

IV. Physical Function Tests

1) Physical fitness

(Digital dynamometer, TKK5401, Takei Scientific Instruments Co., Ltd.)

Right grip strength
Left grip strength

2) Gait performance

(Walking analysis system, YW-3, YAGAMI Inc.)

Step length, pitch and velocity at comfortable speed

1) Physical fitness

Right grip strength (kg)

	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	46.5	6.9	135	45.2	6.1	250	42.4	6.5	294	36.9	6.5	246	30.8	6.0	121	41.0	8.1	1046
Female	28.7	4.4	148	27.4	4.9	274	25.8	4.5	263	23.3	4.1	237	19.9	4.9	127	25.3	5.3	1049
Total	37.2	10.6	283	35.9	10.5	524	34.6	10.1	557	30.2	8.8	483	25.2	7.7	248	33.1	10.4	2095

Left grip strength (kg)

	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	44.1	7.0	135	43.2	6.2	250	40.4	6.2	294	35.2	6.6	246	29.3	6.1	121	39.0	7.9	1046
Female	27.3	4.0	149	25.7	4.9	272	24.2	4.5	262	22.0	4.2	236	18.7	4.7	126	23.9	5.2	1045
Total	35.3	10.1	284	34.1	10.3	522	32.8	9.7	556	28.8	8.6	482	23.9	7.6	247	31.5	10.1	2091

2) Gait performance

Step length of gait with comfortable speed (cm)

	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	76.7	7.6	135	75.2	7.4	249	73.1	7.5	294	69.0	8.5	240	61.2	9.5	114	71.8	9.2	1032
Female	69.7	6.1	148	69.2	7.0	274	67.4	7.0	264	64.0	7.7	234	57.1	9.0	109	66.3	8.2	1029
Total	73.0	7.7	283	72.1	7.8	523	70.4	7.8	558	66.6	8.5	474	59.2	9.5	223	69.1	9.1	2061

Pitch of gait with comfortable speed (step/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	115.6	8.8	135	115.3	7.6	249	115.9	8.6	294	115.0	8.1	240	114.0	10.2	114	115.3	8.5	1032
Female	119.7	7.4	148	121.1	8.7	274	122.1	9.2	264	121.6	9.1	234	115.9	10.7	109	120.7	9.2	1029
Total	117.8	8.3	283	118.3	8.7	523	118.8	9.4	558	118.3	9.2	474	114.9	10.5	223	118.0	9.2	2061

Velocity of gait with comfortable speed (m/min)

	40-49yr			50-59yr			60-69yr			70-79yr			80yr-			Total		
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	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
Male	88.4	9.5	135	86.7	9.7	249	84.5	9.2	294	79.3	10.2	240	69.7	12.2	114	82.7	11.4	1032
Female	83.5	9.5	148	83.8	9.8	274	82.1	9.9	264	77.7	10.3	234	66.3	12.2	109	80.1	11.4	1029
Total	85.9	9.8	283	85.2	9.8	523	83.4	9.6	558	78.5	10.3	474	68.0	12.3	223	81.4	11.5	2061