (m/sec)

	40~49yr			50~59yr			60~69yr			70~79yr			80~89yr			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
Male	2.10	0.23	128	2.11	0.25	98	1.98	0.22	140	1.80	0.27	113	1.66	0.26	23	1.98	0.28	502
Female	2.01	0.22	133	1.91	0.21	129	1.87	0.20	130	1.66	0.21	103	1.45	0.17	11	1.87	0.25	506
Total	2.06	0.23	261	2.00	0.25	227	1.93	0.22	270	1.73	0.25	216	1.59	0.25	34	1.92	0.27	1008

step length during maximal walking (m)

	40~49yr			50~59yr			60~69yr			70~79yr			80~89yr			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
Male	0.87	0.07	124	0.85	0.07	93	0.84	0.08	135	0.78	0.08	111	0.74	0.07	23	0.83	0.08	486
Female	0.75	0.06	129	0.75	0.06	128	0.73	0.07	129	0.68	0.08	103	0.64	0.06	11	0.73	0.07	500
Total	0.81	0.09	253	0.79	0.08	221	0.79	0.09	264	0.74	0.10	214	0.71	0.08	34	0.78	0.09	986

step frequency during maximal walking (Hz)

	40~49yr			50~59yr			60~69yr			70~79yr			80~89yr			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
Male	2.42	0.23	122	2.46	0.26	91	2.36	0.20	134	2.29	0.22	110	2.24	0.24	23	2.37	0.24	480
Female	2.68	0.33	129	2.56	0.21	128	2.56	0.24	128	2.43	0.25	102	2.26	0.17	11	2.56	0.28	498
Total	2.55	0.31	251	2.52	0.24	219	2.46	0.24	262	2.36	0.24	212	2.25	0.22	34	2.47	0.27	978

stance time during maximal walking (sec)

	40~49yr			50~59yr			60~69yr			70~79yr			80~89yr			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
Male	0.53	0.07	129	0.53	0.08	96	0.56	0.06	138	0.59	0.06	112	0.60	0.07	23	0.55	0.07	498
Female	0.52	0.05	131	0.53	0.05	129	0.53	0.04	131	0.57	0.05	104	0.61	0.04	11	0.54	0.05	506
Total	0.52	0.06	260	0.53	0.07	225	0.55	0.05	269	0.58	0.06	216	0.60	0.06	34	0.55	0.06	1004

swing time during maximal walking (sec)

	40~49yr			50~59yr			60~69yr			70~79yr			80~89yr			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
Male	0.34	0.07	127	0.33	0.06	94	0.34	0.04	137	0.33	0.05	110	0.39	0.18	23	0.34	0.07	491
Female	0.31	0.08	131	0.32	0.08	129	0.33	0.11	130	0.33	0.11	103	0.32	0.02	11	0.32	0.09	504
Total	0.33	0.08	258	0.33	0.07	223	0.33	0.08	267	0.33	0.08	213	0.37	0.15	34	0.33	0.08	995

double support time at late stance phase during maximal walking (sec)

	40~49yr			50~59yr			60~69yr			70~79yr			80~89yr			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
Male	0.10	0.16	118	0.09	0.17	87	0.12	0.02	129	0.13	0.02	109	0.13	0.02	23	0.12	0.11	466
Female	0.11	0.02	131	0.12	0.02	127	0.12	0.02	130	0.13	0.02	103	0.14	0.01	11	0.12	0.02	502
Total	0.11	0.11	249	0.11	0.11	214	0.12	0.02	259	0.13	0.02	212	0.14	0.02	34	0.12	0.08	968



cycle duration during maximal walking (sec)

	40~49yr			50~59yr			60~69yr			70~79yr			80~89yr			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
Male	0.87	0.11	127	0.83	0.27	95	0.90	0.08	137	0.92	0.09	110	0.99	0.20	23	0.89	0.15	492
Female	0.83	0.09	131	0.86	0.10	129	0.86	0.12	130	0.90	0.13	103	0.92	0.05	11	0.86	0.11	504
Total	0.85	0.10	258	0.85	0.19	224	0.88	0.10	267	0.91	0.11	213	0.97	0.17	34	0.87	0.14	996

stance time during maximal walking (% of 1 cycle)

	40~49yr			50~59yr			60~69yr			70~79yr			80~89yr			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
Male	61.1	5.0	127	61.1	6.6	94	62.6	2.9	137	63.6	3.1	110	61.8	7.4	23	62.1	4.8	491
Female	62.6	4.3	131	62.5	4.2	129	62.6	5.7	130	64.0	5.3	103	65.8	1.9	11	62.9	4.9	504
Total	61.8	4.7	258	61.9	5.4	223	62.6	4.5	267	63.8	4.3	213	63.1	6.4	34	62.5	4.8	995

swing time during maximal walking (% of 1 cycle)

	40~49yr			50~59yr			60~69yr			70~79yr			80~89yr			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
Male	38.9	5.0	127	38.9	6.6	94	37.4	2.9	137	36.4	3.1	110	38.2	7.4	23	37.9	4.8	491
Female	37.4	4.3	131	37.5	4.2	129	37.4	5.7	130	36.0	5.3	103	34.2	1.9	11	37.1	4.9	504
Total	38.2	4.7	258	38.1	5.4	223	37.4	4.5	267	36.2	4.3	213	36.9	6.4	34	37.5	4.8	995

double support time at late stance phase during maximal walking (% of 1 cycle)

	40~49yr			50~59yr			60~69yr			70~79yr			80~89yr			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
Male	12.2	18.3	113	13.1	7.0	81	14.0	1.8	122	14.3	1.9	104	13.8	2.5	21	13.4	9.9	441
Female	13.6	1.7	125	14.0	1.8	125	14.2	2.1	124	14.7	2.0	98	15.8	1.4	10	14.1	1.9	482
Total	12.9	12.7	238	13.6	4.6	206	14.1	1.9	246	14.5	1.9	202	14.5	2.4	31	13.8	7.0	923

range of motion at hip joint in stance phase during maximal walking (deg)

	40~49yr			50~59yr			60~69yr			70~79yr			80~89yr			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
Male	52.8	6.1	126	52.3	7.9	93	52.7	6.6	127	50.1	6.4	106	48.3	5.7	22	51.9	6.8	474
Female	49.0	4.8	130	49.0	5.6	122	49.0	6.5	124	47.8	6.6	98	45.5	5.4	9	48.7	5.9	483
Total	50.9	5.8	256	50.4	6.9	215	50.9	6.8	251	49.0	6.6	204	47.5	5.7	31	50.3	6.5	957

range of motion at hip joint in swing phase during maximal walking (deg)

	40~49yr			50~59yr			60~69yr			70~79yr			80~89yr			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
Male	46.2	6.3	128	45.9	6.0	97	45.7	7.6	138	42.8	7.3	112	40.6	7.7	23	45.0	7.1	498
Female	42.2	5.2	128	42.7	6.3	128	43.0	6.9	129	40.8	6.9	103	36.5	6.5	11	42.1	6.4	499
Total	44.2	6.1	256	44.1	6.4	225	44.4	7.4	267	41.9	7.2	215	39.3	7.5	34	43.6	6.9	997

range of motion at hip joint in 1 cycle during maximal walking (deg)

	40~49yr			50~59yr			60~69yr			70~79yr			80~89yr			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
Male	55.1	5.1	127	54.5	5.1	94	54.8	6.2	128	52.1	6.2	106	50.0	6.0	22	54.0	5.9	477
Female	51.1	4.7	128	51.2	5.1	121	51.4	6.1	122	50.5	6.0	97	46.6	5.1	9	51.0	5.5	477
Total	53.1	5.3	255	52.6	5.4	215	53.1	6.4	250	51.3	6.2	203	49.0	5.9	31	52.5	5.9	954

range of motion at knee joint in stance phase during maximal walking (deg)

	40~49yr			50~59yr			60~69yr			70~79yr			80~89yr			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
Male	31.5	6.1	121	31.6	5.9	92	32.6	5.7	123	34.4	6.3	103	33.9	7.1	19	32.6	6.1	458
Female	32.8	5.3	123	32.7	6.9	118	31.8	6.2	122	34.5	6.9	91	36.3	6.5	8	32.9	6.4	462
Total	32.2	5.7	244	32.2	6.5	210	32.2	5.9	245	34.4	6.6	194	34.6	6.9	27	32.7	6.2	920

range of motion at knee joint in swing phase during maximal walking (deg)

	40~49yr			50~59yr			60~69yr			70~79yr			80~89yr			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
Male	60.7	6.6	122	61.4	5.2	94	61.8	5.0	134	62.0	5.7	109	61.1	5.3	22	61.4	5.6	481
Female	60.3	4.5	125	60.1	6.9	124	60.5	4.7	127	61.8	5.4	99	55.2	14.4	11	60.5	5.8	486
Total	60.5	5.6	247	60.6	6.2	218	61.1	4.9	261	61.9	5.5	208	59.1	9.5	33	61.0	5.8	967

range of motion at knee joint in 1 cycle during maximal walking (deg)

	40~49yr			50~59yr			60~69yr			70~79yr			80~89yr			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
Male	63.9	5.5	116	64.4	4.4	90	64.1	5.1	119	63.9	5.4	101	62.6	5.6	19	64.0	5.2	445
Female	63.8	4.5	118	63.1	6.7	114	62.9	4.1	118	63.3	5.2	91	60.0	3.3	9	63.2	5.2	450
Total	63.9	5.0	234	63.7	5.8	204	63.5	4.6	237	63.6	5.3	192	61.7	5.0	28	63.6	5.2	895

range of motion at ankle joint in stance phase during maximal walking (deg)

	40~49yr			50~59yr			60~69yr			70~79yr			80~89yr			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
Male	36.6	8.4	118	34.5	8.1	87	35.7	8.0	120	30.9	7.1	102	30.2	6.1	20	34.4	8.2	447
Female	38.3	6.1	117	36.7	6.4	116	36.9	8.1	121	32.4	6.0	90	33.0	5.1	8	36.2	7.0	452
Total	37.5	7.4	235	35.8	7.2	203	36.3	8.0	241	31.6	6.6	192	31.0	5.9	28	35.3	7.7	899

range of motion at ankle joint in swing phase during maximal walking (deg)

	40~49yr			50~59yr			60~69yr			70~79yr			80~89yr			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
Male	29.9	7.2	121	29.5	6.6	91	29.1	8.0	132	23.3	7.8	107	23.4	8.2	22	27.8	8.0	473
Female	32.7	6.0	124	31.2	7.5	123	31.0	8.0	125	25.7	6.2	97	21.4	6.8	11	30.2	7.6	480
Total	31.3	6.8	245	30.5	7.2	214	30.0	8.1	257	24.5	7.2	204	22.8	7.7	33	29.0	7.9	953

range of motion at ankle joint in 1 cycle during maximal walking (deg)

	40~49yr			50~59yr			60~69yr			70~79yr			80~89yr			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
Male	38.8	7.4	112	36.6	6.0	82	37.3	7.5	114	32.5	6.7	98	31.5	6.0	19	36.2	7.4	425
Female	40.2	5.8	112	38.9	6.5	111	38.8	7.4	115	33.9	5.6	86	33.4	5.3	8	38.1	6.8	432
Total	39.5	6.7	224	37.9	6.4	193	38.0	7.5	229	33.2	6.2	184	32.1	5.8	27	37.2	7.1	857

peak extensor torque at ankle during maximal walking (Nm)

	40~49yr			50~59yr			60~69yr			70~79yr			80~89yr			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
Male	96.3	23.2	98	92.7	24.5	76	84.4	22.1	116	81.2	19.4	88	67.6	15.9	19	87.4	23.2	397
Female	67.9	14.6	115	65.9	13.7	105	62.1	13.7	112	59.5	13.4	77	47.6	6.1	7	63.9	14.3	416
Total	81.0	23.7	213	77.2	23.1	181	73.5	21.5	228	71.1	20.1	165	62.2	16.5	26	75.4	22.4	813

4) Stabilometry (NEC Co.)

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	3.12	1.45	132	3.09	1.36	102	3.38	1.47	150	4.27	1.96	125	4.64	2.33	26	3.53	1.70	535
Female	2.60	1.08	137	2.81	1.09	131	3.34	1.62	135	3.56	1.89	110	4.29	1.57	19	3.10	1.50	532
Total	2.85	1.30	269	2.93	1.22	233	3.36	1.54	285	3.94	1.95	235	4.50	2.03	45	3.31	1.62	1067

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	0.42	0.28	132	0.39	0.21	102	0.43	0.26	150	0.56	0.36	125	0.64	0.42	26	0.46	0.30	535
Female	0.34	0.20	137	0.37	0.20	131	0.43	0.30	135	0.50	0.32	110	0.54	0.23	19	0.41	0.27	532
Total	0.38	0.25	269	0.38	0.21	233	0.43	0.28	285	0.53	0.34	235	0.60	0.36	45	0.44	0.29	1067

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	0.73	0.57	132	0.68	0.46	102	0.69	0.48	150	0.84	0.62	125	0.70	0.33	26	0.73	0.53	535
Female	0.61	0.37	137	0.68	0.52	131	0.66	0.51	135	0.66	0.52	110	0.63	0.42	19	0.65	0.48	532
Total	0.67	0.48	269	0.68	0.49	233	0.68	0.49	285	0.76	0.58	235	0.67	0.37	45	0.69	0.51	1067

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	2.85	0.87	132	2.86	0.94	102	2.92	0.80	150	3.14	0.86	125	3.00	0.69	26	2.95	0.86	535
Female	2.64	0.69	137	2.80	0.82	131	2.84	0.82	135	2.88	0.93	110	2.93	0.75	19	2.79	0.81	532
Total	2.74	0.79	269	2.83	0.87	233	2.88	0.81	285	3.02	0.90	235	2.97	0.71	45	2.87	0.84	1067

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	2.44	0.65	132	2.44	0.61	102	2.55	0.61	150	2.90	0.87	125	3.23	1.03	26	2.62	0.74	535
Female	2.20	0.61	137	2.32	0.57	131	2.52	0.67	135	2.64	0.81	110	2.96	0.65	19	2.43	0.69	532
Total	2.32	0.64	269	2.37	0.59	233	2.53	0.64	285	2.78	0.85	235	3.12	0.89	45	2.52	0.72	1067