

IX. Physiological Examinations

1) Cardiovascular system

- 1. Blood pressure and pulse rate
- 2. Electrocardiography
- 3. Ultrasonic cardiography
- 4. Intima-media thickness of carotid artery

1) Cardiovascular system

1. Blood pressure and pulse rate

(Automatic blood pressure analyzer, BP-204RV, Colin, Inc.,)

Systolic Blood Pressure(mmHg)

	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	118.4	15.9	266	122.8	16.3	331	123.6	17.2	295	127.9	20.0	267	126.0	18.5	43	123.3	17.7	1202
Female	110.3	17.1	294	116.2	18.9	285	121.0	19.5	285	128.0	20.4	275	124.3	21.9	34	118.9	20.1	1173
Total	114.2	17.1	560	119.7	17.9	616	122.3	18.4	580	127.9	20.2	542	125.2	19.9	77	121.1	19.0	2375

Diastolic Blood Pressure(mmHg)

	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	74.6	9.8	266	77.9	10.3	331	76.8	10.0	295	76.7	11.4	267	73.9	10.0	43	76.5	10.4	1202
Female	68.0	10.7	294	72.0	11.0	285	73.6	11.2	285	75.3	11.7	275	71.4	11.9	34	72.2	11.5	1173
Total	71.1	10.7	560	75.1	11.0	616	75.3	10.7	580	76.0	11.6	542	72.8	10.9	77	74.3	11.2	2375

Pulse Rate(/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	66.6	10.5	266	68.6	10.9	331	68.8	11.0	295	70.9	11.9	267	72.6	12.1	43	68.8	11.2	1202
Female	72.2	11.0	294	71.3	9.8	285	71.7	10.1	286	74.7	9.8	275	72.4	11.0	34	72.5	10.3	1174
Total	69.5	11.1	560	69.8	10.4	616	70.2	10.7	581	72.8	11.0	542	72.5	11.5	77	70.6	10.9	2376

2. Electrocardiography

(Automatic EKG analyzer, Kartizer5500, NEC Corp.,)

Heart Rate(/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	62.0	9.6	266	63.1	10.7	331	63.2	11.4	297	66.1	13.2	265	66.8	12.3	43	63.7	11.4	1202
Female	65.2	10.6	294	64.5	9.3	285	65.0	9.4	286	68.1	10.3	275	66.1	9.5	34	65.7	10.0	1174
Total	63.7	10.3	560	63.7	10.1	616	64.1	10.5	583	67.2	11.8	540	66.5	11.1	77	64.7	10.8	2376

PR-interval (msec)

	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	156.2	22.4	265	161.8	23.0	327	163.2	21.6	294	166.1	23.8	250	169.8	25.8	42	162.1	23.1	1178
Female	147.0	19.1	293	156.1	20.4	283	157.9	21.4	284	159.1	24.7	271	159.2	28.4	33	155.1	22.2	1164
Total	151.4	21.2	558	159.2	22.0	610	160.6	21.6	578	162.5	24.5	521	165.1	27.3	75	158.6	22.9	2342

QRS-width (msec)

	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	91.4	9.4	266	92.4	11.3	331	93.2	14.7	297	94.6	17.2	265	92.3	16.6	43	92.8	13.6	1202
Female	83.1	10.5	294	85.0	11.4	285	84.8	10.9	286	86.0	13.0	275	82.7	12.8	34	84.6	11.5	1174
Total	87.0	10.8	560	88.9	11.9	616	89.1	13.6	583	90.2	15.8	540	88.1	15.7	77	88.8	13.3	2376

QT-interval (msec)

	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	394.2	28.5	266	394.4	28.0	331	399.0	29.4	297	398.7	34.6	265	399.0	31.2	43	396.6	30.2	1202
Female	397.3	28.7	294	400.7	28.8	285	404.2	29.3	285	398.9	30.6	275	405.4	29.7	34	400.4	29.4	1173
Total	395.9	28.6	560	397.3	28.5	616	401.6	29.5	582	398.8	32.6	540	401.8	30.5	77	398.5	29.9	2375

QTc-interval (msec)

	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	397.4	20.8	266	400.9	19.8	331	405.5	22.2	297	413.5	24.2	265	416.7	28.6	43	404.6	22.8	1202
Female	410.7	20.6	294	412.2	21.2	285	417.4	22.5	285	421.7	21.7	275	423.5	21.7	34	415.6	21.9	1173
Total	404.4	21.7	560	406.1	21.2	616	411.3	23.1	582	417.6	23.3	540	419.7	25.9	77	410.1	23.0	2375

S (V1)-height (mV)

	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	-0.878	0.412	265	-0.818	0.432	329	-0.779	0.418	291	-0.784	0.404	253	-0.661	0.402	43	-0.809	0.419	1181
Female	-0.835	0.351	293	-0.770	0.361	285	-0.748	0.396	282	-0.768	0.456	263	-0.810	0.601	34	-0.782	0.400	1157
Total	-0.855	0.381	558	-0.796	0.401	614	-0.764	0.407	573	-0.776	0.431	516	-0.727	0.502	77	-0.795	0.410	2338

R (V5)-height (mV)

	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	1.653	0.488	266	1.723	0.587	331	1.762	0.623	297	1.801	0.723	265	1.796	0.798	43	1.737	0.619	1202
Female	1.273	0.402	294	1.428	0.470	285	1.570	0.489	286	1.637	0.600	274	1.706	0.591	34	1.481	0.516	1173
Total	1.454	0.484	560	1.587	0.555	616	1.668	0.569	583	1.718	0.668	539	1.756	0.711	77	1.610	0.585	2375

QRS-axis (degree)

	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	51.8	28.2	266	41.4	30.5	330	37.4	34.9	296	35.1	36.3	264	37.9	34.5	42	41.2	33.1	1198

Female	54.9	27.3	294	47.4	29.0	285	38.6	28.3	285	30.9	30.7	274	25.6	33.6	34	42.6	30.4	1172
Total	53.4	27.8	560	44.2	29.9	615	38.0	31.8	581	33.0	33.6	538	32.4	34.5	76	41.9	31.8	2370

P-axis (degree)

	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	50.1	26.1	262	51.5	27.3	324	48.3	31.0	290	55.6	28.2	247	56.4	26.0	42	51.4	28.2	1165
Female	49.7	27.6	291	52.1	24.7	283	47.5	28.4	283	50.1	26.1	267	42.6	34.6	31	49.6	27.0	1155
Total	49.9	26.9	553	51.8	26.1	607	47.9	29.7	573	52.8	27.3	514	50.5	30.5	73	50.5	27.6	2320

T-axis (degree)

	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	40.0	26.8	265	40.4	28.1	327	40.9	34.3	295	44.7	35.6	260	49.8	35.8	43	41.7	31.5	1190
Female	39.5	22.3	292	36.4	27.8	281	37.0	29.0	281	40.9	29.7	268	41.8	32.6	34	38.5	27.4	1156
Total	39.8	24.5	557	38.6	28.0	608	39.0	31.8	576	42.7	32.8	528	46.3	34.4	77	40.1	29.6	2346

CV of R-R

	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	3.6	1.4	243	3.0	1.2	297	2.9	1.3	255	2.6	1.3	198	2.6	1.6	31	3.0	1.3	1024
Female	3.5	1.4	277	3.0	1.2	268	2.7	1.1	253	2.6	1.2	227	2.3	1.5	26	3.0	1.3	1051
Total	3.6	1.4	520	3.0	1.2	565	2.8	1.2	508	2.6	1.2	425	2.4	1.6	57	3.0	1.3	2075

Minnesota Code

		40 – 49yr		50 – 59yr		60 – 69yr		70 – 79yr		80yr –		Total	
		N	%	N	%	N	%	N	%	N	%	N	%
Minnesota Code 1-0-0	Male	53	19.9	67	20.2	44	14.8	32	12.0	7	16.3	203	16.9
	Female	65	22.1	63	22.1	32	11.2	24	8.7	5	14.7	189	16.1
	Total	118	21.1	130	21.1	76	13.0	56	10.3	12	15.6	392	16.5
Minnesota Code 1-1-1	Male	0	0.0	0	0.0	0	0.0	4	1.5	1	2.3	5	0.4
	Female	0	0.0	0	0.0	1	0.3	1	0.4	1	2.9	3	0.3
	Total	0	0.0	0	0.0	1	0.2	5	0.9	2	2.6	8	0.3
Minnesota Code 1-1-2	Male	0	0.0	1	0.3	0	0.0	1	0.4	0	0.0	2	0.2
	Female	0	0.0	1	0.4	1	0.3	0	0.0	0	0.0	2	0.2
	Total	0	0.0	2	0.3	1	0.2	1	0.2	0	0.0	4	0.2
Minnesota Code 1-1-3	Male	0	0.0	1	0.3	2	0.7	0	0.0	0	0.0	3	0.2
	Female	0	0.0	0	0.0	1	0.3	1	0.4	0	0.0	2	0.2
	Total	0	0.0	1	0.2	3	0.5	1	0.2	0	0.0	5	0.2
Minnesota Code 1-1-4	Male	0	0.0	2	0.6	1	0.3	1	0.4	0	0.0	4	0.3
	Female	1	0.3	0	0.0	0	0.0	5	1.8	0	0.0	6	0.5
	Total	1	0.2	2	0.3	1	0.2	6	1.1	0	0.0	10	0.4
Minnesota Code 1-1-5	Male	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
	Female	0	0.0	0	0.0	0	0.0	1	0.4	0	0.0	1	0.1
	Total	0	0.0	0	0.0	0	0.0	1	0.2	0	0.0	1	0.0
Minnesota Code 1-1-6	Male	0	0.0	1	0.3	0	0.0	2	0.7	0	0.0	3	0.2
	Female	0	0.0	0	0.0	0	0.0	1	0.4	0	0.0	1	0.1
	Total	0	0.0	1	0.2	0	0.0	3	0.6	0	0.0	4	0.2
Minnesota Code 1-1-7	Male	0	0.0	1	0.3	0	0.0	0	0.0	0	0.0	1	0.1
	Female	0	0.0	0	0.0	0	0.0	1	0.4	0	0.0	1	0.1

Minnesota Code 1-2-1	Total	0	0.0	1	0.2	0	0.0	1	0.2	0	0.0	2	0.1
	Male	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
	Female	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
	Total	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Minnesota Code 1-2-2	Male	0	0.0	0	0.0	0	0.0	1	0.4	0	0.0	1	0.1
	Female	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
	Total	0	0.0	0	0.0	0	0.0	1	0.2	0	0.0	1	0.0
Minnesota Code 1-2-3	Male	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
	Female	0	0.0	0	0.0	2	0.7	1	0.4	0	0.0	3	0.3
	Total	0	0.0	0	0.0	2	0.3	1	0.2	0	0.0	3	0.1
Minnesota Code 1-2-4	Male	1	0.4	3	0.9	1	0.3	1	0.4	1	2.3	7	0.6
	Female	0	0.0	1	0.4	0	0.0	3	1.1	0	0.0	4	0.3
	Total	1	0.2	4	0.6	1	0.2	4	0.7	1	1.3	11	0.5
Minnesota Code 1-2-5	Male	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
	Female	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
	Total	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Minnesota Code 1-2-6	Male	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
	Female	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
	Total	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Minnesota Code 1-2-7	Male	0	0.0	1	0.3	0	0.0	1	0.4	0	0.0	2	0.2
	Female	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
	Total	0	0.0	1	0.2	0	0.0	1	0.2	0	0.0	2	0.1
Minnesota Code 1-2-8	Male	1	0.4	0	0.0	0	0.0	0	0.0	0	0.0	1	0.1
	Female	2	0.7	1	0.4	1	0.3	0	0.0	0	0.0	4	0.3
	Total	3	0.5	1	0.2	1	0.2	0	0.0	0	0.0	5	0.2
Minnesota Code 1-3-1	Male	0	0.0	0	0.0	1	0.3	0	0.0	0	0.0	1	0.1
	Female	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
	Total	0	0.0	0	0.0	1	0.2	0	0.0	0	0.0	1	0.0
Minnesota Code 1-3-2	Male	1	0.4	1	0.3	2	0.7	3	1.1	0	0.0	7	0.6
	Female	3	1.0	0	0.0	2	0.7	2	0.7	0	0.0	7	0.6
	Total	4	0.7	1	0.2	4	0.7	5	0.9	0	0.0	14	0.6
Minnesota Code 1-3-3	Male	0	0.0	2	0.6	1	0.3	3	1.1	2	4.7	8	0.7
	Female	0	0.0	1	0.4	2	0.7	0	0.0	0	0.0	3	0.3
	Total	0	0.0	3	0.5	3	0.5	3	0.6	2	2.6	11	0.5
Minnesota Code 1-3-4	Male	1	0.4	1	0.3	1	0.3	1	0.4	0	0.0	4	0.3
	Female	1	0.3	5	1.8	2	0.7	3	1.1	0	0.0	11	0.9
	Total	2	0.4	6	1.0	3	0.5	4	0.7	0	0.0	15	0.6
Minnesota Code 1-3-5	Male	0	0.0	1	0.3	0	0.0	0	0.0	0	0.0	1	0.1
	Female	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
	Total	0	0.0	1	0.2	0	0.0	0	0.0	0	0.0	1	0.0
Minnesota Code 1-3-6	Male	1	0.4	3	0.9	7	2.4	6	2.2	1	2.3	18	1.5
	Female	1	0.3	8	2.8	5	1.7	12	4.4	4	11.8	30	2.6
	Total	2	0.4	11	1.8	12	2.1	18	3.3	5	6.5	48	2.0
Minnesota Code 2-1	Male	4	1.5	5	1.5	8	2.7	9	3.4	1	2.3	27	2.2
	Female	1	0.3	1	0.4	3	1.0	6	2.2	1	2.9	12	1.0
	Total	5	0.9	6	1.0	11	1.9	15	2.8	2	2.6	39	1.6
Minnesota Code 2-2	Male	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
	Female	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
	Total	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Minnesota Code 2-3	Male	12	4.5	1	0.3	2	0.7	2	0.7	0	0.0	17	1.4
	Female	8	2.7	4	1.4	3	1.0	2	0.7	0	0.0	17	1.4
	Total	20	3.6	5	0.8	5	0.9	4	0.7	0	0.0	34	1.4
Minnesota Code 2-4	Male	0	0.0	0	0.0	0	0.0	1	0.4	0	0.0	1	0.1

	Female	1	0.3	1	0.4	0	0.0	0	0.0	0	0.0	2	0.2
	Total	1	0.2	1	0.2	0	0.0	1	0.2	0	0.0	3	0.1
Minnesota Code 2-5	Male	0	0.0	1	0.3	1	0.3	0	0.0	0	0.0	2	0.2
	Female	0	0.0	0	0.0	1	0.3	0	0.0	0	0.0	1	0.1
	Total	0	0.0	1	0.2	2	0.3	0	0.0	0	0.0	3	0.1
Minnesota Code 3-1	Male	10	3.8	24	7.3	26	8.8	39	14.6	4	9.3	103	8.6
	Female	3	1.0	7	2.5	8	2.8	19	6.9	1	2.9	38	3.2
	Total	13	2.3	31	5.0	34	5.8	58	10.7	5	6.5	141	5.9
Minnesota Code 3-2	Male	1	0.4	0	0.0	0	0.0	1	0.4	0	0.0	2	0.2
	Female	0	0.0	0	0.0	1	0.3	1	0.4	0	0.0	2	0.2
	Total	1	0.2	0	0.0	1	0.2	2	0.4	0	0.0	4	0.2
Minnesota Code 3-3-1	Male	3	1.1	2	0.6	4	1.3	2	0.7	0	0.0	11	0.9
	Female	1	0.3	1	0.4	4	1.4	2	0.7	0	0.0	8	0.7
	Total	4	0.7	3	0.5	8	1.4	4	0.7	0	0.0	19	0.8
Minnesota Code 3-3-2	Male	10	3.8	13	3.9	13	4.4	9	3.4	2	4.7	47	3.9
	Female	5	1.7	3	1.1	9	3.1	14	5.1	2	5.9	33	2.8
	Total	15	2.7	16	2.6	22	3.8	23	4.2	4	5.2	80	3.4
Minnesota Code 3-4	Male	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
	Female	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
	Total	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Minnesota Code 4-1-1	Male	0	0.0	0	0.0	0	0.0	1	0.4	0	0.0	1	0.1
	Female	0	0.0	0	0.0	2	0.7	1	0.4	1	2.9	4	0.3
	Total	0	0.0	0	0.0	2	0.3	2	0.4	1	1.3	5	0.2
Minnesota Code 4-1-2	Male	1	0.4	4	1.2	6	2.0	12	4.5	2	4.7	25	2.1
	Female	5	1.7	5	1.8	7	2.4	5	1.8	0	0.0	22	1.9
	Total	6	1.1	9	1.5	13	2.2	17	3.1	2	2.6	47	2.0
Minnesota Code 4-2	Male	5	1.9	10	3.0	19	6.4	12	4.5	4	9.3	50	4.2
	Female	3	1.0	8	2.8	23	8.0	18	6.5	1	2.9	53	4.5
	Total	8	1.4	18	2.9	42	7.2	30	5.5	5	6.5	103	4.3
Minnesota Code 4-3	Male	8	3.0	15	4.5	24	8.1	33	12.4	9	20.9	89	7.4
	Female	20	6.8	24	8.4	44	15.4	63	22.9	5	14.7	156	13.3
	Total	28	5.0	39	6.3	68	11.7	96	17.7	14	18.2	245	10.3
Minnesota Code 4-4	Male	3	1.1	4	1.2	1	0.3	2	0.7	0	0.0	10	0.8
	Female	2	0.7	2	0.7	5	1.7	8	2.9	0	0.0	17	1.4
	Total	5	0.9	6	1.0	6	1.0	10	1.8	0	0.0	27	1.1
Minnesota Code 5-1	Male	2	0.8	2	0.6	2	0.7	4	1.5	0	0.0	10	0.8
	Female	0	0.0	0	0.0	1	0.3	0	0.0	0	0.0	1	0.1
	Total	2	0.4	2	0.3	3	0.5	4	0.7	0	0.0	11	0.5
Minnesota Code 5-2	Male	7	2.6	11	3.3	12	4.0	17	6.4	2	4.7	49	4.1
	Female	6	2.0	12	4.2	23	8.0	18	6.5	4	11.8	63	5.4
	Total	13	2.3	23	3.7	35	6.0	35	6.5	6	7.8	112	4.7
Minnesota Code 5-3	Male	4	1.5	8	2.4	9	3.0	8	3.0	3	7.0	32	2.7
	Female	4	1.4	12	4.2	13	4.5	26	9.5	4	11.8	59	5.0
	Total	8	1.4	20	3.2	22	3.8	34	6.3	7	9.1	91	3.8
Minnesota Code 5-4	Male	6	2.3	15	4.5	13	4.4	20	7.5	2	4.7	56	4.7
	Female	6	2.0	20	7.0	22	7.7	25	9.1	3	8.8	76	6.5
	Total	12	2.1	35	5.7	35	6.0	45	8.3	5	6.5	132	5.6
Minnesota Code 5-5	Male	17	6.4	30	9.1	28	9.4	32	12.0	3	7.0	110	9.1
	Female	16	5.4	35	12.3	40	14.0	42	15.3	5	14.7	138	11.8
	Total	33	5.9	65	10.6	68	11.7	74	13.7	8	10.4	248	10.4
Minnesota Code 6-1	Male	0	0.0	1	0.3	0	0.0	1	0.4	0	0.0	2	0.2
	Female	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
	Total	0	0.0	1	0.2	0	0.0	1	0.2	0	0.0	2	0.1
Minnesota Code 6-2-1	Male	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0

	Female	0	0.0	0	0.0	1	0.3	0	0.0	0	0.0	1	0.1
	Total	0	0.0	0	0.0	1	0.2	0	0.0	0	0.0	1	0.0
Minnesota Code 6-2-3	Male	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
	Female	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
	Total	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Minnesota Code 6-3	Male	3	1.1	4	1.2	6	2.0	5	1.9	0	0.0	18	1.5
	Female	0	0.0	0	0.0	5	1.7	5	1.8	1	2.9	11	0.9
	Total	3	0.5	4	0.6	11	1.9	10	1.8	1	1.3	29	1.2
Minnesota Code 6-4-1	Male	1	0.4	3	0.9	3	1.0	1	0.4	0	0.0	8	0.7
	Female	2	0.7	0	0.0	0	0.0	0	0.0	0	0.0	2	0.2
	Total	3	0.5	3	0.5	3	0.5	1	0.2	0	0.0	10	0.4
Minnesota Code 6-5	Male	5	1.9	1	0.3	0	0.0	3	1.1	1	2.3	10	0.8
	Female	14	4.8	5	1.8	6	2.1	7	2.5	3	8.8	35	3.0
	Total	19	3.4	6	1.0	6	1.0	10	1.8	4	5.2	45	1.9
Minnesota Code 6-8	Male	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
	Female	0	0.0	0	0.0	0	0.0	1	0.4	0	0.0	1	0.1
	Total	0	0.0	0	0.0	0	0.0	1	0.2	0	0.0	1	0.0
Minnesota Code 7-1-1	Male	0	0.0	1	0.3	1	0.3	1	0.4	0	0.0	3	0.2
	Female	1	0.3	1	0.4	0	0.0	0	0.0	0	0.0	2	0.2
	Total	1	0.2	2	0.3	1	0.2	1	0.2	0	0.0	5	0.2
Minnesota Code 7-2-1	Male	2	0.8	6	1.8	12	4.0	20	7.5	4	9.3	44	3.7
	Female	1	0.3	3	1.1	5	1.7	11	4.0	1	2.9	21	1.8
	Total	3	0.5	9	1.5	17	2.9	31	5.7	5	6.5	65	2.7
Minnesota Code 7-3	Male	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
	Female	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
	Total	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Minnesota Code 7-4	Male	0	0.0	0	0.0	1	0.3	1	0.4	0	0.0	2	0.2
	Female	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
	Total	0	0.0	0	0.0	1	0.2	1	0.2	0	0.0	2	0.1
Minnesota Code 7-5	Male	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
	Female	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
	Total	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Minnesota Code 7-6	Male	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
	Female	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
	Total	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Minnesota Code 7-7	Male	0	0.0	1	0.3	0	0.0	3	1.1	0	0.0	4	0.3
	Female	0	0.0	1	0.4	0	0.0	0	0.0	0	0.0	1	0.1
	Total	0	0.0	2	0.3	0	0.0	3	0.6	0	0.0	5	0.2
Minnesota Code 7-8	Male	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
	Female	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
	Total	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Minnesota Code 8-1-1	Male	0	0.0	0	0.0	0	0.0	1	0.4	0	0.0	1	0.1
	Female	0	0.0	0	0.0	0	0.0	3	1.1	0	0.0	3	0.3
	Total	0	0.0	0	0.0	0	0.0	4	0.7	0	0.0	4	0.2
Minnesota Code 8-1-2	Male	2	0.8	2	0.6	4	1.3	6	2.2	2	4.7	16	1.3
	Female	0	0.0	2	0.7	0	0.0	3	1.1	0	0.0	5	0.4
	Total	2	0.4	4	0.6	4	0.7	9	1.7	2	2.6	21	0.9
Minnesota Code 8-1-3	Male	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
	Female	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
	Total	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Minnesota Code 8-2-2	Male	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
	Female	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
	Total	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0

Minnesota Code 8-2-3	Male	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
	Female	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
	Total	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Minnesota Code 8-3-1	Male	0	0.0	3	0.9	2	0.7	13	4.9	1	2.3	19	1.6
	Female	0	0.0	2	0.7	2	0.7	4	1.5	1	2.9	9	0.8
	Total	0	0.0	5	0.8	4	0.7	17	3.1	2	2.6	28	1.2
Minnesota Code 8-3-2	Male	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
	Female	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
	Total	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Minnesota Code 8-4-1	Male	0	0.0	0	0.0	1	0.3	2	0.7	0	0.0	3	0.2
	Female	2	0.7	0	0.0	3	1.0	0	0.0	0	0.0	5	0.4
	Total	2	0.4	0	0.0	4	0.7	2	0.4	0	0.0	8	0.3
Minnesota Code 8-4-2	Male	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
	Female	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
	Total	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Minnesota Code 8-5-2	Male	0	0.0	0	0.0	1	0.3	0	0.0	0	0.0	1	0.1
	Female	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
	Total	0	0.0	0	0.0	1	0.2	0	0.0	0	0.0	1	0.0
Minnesota Code 8-7	Male	0	0.0	2	0.6	2	0.7	6	2.2	0	0.0	10	0.8
	Female	2	0.7	0	0.0	0	0.0	0	0.0	0	0.0	2	0.2
	Total	2	0.4	2	0.3	2	0.3	6	1.1	0	0.0	12	0.5
Minnesota Code 8-8	Male	27	10.2	23	6.9	20	6.7	21	7.9	1	2.3	92	7.6
	Female	13	4.4	9	3.2	9	3.1	5	1.8	1	2.9	37	3.2
	Total	40	7.1	32	5.2	29	5.0	26	4.8	2	2.6	129	5.4
Minnesota Code 8-9	Male	7	2.6	6	1.8	18	6.1	22	8.2	5	11.6	58	4.8
	Female	10	3.4	7	2.5	7	2.4	24	8.7	4	11.8	52	4.4
	Total	17	3.0	13	2.1	25	4.3	46	8.5	9	11.7	110	4.6
Minnesota Code 9-1	Male	4	1.5	4	1.2	15	5.1	23	8.6	6	14.0	52	4.3
	Female	8	2.7	10	3.5	12	4.2	8	2.9	2	5.9	40	3.4
	Total	12	2.1	14	2.3	27	4.6	31	5.7	8	10.4	92	3.9
Minnesota Code 9-2	Male	28	10.5	30	9.1	21	7.1	9	3.4	3	7.0	91	7.6
	Female	1	0.3	5	1.8	9	3.1	8	2.9	1	2.9	24	2.0
	Total	29	5.2	35	5.7	30	5.1	17	3.1	4	5.2	115	4.8
Minnesota Code 9-3-1	Male	0	0.0	1	0.3	0	0.0	1	0.4	0	0.0	2	0.2
	Female	1	0.3	0	0.0	1	0.3	0	0.0	0	0.0	2	0.2
	Total	1	0.2	1	0.2	1	0.2	1	0.2	0	0.0	4	0.2
Minnesota Code 9-3-2	Male	0	0.0	0	0.0	0	0.0	1	0.4	0	0.0	1	0.1
	Female	0	0.0	1	0.4	0	0.0	0	0.0	0	0.0	1	0.1
	Total	0	0.0	1	0.2	0	0.0	1	0.2	0	0.0	2	0.1
Minnesota Code 9-4-1	Male	137	51.5	181	54.7	144	48.5	131	49.1	20	46.5	613	50.9
	Female	179	60.9	152	53.3	178	62.2	171	62.2	20	58.8	700	59.6
	Total	316	56.4	333	54.1	322	55.2	302	55.7	40	51.9	1313	55.2
Minnesota Code 9-4-2	Male	16	6.0	9	2.7	24	8.1	23	8.6	2	4.7	74	6.1
	Female	9	3.1	14	4.9	14	4.9	14	5.1	1	2.9	52	4.4
	Total	25	4.5	23	3.7	38	6.5	37	6.8	3	3.9	126	5.3
Minnesota Code 9-5	Male	39	14.7	30	9.1	14	4.7	9	3.4	2	4.7	94	7.8
	Female	1	0.3	1	0.4	1	0.3	4	1.5	0	0.0	7	0.6
	Total	40	7.1	31	5.0	15	2.6	13	2.4	2	2.6	101	4.2
Minnesota Code 9-8-1	Male	0	0.0	0	0.0	0	0.0	1	0.4	0	0.0	1	0.1
	Female	0	0.0	0	0.0	1	0.3	0	0.0	0	0.0	1	0.1
	Total	0	0.0	0	0.0	1	0.2	1	0.2	0	0.0	2	0.1
Total	Male	266	100.0	331	100.0	297	100.0	267	100.0	43	100.0	1204	100.0
	Female	294	100.0	285	100.0	286	100.0	275	100.0	34	100.0	1174	100.0
	Total	560	100.0	616	100.0	583	100.0	542	100.0	77	100.0	2378	100.0

3. Ultrasonic cardiography

(Ultrasonic tomography, EUB-655, Hitachi Medical Corp.)

Aortic Dimension (AOD) (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	28.37	3.20	266	29.47	3.48	329	29.80	3.82	297	29.71	3.56	263	29.50	4.30	43	29.36	3.59	1198
Female	24.64	2.91	293	25.80	3.02	283	26.37	3.56	284	26.79	3.13	274	25.81	3.05	34	25.88	3.25	1168
Total	26.41	3.58	559	27.77	3.75	612	28.13	4.07	581	28.22	3.65	537	27.87	4.20	77	27.64	3.85	2366

Left Atrium Dimension (LAD) (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	33.53	4.34	266	34.61	4.41	329	35.30	5.06	297	35.34	5.82	263	37.27	6.72	43	34.80	5.05	1198
Female	30.52	4.06	293	32.06	4.44	283	33.43	4.78	284	35.19	4.94	274	33.28	5.49	34	32.78	4.88	1168
Total	31.95	4.45	559	33.43	4.60	612	34.39	5.01	581	35.27	5.38	537	35.51	6.48	77	33.80	5.07	2366

LAD/AOD Ratio

	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	1.19	0.18	266	1.18	0.17	329	1.19	0.20	297	1.20	0.21	263	1.27	0.23	43	1.19	0.19	1198
Female	1.25	0.18	293	1.25	0.18	283	1.28	0.20	284	1.32	0.21	274	1.30	0.25	34	1.27	0.20	1168
Total	1.22	0.18	559	1.21	0.18	612	1.23	0.20	581	1.26	0.22	537	1.28	0.24	77	1.23	0.20	2366

E-wave Amplitude (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	20.84	3.49	264	19.45	3.45	328	18.60	3.32	292	17.49	3.39	258	15.41	4.16	40	18.99	3.68	1182
Female	19.47	3.69	293	18.05	3.52	280	17.29	3.21	281	16.27	3.52	264	15.14	2.87	32	17.74	3.68	1150
Total	20.12	3.66	557	18.80	3.55	608	17.96	3.33	573	16.87	3.50	522	15.29	3.62	72	18.37	3.73	2332

A-wave Amplitude (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	16.96	3.34	264	16.33	3.22	328	16.15	3.22	292	15.31	3.43	258	13.59	3.34	40	16.11	3.37	1182
Female	14.95	3.48	293	14.54	3.32	280	14.59	3.06	281	14.22	3.11	264	13.16	2.28	32	14.54	3.24	1150
Total	15.90	3.56	557	15.51	3.38	608	15.38	3.24	573	14.76	3.32	522	13.40	2.91	72	15.34	3.40	2332

Diastolic Descent Rate (DDR) (mm/s)

	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	92.8	23.5	264	80.5	22.6	328	70.5	21.8	292	59.9	23.8	258	48.5	20.2	40	75.2	26.0	1182
Female	89.3	23.4	292	75.6	22.8	279	64.1	21.1	281	52.5	21.4	264	43.6	14.9	32	70.1	26.2	1148
Total	90.9	23.5	556	78.3	22.8	607	67.4	21.7	573	56.2	22.9	522	46.3	18.1	72	72.7	26.2	2330

A/E Ratio

	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	0.810	0.103	264	0.837	0.102	328	0.865	0.104	292	0.879	0.153	258	0.899	0.157	40	0.849	0.120	1182
Female	0.762	0.105	293	0.802	0.115	280	0.842	0.112	281	0.879	0.130	264	0.874	0.117	32	0.821	0.123	1150
Total	0.785	0.107	557	0.821	0.110	608	0.854	0.109	573	0.879	0.142	522	0.888	0.140	72	0.836	0.123	2332

Left Ventricular End-diastolic Dimension (LVEdD) (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	48.37	4.43	265	48.14	4.57	323	47.56	4.45	271	47.00	5.27	230	45.46	7.06	34	47.74	4.79	1123
Female	44.15	3.72	289	44.12	4.36	271	44.37	4.24	259	44.68	4.95	237	43.87	5.00	26	44.31	4.32	1082
Total	46.17	4.59	554	46.31	4.90	594	46.00	4.63	530	45.82	5.24	467	44.77	6.25	60	46.05	4.88	2205

Left Ventricular End-systolic Dimension (LVEsD) (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	30.42	4.01	265	30.14	4.71	323	29.53	4.69	271	29.77	5.76	230	29.11	6.66	34	29.95	4.86	1123
Female	26.97	3.60	289	26.43	4.43	271	26.21	4.58	259	27.19	5.11	237	26.40	4.93	26	26.69	4.45	1082
Total	28.62	4.17	554	28.44	4.94	594	27.91	4.92	530	28.46	5.58	467	27.93	6.08	60	28.35	4.94	2205

Left Ventricular Posterior Wall Thickness at end-diastole (LVPWd) (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	10.11	1.84	265	10.48	2.03	323	10.47	2.10	271	10.55	2.33	230	10.29	2.12	34	10.40	2.08	1123
Female	8.98	1.79	289	9.52	1.92	271	9.78	2.01	259	9.71	2.19	237	10.43	2.19	26	9.50	2.00	1082
Total	9.52	1.90	554	10.04	2.03	594	10.14	2.08	530	10.12	2.30	467	10.36	2.13	60	9.96	2.09	2205

Left Ventricular Posterior Wall Thickness at end-systole (LVPWs) (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	17.17	2.43	265	17.67	2.77	323	17.63	2.91	271	17.69	3.09	230	16.85	2.82	34	17.52	2.81	1123
Female	15.10	2.38	289	16.45	2.78	271	16.95	2.76	259	16.12	3.15	237	16.69	3.43	26	16.14	2.86	1082
Total	16.09	2.61	554	17.12	2.84	594	17.30	2.86	530	16.89	3.21	467	16.78	3.07	60	16.85	2.91	2205

Interventricular Septum Diastolic Thickness (IVSd) (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	11.60	2.25	265	12.00	2.14	323	12.19	2.44	271	12.70	2.55	230	12.57	2.57	34	12.11	2.37	1123
Female	9.73	2.01	289	10.47	2.08	271	11.10	2.27	259	11.87	2.17	237	11.61	2.49	26	10.76	2.28	1082
Total	10.62	2.33	554	11.30	2.25	594	11.65	2.42	530	12.28	2.40	467	12.15	2.56	60	11.45	2.42	2205

Interventricular Septum Systolic Thickness (IVSs) (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	15.10	2.23	265	15.92	2.30	323	16.17	2.46	271	16.52	2.72	230	16.26	2.32	34	15.92	2.46	1123
Female	12.98	2.21	289	13.85	2.40	271	14.73	2.46	259	15.46	2.45	237	15.23	3.19	26	14.22	2.57	1082

Total	14.00	2.46	554	14.98	2.56	594	15.46	2.56	530	15.99	2.64	467	15.81	2.75	60	15.08	2.65	2205
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Left Ventricular End-diastolic Volume (LVEDV) (ml)

	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	110.38	23.74	265	109.29	24.07	323	106.20	22.87	271	103.88	27.24	230	97.69	35.36	34	107.34	24.93	1123
Female	89.15	17.21	289	89.35	21.09	271	90.41	20.36	259	92.30	23.73	237	88.44	22.07	26	90.18	20.61	1082
Total	99.31	23.15	554	100.20	24.82	594	98.49	23.06	530	98.00	26.14	467	93.68	30.45	60	98.92	24.46	2205

Left Ventricular End-systolic Volume (LVEsV) (ml)

	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	37.17	12.17	265	36.75	14.00	323	35.02	14.10	271	36.41	17.97	230	35.19	19.59	34	36.32	14.73	1123
Female	27.68	8.89	289	26.79	12.51	271	26.36	11.84	259	29.08	13.69	237	26.95	11.93	26	27.43	11.78	1082
Total	32.22	11.59	554	32.21	14.23	594	30.79	13.73	530	32.69	16.34	467	31.62	17.09	60	31.96	14.08	2205

Stroke Volume (SV) (ml)

	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	73.47	15.70	265	72.80	14.68	323	71.45	14.68	271	67.67	16.21	230	62.61	21.42	34	71.27	15.67	1123
Female	61.55	12.38	289	62.65	13.07	271	64.16	13.66	259	63.35	15.08	237	61.64	15.76	26	62.85	13.58	1082
Total	67.25	15.27	554	68.17	14.84	594	67.89	14.64	530	65.48	15.78	467	62.19	19.03	60	67.14	15.27	2205

Cardiac Output (CO) (l/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	4.41	1.02	265	4.48	1.04	323	4.34	0.96	271	4.18	1.11	230	3.78	1.18	34	4.35	1.05	1123
Female	3.92	0.91	289	3.90	0.92	271	3.98	0.86	259	4.04	1.07	237	3.86	1.06	26	3.95	0.94	1082
Total	4.16	0.99	554	4.22	1.03	594	4.16	0.93	530	4.11	1.09	467	3.81	1.12	60	4.15	1.01	2205

Ejection Fraction (EF) (%)

	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	66.66	6.43	265	67.10	7.51	323	67.68	8.02	271	66.09	9.80	230	65.56	10.27	34	66.88	8.03	1123
Female	69.18	6.86	289	70.73	7.39	271	71.45	8.44	259	69.38	8.77	237	70.19	9.14	26	70.18	7.92	1082
Total	67.98	6.77	554	68.75	7.67	594	69.52	8.43	530	67.76	9.43	467	67.57	9.99	60	68.50	8.14	2205

Fractional Shortening (FS) (%)

	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	37.03	5.39	265	37.57	5.86	323	38.04	6.24	271	36.93	7.44	230	36.35	7.66	34	37.39	6.27	1123
Female	38.96	5.58	289	40.28	5.97	271	41.07	7.02	259	39.32	7.08	237	39.99	7.44	26	39.90	6.47	1082
Total	38.04	5.57	554	38.80	6.06	594	39.52	6.80	530	38.14	7.35	467	37.93	7.72	60	38.62	6.49	2205

Heart Rate (HR) (/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	60.6	9.3	266	62.0	10.1	331	61.6	10.6	297	62.8	11.2	267	62.3	10.9	43	61.8	10.4	1204
Female	64.4	10.8	294	62.8	9.2	285	62.8	9.0	286	64.8	9.7	275	63.2	8.4	34	63.7	9.7	1174
Total	62.6	10.3	560	62.4	9.7	616	62.2	9.8	583	63.8	10.5	542	62.7	9.8	77	62.7	10.1	2378

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	0.73	0.23	265	0.84	0.28	330	0.95	0.34	297	1.08	0.45	265	1.17	0.37	43	0.91	0.36	1200
Female	0.67	0.15	294	0.79	0.20	284	0.91	0.24	285	1.03	0.38	273	1.09	0.24	33	0.86	0.29	1169
Total	0.70	0.19	559	0.82	0.25	614	0.93	0.30	582	1.06	0.42	538	1.14	0.32	76	0.88	0.33	2369

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	0.55	0.13	265	0.60	0.16	330	0.66	0.16	297	0.70	0.18	265	0.76	0.17	43	0.63	0.17	1200
Female	0.52	0.11	294	0.60	0.15	284	0.66	0.16	285	0.71	0.18	273	0.79	0.17	33	0.63	0.17	1169
Total	0.54	0.12	559	0.60	0.16	614	0.66	0.16	582	0.71	0.18	538	0.78	0.17	76	0.63	0.17	2369

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	1.02	0.34	258	1.11	0.37	325	1.31	0.53	291	1.53	0.75	255	1.77	0.75	43	1.26	0.57	1172
Female	0.91	0.25	286	1.03	0.30	273	1.19	0.39	283	1.38	0.73	268	1.59	0.77	34	1.14	0.50	1144
Total	0.96	0.30	544	1.07	0.34	598	1.25	0.47	574	1.45	0.74	523	1.69	0.76	77	1.20	0.54	2316

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	0.68	0.17	258	0.72	0.20	325	0.76	0.21	291	0.83	0.25	255	0.83	0.21	43	0.75	0.22	1172
Female	0.61	0.16	286	0.69	0.17	273	0.76	0.20	283	0.81	0.25	268	0.91	0.24	34	0.72	0.21	1144
Total	0.64	0.17	544	0.70	0.19	598	0.76	0.21	574	0.82	0.25	523	0.86	0.22	77	0.74	0.22	2316

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	0.68	0.16	265	0.75	0.18	330	0.85	0.23	297	0.95	0.31	264	1.07	0.32	43	0.81	0.25	1199
Female	0.63	0.14	293	0.73	0.19	284	0.83	0.18	285	0.92	0.25	274	1.02	0.28	34	0.78	0.23	1170
Total	0.66	0.15	558	0.74	0.18	614	0.84	0.21	582	0.94	0.28	538	1.05	0.30	77	0.80	0.24	2369

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	0.52	0.12	265	0.56	0.12	330	0.61	0.14	297	0.66	0.16	264	0.73	0.20	43	0.59	0.15	1199
Female	0.50	0.12	293	0.55	0.12	284	0.61	0.13	285	0.67	0.16	274	0.71	0.15	34	0.59	0.15	1170
Total	0.51	0.12	558	0.56	0.12	614	0.61	0.14	582	0.67	0.16	538	0.72	0.18	77	0.59	0.15	2369

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	1.01	0.28	259	1.16	0.40	326	1.34	0.62	294	1.48	0.68	263	1.55	0.73	43	1.26	0.55	1185
Female	0.92	0.27	292	1.02	0.27	280	1.19	0.41	284	1.33	0.59	273	1.44	0.64	34	1.12	0.44	1163
Total	0.96	0.28	551	1.10	0.35	606	1.26	0.53	578	1.40	0.64	536	1.50	0.69	77	1.19	0.51	2348

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	0.68	0.17	259	0.72	0.21	326	0.77	0.25	294	0.81	0.24	263	0.84	0.24	42	0.75	0.22	1184
Female	0.62	0.17	292	0.69	0.17	280	0.75	0.21	284	0.79	0.23	273	0.83	0.29	34	0.71	0.21	1163
Total	0.65	0.17	551	0.71	0.19	606	0.76	0.23	578	0.80	0.23	536	0.84	0.26	76	0.73	0.22	2347