

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	166.5	89.0	185	141.1	80.4	156	71.1	76.8	162	15.6	29.6	170	10.7	29.1	52	93.1	94.1	725
Female	67.9	59.9	195	55.7	61.6	148	35.6	52.5	158	17.4	29.3	167	18.7	28.1	52	43.0	54.9	720
Total	115.9	90.1	380	99.5	83.5	304	53.6	68.2	320	16.5	29.5	337	14.7	28.7	104	68.2	81.0	1445

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	117.5	115.9	185	112.9	91.8	156	75.0	78.1	162	58.5	75.4	170	40.6	57.4	52	87.6	94.3	725
Female	212.7	86.8	195	216.0	97.2	148	182.4	104.4	158	136.5	78.3	167	103.7	78.8	52	181.2	98.1	720
Total	166.3	112.5	380	163.1	107.5	304	128.0	106.4	320	97.1	86.1	337	72.1	75.6	104	134.2	106.9	1445

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	63.4	149.4	185	49.1	121.5	156	38.6	108.3	162	13.2	49.2	170	10.6	43.5	52	39.2	111.9	725
Female	28.9	64.2	195	21.3	39.8	148	20.6	39.6	158	21.0	53.2	167	7.7	12.8	52	22.1	49.7	720
Total	45.7	115.1	380	35.6	92.3	304	29.7	82.3	320	17.0	51.3	337	9.1	31.9	104	30.7	87.1	1445

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	5.6	26.1	185	9.7	44.1	156	3.4	15.7	162	4.3	34.7	170	0.4	3.0	52	5.3	30.6	725
Female	2.5	20.4	195	1.6	12.7	148	0.5	3.4	158	0.1	0.7	167	0.0	0.0	52	1.1	12.2	720
Total	4.0	23.4	380	5.7	33.0	304	1.9	11.5	320	2.2	24.7	337	0.2	2.1	104	3.2	23.4	1445

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	353.1	140.2	185	312.7	108.3	156	188.1	145.1	162	91.5	122.1	170	62.2	94.1	52	225.3	168.9	725
Female	311.9	105.9	195	294.6	112.0	148	239.1	117.5	158	174.9	102.1	167	130.2	90.3	52	247.5	124.1	720
Total	332.0	125.3	380	303.9	110.3	304	213.2	134.4	320	132.8	119.9	337	96.2	97.9	104	236.3	148.7	1445

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	2880.7	627.9	185	2523.1	558.1	156	1440.0	1035	162	621.3	735.5	170	429.2	580.9	52	1776.2	1207	725
Female	2284.5	719.0	195	2141.2	833.3	148	1689.2	845.8	158	1180.6	663.5	167	927.9	634.0	52	1770.4	895.2	720
Total	2574.8	738.3	380	2337.2	729.9	304	1563.0	952.9	320	898.5	753.6	337	678.6	654.9	104	1773.3	1063	1445

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	1.05	0.42	185	0.93	0.32	156	0.56	0.43	162	0.27	0.36	170	0.19	0.28	52	0.67	0.50	725
Female	0.93	0.32	195	0.88	0.33	148	0.71	0.35	158	0.52	0.30	167	0.39	0.27	52	0.74	0.37	720
Total	0.99	0.37	380	0.90	0.33	304	0.63	0.40	320	0.40	0.36	337	0.29	0.29	104	0.70	0.44	1445

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	8.6	1.9	185	7.5	1.7	156	4.3	3.1	162	1.8	2.2	170	1.3	1.7	52	5.3	3.6	725
Female	6.8	2.1	195	6.4	2.5	148	5.0	2.5	158	3.5	2.0	167	2.8	1.9	52	5.3	2.7	720
Total	7.7	2.2	380	7.0	2.2	304	4.7	2.8	320	2.7	2.2	337	2.0	1.9	104	5.3	3.2	1445

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	260.5	49.2	185	280.1	49.1	156	343.8	87.4	162	400.3	69.7	170	404.0	54.6	52	326.4	86.8	725
Female	316.6	63.6	195	316.6	69.9	148	340.2	63.8	158	371.6	56.4	167	387.3	57.2	52	339.7	67.8	720
Total	289.3	63.6	380	297.9	62.7	304	342.1	76.6	320	386.1	64.9	337	395.7	56.3	104	333.0	78.2	1445

Time spent on residual 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	8.6	1.6	185	9.3	1.6	156	11.4	2.9	162	13.2	2.3	170	13.4	1.8	52	10.8	2.9	725
Female	10.5	2.1	195	10.5	2.3	148	11.3	2.1	158	12.3	1.9	167	12.8	1.9	52	11.2	2.2	720
Total	9.6	2.1	380	9.8	2.1	304	11.3	2.5	320	12.8	2.1	337	13.1	1.9	104	11.0	2.6	1445

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	6.6	0.9	185	6.9	0.9	156	7.5	1.1	162	8.0	1.1	170	8.6	1.4	52	7.3	1.2	725
Female	6.6	0.9	195	6.8	0.9	148	7.2	1.2	158	7.6	1.2	167	8.0	1.0	52	7.1	1.1	720
Total	6.6	0.9	380	6.8	0.9	304	7.3	1.1	320	7.8	1.1	337	8.3	1.2	104	7.2	1.2	1445

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	100.2	13.5	185	104.3	13.7	156	113.4	16.1	162	121.0	16.6	170	130.6	20.6	52	111.1	18.2	725
Female	99.3	13.5	195	102.5	14.2	148	108.7	17.6	158	115.6	17.5	167	121.1	15.4	52	107.4	17.3	720
Total	99.7	13.5	380	103.4	13.9	304	111.1	17.0	320	118.3	17.2	337	125.9	18.7	104	109.2	17.8	1445

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	729.0	116.8	185	719.0	95.0	156	700.0	85.8	162	666.7	71.0	170	634.7	57.2	52	699.0	96.4	725
Female	740.4	63.2	195	737.9	57.5	148	722.2	60.7	158	695.3	57.6	167	662.3	44.5	52	719.8	63.4	720
Total	734.9	93.2	380	728.2	79.4	304	710.9	75.2	320	680.9	66.2	337	648.5	52.8	104	709.4	82.3	1445

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	2.17	0.35	185	2.14	0.28	156	2.08	0.26	162	1.98	0.21	170	1.89	0.17	52	2.08	0.29	725
Female	2.20	0.19	195	2.20	0.17	148	2.15	0.18	158	2.07	0.17	167	1.97	0.13	52	2.14	0.19	720
Total	2.19	0.28	380	2.17	0.24	304	2.12	0.22	320	2.03	0.20	337	1.93	0.16	104	2.11	0.24	1445

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	185	1.5	0.2	156	1.4	0.2	162	1.4	0.1	170	1.3	0.1	52	1.4	0.2	725
Female	1.5	0.1	195	1.5	0.1	148	1.5	0.1	158	1.4	0.1	167	1.4	0.1	52	1.5	0.1	720
Total	1.5	0.2	380	1.5	0.2	304	1.5	0.2	320	1.4	0.1	337	1.3	0.1	104	1.5	0.2	1445

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	185	1.8	0.3	156	1.8	0.3	162	1.7	0.2	170	1.6	0.1	52	1.7	0.3	725
Female	1.8	0.2	195	1.8	0.1	148	1.8	0.1	158	1.8	0.1	167	1.7	0.1	52	1.8	0.2	720
Total	1.8	0.3	380	1.8	0.2	304	1.8	0.2	320	1.7	0.2	337	1.7	0.1	104	1.8	0.2	1445

X. Anthropometry and Body Composition

X. Anthropometry and Body composition

1) Anthropometric measurements

Height, Weight, Length, Circumference

2) Body composition

(Dual energy x-ray absorptiometry, QDR4500A; Hologic)

3) Thickness of subcutaneous fat and thickness of muscle

(Ultrasound scanner, ECHOPAL; Hitachi Medical Corp.)

4) Intra-abdominal fat area and subcutaneous fat area at umbilicus level

(CT scan, SCT-6800TX; Shimadzu, Fat Scan; N2 Corp.)

1) Anthropometric measurements
Height, Weight, Length, Circumference

Height (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	170.4	6.3	104	167.5	6.0	80	164.7	5.3	73	162.0	5.1	83	158.2	5.2	28	165.8	6.8	368
Female	156.5	4.9	91	154.3	5.4	76	152.8	4.5	74	149.1	5.4	88	144.6	6.0	26	152.6	6.2	355
Total	163.9	9.0	195	161.0	8.7	156	158.7	7.7	147	155.3	8.3	171	151.7	8.8	54	159.3	9.3	723

Weight (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	68.6	9.3	104	65.8	8.6	80	61.4	7.9	73	60.2	7.2	83	54.0	8.4	28	63.6	9.4	368
Female	52.3	7.7	91	53.5	7.6	76	54.8	10.3	74	51.5	6.8	88	49.6	8.5	26	52.7	8.3	355
Total	61.0	11.8	195	59.8	10.2	156	58.1	9.8	147	55.7	8.3	171	51.9	8.7	54	58.2	10.4	723

Body mass index (kg/m²)

	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	23.6	2.7	104	23.4	2.4	80	22.6	2.6	73	23.0	2.5	83	21.6	3.1	28	23.1	2.6	368
Female	21.3	3.0	91	22.6	3.3	76	23.4	4.1	74	23.2	3.0	88	23.7	3.9	26	22.7	3.5	355
Total	22.5	3.1	195	23.0	2.9	156	23.0	3.4	147	23.1	2.8	171	22.6	3.6	54	22.9	3.1	723

Trochanterion height (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	81.4	4.2	104	80.1	4.0	80	78.5	3.5	73	77.7	3.2	83	76.4	2.9	28	79.3	4.1	368
Female	76.1	3.3	91	75.0	3.1	76	74.3	3.2	74	72.8	3.4	88	70.7	3.7	25	74.3	3.6	354
Total	78.9	4.6	195	77.6	4.4	156	76.4	3.9	147	75.2	4.1	171	73.7	4.4	53	76.8	4.6	722

Waist circumference at midway (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	82.2	7.6	104	82.6	7.0	80	80.7	7.5	73	83.4	8.1	83	78.6	10.3	28	82.0	7.9	368
Female	69.9	7.9	91	73.8	8.3	76	76.8	10.7	74	77.6	8.1	88	78.2	9.9	26	74.7	9.3	355
Total	76.4	9.9	195	78.3	8.8	156	78.8	9.4	147	80.4	8.6	171	78.4	10.0	54	78.4	9.4	723

Waist circumference at umbilicus (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	84.2	7.3	104	84.8	6.6	80	82.9	7.6	73	85.2	7.9	83	81.5	9.1	28	84.1	7.5	368
Female	76.7	8.1	91	82.6	9.1	76	85.1	11.0	74	86.4	8.8	88	87.8	9.9	26	82.9	10.0	355
Total	80.7	8.5	195	83.7	8.0	156	84.0	9.5	147	85.8	8.3	171	84.5	9.9	54	83.5	8.9	723

Hip circumference (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	94.9	4.9	104	93.3	4.5	80	90.4	4.4	73	90.3	4.0	83	87.0	4.6	28	92.0	5.1	368
Female	90.4	5.0	91	91.0	4.8	76	90.9	6.4	74	89.2	5.0	88	89.9	6.7	26	90.3	5.4	355
Total	92.8	5.4	195	92.1	4.8	156	90.7	5.5	147	89.7	4.6	171	88.4	5.8	54	91.2	5.3	723

Thigh circumference at midway (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	50.3	3.3	104	49.0	3.6	80	46.6	3.3	73	45.8	3.1	83	43.3	4.3	28	47.7	4.0	368
Female	47.2	4.1	91	47.2	4.3	76	47.2	4.8	74	44.9	3.9	88	44.8	4.9	25	46.5	4.4	354
Total	48.8	4.0	195	48.1	4.1	156	46.9	4.1	147	45.3	3.6	171	44.0	4.6	53	47.1	4.3	722

Calf circumference (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	36.9	2.6	104	36.4	2.4	80	34.7	2.4	73	34.4	2.5	83	33.0	3.1	28	35.5	2.8	368
Female	34.0	2.9	91	34.0	2.6	76	34.1	3.3	74	32.6	2.2	88	32.5	2.8	26	33.6	2.8	355
Total	35.5	3.1	195	35.2	2.7	156	34.4	2.9	147	33.5	2.5	171	32.7	2.9	54	34.6	3.0	723

Upper-arm circumference (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	29.2	2.2	104	28.7	2.1	80	27.6	2.3	73	27.0	2.0	83	25.2	2.5	28	28.0	2.5	368
Female	25.9	3.0	91	26.8	2.8	76	27.5	3.2	74	26.8	2.8	88	26.0	2.9	26	26.7	3.0	355
Total	27.7	3.1	195	27.8	2.6	156	27.6	2.8	147	26.9	2.4	171	25.6	2.7	54	27.3	2.8	723

2) Body composition
 Dual energy x-ray absorptiometry (DXA) (Hologic QDR-4500)

Head fat weight (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	1.043	0.090	184	1.041	0.091	154	1.013	0.091	162	0.985	0.085	168	0.954	0.091	51	1.016	0.094	719
Female	0.882	0.080	193	0.891	0.087	146	0.899	0.077	159	0.872	0.074	165	0.846	0.076	49	0.883	0.080	712
Total	0.960	0.117	377	0.968	0.116	300	0.956	0.102	321	0.929	0.098	333	0.901	0.100	100	0.950	0.110	1431

Head lean weight (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	4.111	0.343	184	4.094	0.327	154	3.985	0.333	162	3.861	0.326	168	3.740	0.326	51	3.994	0.352	719
Female	3.566	0.306	193	3.541	0.330	146	3.496	0.270	159	3.373	0.268	165	3.263	0.271	49	3.479	0.306	712
Total	3.832	0.424	377	3.825	0.429	300	3.742	0.390	321	3.619	0.386	333	3.506	0.383	100	3.738	0.419	1431

Left arm fat weight (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	0.822	0.263	184	0.821	0.271	154	0.751	0.233	162	0.792	0.250	168	0.734	0.262	51	0.792	0.256	719
Female	0.998	0.413	193	1.060	0.358	146	1.159	0.389	159	1.076	0.344	165	0.932	0.376	49	1.060	0.384	712
Total	0.912	0.358	377	0.937	0.338	300	0.953	0.379	321	0.933	0.332	333	0.831	0.336	100	0.926	0.352	1431

Left arm lean weight (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	3.083	0.446	184	3.000	0.390	154	2.814	0.365	162	2.625	0.355	168	2.372	0.324	51	2.847	0.444	719
Female	1.815	0.286	193	1.766	0.268	146	1.784	0.233	159	1.683	0.209	165	1.596	0.196	49	1.752	0.256	712
Total	2.434	0.736	377	2.399	0.703	300	2.304	0.600	321	2.158	0.555	333	1.992	0.473	100	2.302	0.657	1431

Right arm fat weight (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	0.799	0.262	184	0.789	0.276	154	0.728	0.235	162	0.771	0.245	168	0.698	0.261	51	0.767	0.257	719
Female	0.984	0.431	193	1.035	0.356	146	1.141	0.423	159	1.059	0.362	165	0.963	0.417	49	1.046	0.402	712
Total	0.894	0.370	377	0.909	0.340	300	0.933	0.399	321	0.914	0.340	333	0.828	0.370	100	0.906	0.364	1431

Right arm lean weight (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	3.374	0.474	184	3.299	0.445	154	3.077	0.403	162	2.854	0.374	168	2.551	0.327	51	3.111	0.489	719
Female	2.018	0.309	193	1.976	0.299	146	1.995	0.265	159	1.867	0.250	165	1.761	0.252	49	1.951	0.290	712
Total	2.680	0.787	377	2.655	0.764	300	2.541	0.640	321	2.365	0.588	333	2.164	0.492	100	2.534	0.706	1431

Trunk fat weight (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	7.725	2.690	183	7.884	2.860	154	7.499	2.584	162	7.704	2.622	168	6.623	2.732	51	7.625	2.701	718
Female	7.248	3.069	192	8.074	2.645	146	9.107	3.112	159	8.815	2.676	165	7.735	3.007	49	8.231	2.986	711
Total	7.481	2.896	375	7.977	2.755	300	8.296	2.964	321	8.255	2.703	333	7.167	2.909	100	7.926	2.862	1429

Trunk lean weight (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	26.120	3.004	183	25.845	3.049	154	24.441	2.588	162	23.229	2.563	167	21.519	2.509	50	24.686	3.127	716
Female	19.139	2.425	191	18.585	2.161	146	18.449	2.173	159	17.184	1.914	165	16.544	2.097	48	18.240	2.332	709
Total	22.555	4.428	374	22.312	4.498	300	21.473	3.835	321	20.225	3.778	332	19.082	3.400	98	21.478	4.243	1425

Left leg fat weight (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	2.364	0.628	184	2.203	0.631	154	2.041	0.558	162	2.094	0.562	168	2.037	0.711	51	2.171	0.616	719
Female	3.110	0.802	192	2.851	0.665	146	2.914	0.822	159	2.599	0.733	165	2.365	0.923	48	2.844	0.803	710
Total	2.745	0.812	376	2.519	0.724	300	2.473	0.825	321	2.344	0.699	333	2.196	0.833	99	2.505	0.790	1429

Left leg lean weight (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	8.499	1.140	184	8.173	1.109	154	7.520	0.957	162	7.099	0.934	168	6.471	0.957	51	7.738	1.214	719
Female	5.764	0.952	192	5.536	0.800	146	5.505	0.778	159	5.000	0.580	165	4.800	0.652	48	5.416	0.848	710
Total	7.102	1.723	376	6.890	1.638	300	6.522	1.333	321	6.059	1.308	333	5.661	1.173	99	6.584	1.564	1429

Right leg fat weight (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	2.292	0.622	184	2.143	0.641	154	1.986	0.568	162	2.056	0.563	168	1.996	0.704	51	2.115	0.617	719
Female	3.072	0.790	192	2.802	0.662	146	2.892	0.806	159	2.611	0.754	165	2.390	0.915	49	2.822	0.795	711
Total	2.691	0.812	376	2.464	0.730	300	2.435	0.830	321	2.331	0.719	333	2.189	0.834	100	2.467	0.794	1430

Right leg lean weight (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	8.694	1.151	184	8.355	1.150	154	7.744	0.961	162	7.320	0.955	168	6.687	0.903	51	7.944	1.220	719
Female	5.900	0.982	192	5.709	0.838	146	5.680	0.803	159	5.142	0.633	165	4.948	0.690	49	5.570	0.881	711
Total	7.267	1.759	376	7.067	1.665	300	6.722	1.361	321	6.241	1.358	333	5.835	1.186	100	6.764	1.595	1430

Total fat weight (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	15.0	4.2	183	14.9	4.5	154	14.0	4.0	162	14.4	4.0	168	13.0	4.5	51	14.5	4.2	718
Female	16.3	5.2	191	16.7	4.2	146	18.1	5.1	159	17.0	4.4	165	15.2	5.4	48	16.9	4.9	709
Total	15.7	4.8	374	15.8	4.5	300	16.0	5.0	321	15.7	4.4	333	14.1	5.0	99	15.7	4.7	1427

Lean body weight (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	53.9	6.1	183	52.8	6.0	154	49.6	5.1	162	47.0	5.0	167	43.3	4.8	50	50.3	6.4	716
Female	38.2	4.9	191	37.1	4.3	146	36.9	4.1	159	34.2	3.5	165	32.9	3.7	48	36.4	4.6	709
Total	45.9	9.6	374	45.1	9.4	300	43.3	7.9	321	40.7	7.7	332	38.2	6.8	98	43.4	8.9	1425

Percent body fat (%)

	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	21.5	4.0	183	21.7	4.2	154	21.7	4.3	162	23.2	4.6	167	22.7	5.6	50	22.1	4.5	716
Female	29.3	4.9	191	30.7	4.5	146	32.4	4.8	159	32.8	5.1	165	30.8	6.3	48	31.2	5.2	709
Total	25.5	6.0	374	26.1	6.3	300	27.0	7.0	321	27.9	6.8	332	26.6	7.2	98	26.6	6.6	1425

3) Thickness of subcutaneous fat, Thickness of muscle
(Ultrasound scanner, ECHOPAL; Hitachi Medical Corp.)

Thickness of subcutaneous fat at right of umbilicus (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	17.0	6.3	104	16.4	5.5	80	13.3	4.3	73	14.0	4.9	83	12.5	6.0	28	15.1	5.7	368
Female	18.0	7.4	91	22.0	7.8	76	24.3	8.9	74	21.9	7.5	88	19.9	7.6	26	21.3	8.1	355
Total	17.4	6.8	195	19.1	7.3	156	18.8	8.9	147	18.1	7.5	171	16.0	7.7	54	18.1	7.6	723

Thickness of musculus rectus abdominis at right of umbilicus (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	11.6	1.8	104	10.5	2.0	80	10.0	2.0	73	9.3	1.6	83	8.3	2.4	28	10.3	2.1	368
Female	8.5	1.8	91	7.6	1.8	76	7.8	1.7	74	7.3	1.6	88	7.3	2.3	26	7.8	1.8	355
Total	10.2	2.4	195	9.1	2.4	156	8.9	2.2	147	8.3	1.9	171	7.8	2.4	54	9.1	2.4	723

Thickness of subcutaneous fat at thigh (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	6.5	1.8	104	6.0	1.8	80	5.3	1.6	73	5.5	1.9	83	6.0	2.3	28	5.9	1.9	368
Female	10.7	2.3	91	10.2	2.5	76	9.7	3.1	74	8.7	2.9	88	8.0	2.8	26	9.7	2.8	355
Total	8.5	2.9	195	8.0	3.0	156	7.5	3.3	147	7.2	2.9	171	7.0	2.7	54	7.8	3.1	723

Thickness of musculus rectus femoris at thigh (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	33.3	6.4	104	33.0	6.4	80	28.5	7.6	73	26.3	6.4	83	21.0	4.7	28	29.8	7.6	368
Female	28.1	6.4	91	25.4	7.1	76	26.0	6.9	74	23.0	6.2	88	21.1	5.5	26	25.3	6.9	355
Total	30.9	6.9	195	29.3	7.7	156	27.2	7.3	147	24.6	6.5	171	21.0	5.1	54	27.6	7.6	723

Thickness of subcutaneous fat at anterior calf (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	2.4	0.7	104	2.4	0.8	80	2.0	0.7	73	2.3	0.8	83	2.5	1.1	28	2.3	0.8	368
Female	3.9	1.3	91	3.3	1.3	76	3.3	1.8	74	3.3	1.4	88	3.4	1.6	26	3.5	1.5	355
Total	3.1	1.2	195	2.8	1.2	156	2.7	1.5	147	2.8	1.3	171	2.9	1.4	54	2.9	1.3	723

Thickness of musculus tibialis anterior (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	25.8	3.4	104	26.1	3.2	80	24.6	3.1	73	23.8	2.8	83	21.4	3.4	28	24.8	3.4	368
Female	22.0	2.9	91	21.7	3.0	76	21.9	2.9	74	20.9	2.7	88	20.6	3.3	26	21.6	2.9	355
Total	24.0	3.7	195	24.0	3.8	156	23.2	3.3	147	22.3	3.1	171	21.0	3.4	54	23.2	3.6	723

Thickness of subcutaneous fat at upper-arm (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	6.2	1.8	104	5.9	1.9	80	5.2	1.4	73	5.6	1.6	83	4.7	1.7	28	5.7	1.7	368
Female	10.0	2.4	91	10.1	2.4	76	10.5	3.0	74	9.7	2.6	88	9.1	2.6	26	10.0	2.6	355
Total	8.0	2.8	195	8.0	3.0	156	7.9	3.6	147	7.7	3.0	171	6.8	3.1	54	7.8	3.1	723

Thickness of musculus triceps brachi (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	23.6	5.4	104	24.1	4.6	80	21.5	5.2	73	19.8	4.6	83	16.3	4.0	28	21.9	5.4	368
Female	18.0	5.0	91	18.2	4.6	76	19.0	4.2	74	17.9	4.3	88	16.5	4.6	26	18.1	4.6	355
Total	21.0	5.9	195	21.2	5.5	156	20.2	4.9	147	18.8	4.5	171	16.4	4.3	54	20.0	5.3	723

Thickness of subcutaneous fat at posterior mid-thigh (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	5.6	1.5	104	5.1	1.5	80	4.4	1.3	73	4.7	1.3	83	4.8	1.8	28	5.0	1.5	368
Female	9.2	2.5	91	8.4	3.2	76	8.1	3.4	74	7.4	3.1	88	7.6	3.6	26	8.2	3.2	355
Total	7.3	2.7	195	6.7	3.0	156	6.2	3.2	147	6.1	2.8	171	6.1	3.1	54	6.6	2.9	723

Thickness of subcutaneous fat at posterior calf (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	4.8	1.3	104	4.3	1.3	80	3.9	1.2	73	4.2	1.3	83	4.1	1.4	28	4.3	1.3	368
Female	7.1	1.4	91	6.2	1.5	76	6.0	2.0	74	5.4	1.8	88	5.4	1.5	26	6.1	1.8	355
Total	5.9	1.8	195	5.2	1.7	156	4.9	2.0	147	4.8	1.7	171	4.7	1.6	54	5.2	1.8	723

Thickness of musculus gastrocnemius and soleus (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	57.6	6.4	104	56.3	5.4	80	52.7	6.7	73	52.6	5.8	83	49.6	6.0	28	54.6	6.6	368
Female	50.2	6.0	91	48.8	6.6	76	48.0	6.8	74	46.7	5.4	88	47.5	7.7	26	48.4	6.4	355
Total	54.2	7.2	195	52.7	7.1	156	50.3	7.1	147	49.6	6.3	171	48.6	6.9	54	51.6	7.2	723

4) Intra-abdominal fat area, Subcutaneous fat area at umbilicus level
(CT scan, SCT-6800TX; Shimadzu; Fat Scan; N2 Corp.)

Intra-abdominal fat area at umbilicus by CT (cm²)

	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	80.3	37.2	104	89.7	39.4	78	94.1	46.1	73	96.1	43.3	82	73.5	42.2	28	88.1	41.8	365
Female	37.1	31.4	91	56.4	30.7	76	72.0	50.1	74	80.8	38.3	87	72.7	32.2	24	61.8	41.1	352
Total	60.1	40.7	195	73.3	39.0	154	82.9	49.3	147	88.2	41.4	169	73.1	37.5	52	75.2	43.4	717

Subcutaneous fat area at umbilicus by CT (cm²)

	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	129.3	51.7	104	120.4	41.4	78	106.0	45.7	73	109.7	44.4	82	94.0	41.6	28	115.6	47.1	365
Female	139.8	62.7	91	174.1	68.3	76	184.8	79.8	74	179.8	67.0	87	169.3	73.2	24	168.6	71.3	352
Total	134.2	57.2	195	146.9	62.3	154	145.7	76.0	147	145.8	67.0	169	128.8	69.1	52	141.6	65.8	717

Waist circumference at umbilicus by CT (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	87.4	8.1	104	87.5	7.1	78	85.6	8.1	73	86.7	8.5	82	82.8	9.2	28	86.6	8.1	365
Female	81.1	8.9	91	86.2	8.7	76	88.9	11.4	74	90.0	9.1	87	88.7	9.3	24	86.5	10.1	352
Total	84.4	9.0	195	86.9	7.9	154	87.3	10.0	147	88.4	8.9	169	85.5	9.6	52	86.6	9.1	717

XI. Head MRI Measurements

XI. Head MRI Measurements

MRI was performed on a 1.5T Toshiba instrument (VISART). The scanning protocol included a series of axial T1-(TR500, TE15) and T2-weighted(TR4000, TE120) scans angled parallel to the anterior-posterior commissure line .

1) Brain atrophy

Divided into 4 classes according to an appendix1.

2) Ventricular dilatation

Divided into 4 classes according to an appendix2.

3) Periventricular hyperintensity

Divide into 4 classes according to an appendix3.

4) Cerebrovascular disease

Cerebral infarction

Border zone

Include cerebral cortex

White matter

Basal ganglia, thalamus, internal capsule, midbrain, pons, medulla oblongata

Cerebellar white matter, cerebellar cortex

Decided as following,

Lacuna : The lesions of white matter, basal ganglia, thalamus, internal capsule, midbrain, pons, medulla oblongata and whose size are larger than or equal to 3mm and smaller than or equal to 15mm.

Embolism : Include cerebral or cerebellar cortex, and which is not border zone infarction.

Thrombosis : Other than above.

Cerebral hemorrhage

On T2 weighted image(WI), hyperintensity inside the lesion and no signal around the lesion. Or on T2WI no signal slit lesion.

References

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