

Average nutrition intakes per day
 Alcohol (Ethanol) - ml/day

	40-49yr			50-59yr			60-69yr			70-79yr			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
Male	33.5	40.4	273	37.1	36.8	265	28.1	35.0	251	19.9	25.9	263	29.7	35.5	1052
Female	7.0	15.5	259	5.1	11.1	253	6.1	21.4	259	3.2	8.1	256	5.4	14.9	1027
Total	20.6	33.6	532	21.5	31.7	518	16.9	30.9	510	11.7	21.0	519	17.7	30.0	2079

V. Bone Analysis

V. Bone Analysis

1) Bone mineral density

1. Dual energy X-ray absorptiometry (DXA)

Whole body

Lumbar spine 2-4

Right and left femoral neck

Right and left trochanter region

Right and left Wards triangle

2. Peripheral quantitative computed tomography (pQCT)

D100: Cortical and trabecular bone density of ultradistal radius.

D50: Trabecular bone density over the core volume of ultradistal radius.

P100: Cortical bone density of proximal radius.

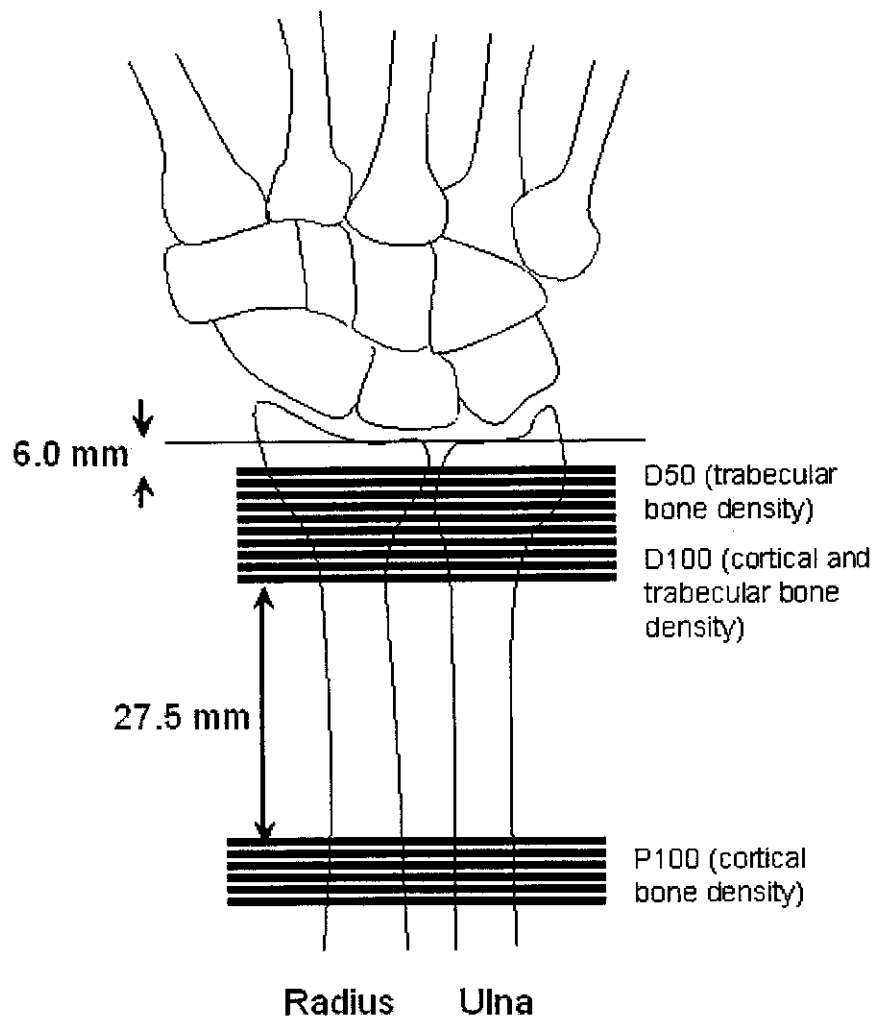


Fig. 1 Measurements of bone mineral density with pQCT (DENSISCAN 1000)

Bone mineral density

1. Dual energy X-ray absorptiometry (DXA) (Hologic QDR-4500)

Whole body (g/cm²)

	40-49yr			50-59yr			60-69yr			70-79yr			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
Female	1.093	0.086	282	1.010	0.108	278	0.904	0.084	284	0.854	0.080	275	0.965	0.129	1119
Male	1.113	0.086	291	1.107	0.092	282	1.081	0.098	283	1.049	0.103	283	1.088	0.098	1139
Total	1.103	0.086	573	1.059	0.111	560	0.992	0.127	567	0.953	0.135	558	1.027	0.130	2258

Lumbar spine 2-4 (g/cm²)

	40-49yr			50-59yr			60-69yr			70-79yr			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
Female	1.023	0.125	282	0.896	0.144	278	0.794	0.129	284	0.750	0.147	275	0.866	0.172	1119
Male	0.988	0.121	291	0.993	0.136	282	0.977	0.169	282	0.974	0.208	283	0.983	0.162	1138
Total	1.006	0.124	573	0.945	0.148	560	0.885	0.176	566	0.864	0.212	558	0.925	0.177	2257

Right femoral neck (g/cm²)

	40-49yr			50-59yr			60-69yr			70-79yr			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
Female	0.771	0.097	282	0.717	0.104	277	0.638	0.090	284	0.583	0.079	274	0.678	0.118	1117
Male	0.791	0.099	291	0.785	0.108	282	0.736	0.113	283	0.699	0.114	283	0.753	0.115	1139
Total	0.782	0.099	573	0.751	0.111	559	0.687	0.113	567	0.642	0.114	557	0.716	0.122	2256

Right trochanter region (g/cm²)

	40-49yr			50-59yr			60-69yr			70-79yr			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
Female	0.658	0.093	282	0.604	0.095	277	0.535	0.088	284	0.484	0.088	274	0.571	0.112	1117
Male	0.680	0.098	291	0.689	0.101	282	0.673	0.107	283	0.632	0.114	283	0.669	0.107	1139
Total	0.669	0.096	573	0.647	0.107	559	0.604	0.120	567	0.559	0.126	557	0.620	0.120	2256

Right Wards triangle (g/cm²)

	40-49yr			50-59yr			60-69yr			70-79yr			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
Female	0.663	0.128	282	0.567	0.138	277	0.431	0.115	284	0.365	0.105	274	0.507	0.169	1117
Male	0.627	0.122	291	0.593	0.127	282	0.526	0.133	283	0.462	0.126	283	0.553	0.142	1139
Total	0.644	0.126	573	0.580	0.133	559	0.479	0.133	567	0.414	0.126	557	0.530	0.157	2256

Left femoral neck (g/cm²)

	40-49yr			50-59yr			60-69yr			70-79yr			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
Female	0.774	0.098	282	0.720	0.093	277	0.647	0.088	283	0.592	0.088	272	0.684	0.115	1114
Male	0.810	0.103	290	0.801	0.108	282	0.750	0.111	283	0.712	0.115	283	0.768	0.116	1138
Total	0.792	0.102	572	0.761	0.109	559	0.699	0.112	566	0.653	0.119	555	0.727	0.123	2252

Left trochanter region (g/cm²)

	40-49yr			50-59yr			60-69yr			70-79yr			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
Female	0.661	0.093	282	0.607	0.097	277	0.540	0.087	283	0.485	0.087	272	0.574	0.113	1114
Male	0.688	0.099	290	0.697	0.104	282	0.679	0.113	283	0.631	0.116	283	0.674	0.111	1138
Total	0.675	0.097	572	0.652	0.111	559	0.610	0.123	566	0.560	0.126	555	0.624	0.123	2252

Left Wards triangle (g/cm²)

	40-49yr			50-59yr			60-69yr			70-79yr			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
Female	0.658	0.123	282	0.559	0.129	277	0.431	0.114	283	0.368	0.106	272	0.505	0.163	1114
Male	0.620	0.128	290	0.589	0.124	282	0.523	0.124	283	0.464	0.120	283	0.549	0.138	1138
Total	0.639	0.127	572	0.574	0.128	559	0.477	0.128	566	0.417	0.123	555	0.527	0.153	2252

2. Peripheral quantitative computed tomography (pQCT) (Densiscan 1000)

D50 (trabecular bone density over the core volume of ultradistal radius) (mg/cm³)

	40-49yr			50-59yr			60-69yr			70-79yr			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
Female	247.1	56.1	270	200.0	69.1	266	152.9	56.3	273	139.8	63.5	270	184.8	74.6	1079
Male	294.6	64.5	279	278.1	63.5	275	255.7	67.1	272	237.8	68.8	267	266.9	69.3	1093
Total	271.2	65.0	549	239.7	76.9	541	204.2	80.5	545	188.5	82.3	537	226.1	82.9	2172

D100 (cortical and trabecular bone density of ultradistal radius) (mg/cm³)

	40-49yr			50-59yr			60-69yr			70-79yr			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
Female	607.7	82.5	270	518.9	101.4	266	427.8	86.7	273	387.7	87.2	270	485.2	123.6	1079
Male	587.3	82.6	279	562.2	87.8	275	525.7	98.3	272	486.8	94.2	267	541.1	98.3	1093
Total	597.3	83.1	549	540.9	97.1	541	476.6	104.7	545	437.0	103.3	537	513.3	115.0	2172

P100 (cortical bone density of proximal radius) (mg/cm³)

	40-49yr			50-59yr			60-69yr			70-79yr			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
Female	1362.6	121.3	270	1222.7	154.1	266	1068.9	152.9	273	959.1	157.1	270	1152.8	212.1	1079
Male	1265.4	118.5	279	1206.9	134.8	275	1162.3	139.9	272	1103.3	161.8	267	1185.4	151.3	1093
Total	1313.2	129.3	549	1214.7	144.7	541	1115.5	153.7	545	1030.8	174.9	537	1169.2	184.7	2172

VI. Blood and Urine Analysis

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Venous blood sample and urine were obtained after an overnight fast.

Urine is analyzed using semi-quantitative test tape.

1) Blood chemistry

Total protein (g/dl)
Total bilirubin (mg/dl)
Triglyceride (mg/dl)
Total cholesterol (mg/dl)
HDL-cholesterol (mg/dl)
Lipid peroxide (nmol/ml)
Urea nitrogen (mg/dl)
Uric acid (mg/dl)
Creatinine (mg/dl)
Sodium (mEq/l)
Chlorine (mEq/l)
Potassium (mEq/l)
Calcium (mg/dl)
Phosphorus (mg/dl)
Glutamate oxaloacetate transaminase, GOT (IU/l)
Glutamate pyruvate transaminase, GPT (IU/l)
Lactate dehydrogenase, LDH (IU/l)
Alkaline phosphatase (IU/l)
Gamma-glutamyltransferase (IU/l)
Cholinesterase (IU/l)
Magnesium (mg/dl)
Iron ($\mu\text{g}/\text{dl}$)
Copper ($\mu\text{g}/\text{dl}$)
Zinc ($\mu\text{g}/\text{dl}$)
Vitamin A (IU/dl)
Free triiodothyronine, Free T3 (pg/ml)
Free thyroxine, Free T4 (ng/dl)
Thyroid stimulating hormone, TSH ($\mu\text{g}/\text{ml}$)
Dehydroepiandrosterone sulfate, DHEA-S (ng/ml)
Sialic acid (mg/dl)

Fasting glucose (mg/dl)
Insulin (μ U/ml)
Hemoglobin A1c (%)
Albumin (mg/dl) direct method
Albumin (%) electrophoresis
Alpha 1-globulin (%) electrophoresis
Alpha 2-globulin (%) electrophoresis
Beta-globulin (%) electrophoresis
Gamma-globulin (%) electrophoresis
A/G ratio

2) Serum fatty acid

Dihomo-gamma-linolenic acid, DHLA (μ g/ml)
Arachidonic acid, AA (μ g/ml)
Eicosapentaenoic acid, EPA (μ g/ml)
Docosahexaenoic acid, DHA (μ g/ml)
EPA/AA ratio

3) Complete blood cell count

White blood cell count (/ μ l)
Red blood cell count (x10000/ μ l)
Hemoglobin (g/dl)
Hematocrit (%)
MCV (fI)
MCH (pg)
MCHC (%)
Platelet count (x10000/ μ l)

4) Sex hormone

Estradiol (pg/ml)
Total testosterone (ng/dl)
Free testosterone (pg/dl)
Sex hormone binding globulin (nmol/l)

5) Disease markers

Platelet-activating factor acetylhydase PAF-AH (nmol/in/ml)

Low density lipoprotein cholesterol LDL-C (mg/dl)

Apo A-I (mg/dl)

Apo A-II (mg/dl)

Apo B (mg/dl)

Apo C-II (mg/dl)

Apo C-III (mg/dl)

Apo E (mg/dl)

Lipoprotein (a) (mg/dl)

6) Urine analysis

Hemoglobin

Occult blood

Ketone body

Bilirubin

Urobilinogen

Protein

Glucose

PH

Nitrite

1) Blood chemistry

Total protein (g/dl)

	40-49yr			50-59yr			60-69yr			70-79yr			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
Male	7.75	0.47	291	7.73	0.48	281	7.89	0.47	283	7.89	0.50	282	7.82	0.48	1137
Female	7.83	0.43	281	7.83	0.47	277	7.90	0.52	285	7.94	0.47	281	7.88	0.48	1124
Total	7.79	0.45	572	7.78	0.48	558	7.90	0.50	568	7.91	0.48	563	7.85	0.48	2261

Total Bilirubin (mg/dl)

	40-49yr			50-59yr			60-69yr			70-79yr			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
Male	0.85	0.43	291	0.79	0.33	281	0.77	0.28	283	0.72	0.27	282	0.78	0.33	1137
Female	0.69	0.31	281	0.67	0.26	277	0.64	0.31	285	0.65	0.25	281	0.66	0.28	1124
Total	0.77	0.38	572	0.73	0.30	558	0.71	0.30	568	0.68	0.26	563	0.72	0.32	2261

Triglyceride (mg/dl)

	40-49yr			50-59yr			60-69yr			70-79yr			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
Male	144.8	128.1	286	141.1	98.3	279	131.5	80.1	280	117.9	54.8	277	133.9	94.9	1122
Female	87.4	58.6	275	104.0	54.1	274	123.4	65.3	282	122.0	58.2	274	109.3	61.0	1105
Total	116.6	104.2	561	122.7	81.6	553	127.4	73.1	562	120.0	56.5	551	121.7	80.8	2227

Total cholesterol (mg/dl)

	40-49yr			50-59yr			60-69yr			70-79yr			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
Male	211.9	30.9	291	216.4	36.2	281	211.1	32.6	283	209.5	33.3	282	212.2	33.4	1137
Female	211.3	33.7	281	231.7	32.4	277	231.5	35.4	285	233.2	34.6	281	226.9	35.2	1124
Total	211.6	32.3	572	224.0	35.2	558	221.3	35.5	568	221.3	35.9	563	219.5	35.1	2261

HDL-cholesterol (mg/dl)

	40-49yr			50-59yr			60-69yr			70-79yr			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
Male	57.4	15.1	291	58.3	14.8	281	55.8	14.2	283	58.3	15.2	282	57.4	14.8	1137
Female	69.5	15.2	281	67.5	14.5	277	63.5	15.2	285	63.8	15.7	281	66.0	15.3	1124
Total	63.3	16.3	572	62.9	15.3	558	59.7	15.2	568	61.0	15.7	563	61.7	15.7	2261

Lipid peroxide (nMOL/ML)

	40-49yr			50-59yr			60-69yr			70-79yr			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
Male	2.99	0.64	291	3.20	0.75	281	3.10	0.64	283	3.11	0.73	282	3.10	0.69	1137
Female	2.71	0.59	281	2.93	0.67	277	2.92	0.80	285	2.96	0.79	281	2.88	0.73	1124
Total	2.85	0.63	572	3.06	0.72	558	3.01	0.73	568	3.03	0.76	563	2.99	0.72	2261

Urea nitrogen (mg/dl)

	40-49yr			50-59yr			60-69yr			70-79yr			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
Male	14.5	2.6	16	15.1	3.6	14	17.4	5.3	28	16.7	3.8	16	16.2	4.3	74
Female	13.4	3.6	15	14.7	2.5	16	14.8	4.0	22	15.5	3.6	22	14.7	3.6	75
Total	14.0	3.1	31	14.9	3.0	30	16.3	5.0	50	16.0	3.7	38	15.4	4.0	149

Uric acid (mg/dl)

	40-49yr			50-59yr			60-69yr			70-79yr			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
Male	5.76	1.31	291	5.78	1.30	281	5.59	1.30	283	5.67	1.37	282	5.70	1.32	1137
Female	4.02	0.92	281	4.37	1.03	277	4.59	1.15	285	4.60	1.07	281	4.40	1.07	1124
Total	4.91	1.43	572	5.08	1.37	558	5.09	1.32	568	5.14	1.34	563	5.05	1.37	2261

Creatinine (mg/dl)

	40-49yr			50-59yr			60-69yr			70-79yr			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
Male	0.98	0.16	291	0.99	0.13	281	1.04	0.61	283	1.05	0.22	282	1.02	0.34	1137
Female	0.75	0.10	281	0.75	0.11	277	0.78	0.12	285	0.81	0.15	281	0.77	0.12	1124
Total	0.87	0.18	572	0.87	0.17	558	0.91	0.46	568	0.93	0.23	563	0.90	0.29	2261

Sodium (mEq/l)

	40-49yr			50-59yr			60-69yr			70-79yr			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
Male	143.6	2.1	16	142.7	1.3	14	142.3	1.4	28	142.4	1.9	16	142.7	1.7	74
Female	141.1	1.3	15	142.4	1.6	16	143.4	1.4	22	142.7	2.0	22	142.5	1.8	75
Total	142.4	2.2	31	142.5	1.4	30	142.8	1.5	50	142.6	2.0	38	142.6	1.8	149

Potassium (mEq/l)

	40-49yr			50-59yr			60-69yr			70-79yr			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
Male	4.35	0.41	16	4.03	0.33	14	4.15	0.34	28	4.25	0.40	16	4.19	0.38	74
Female	4.14	0.35	15	3.99	0.24	16	4.15	0.38	22	4.26	0.31	22	4.15	0.34	75
Total	4.25	0.39	31	4.01	0.28	30	4.15	0.36	50	4.26	0.35	38	4.17	0.36	149

Chlorine (mEq/l)

	40-49yr			50-59yr			60-69yr			70-79yr			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
Male	103.4	2.9	16	101.4	2.5	14	101.6	2.2	28	102.6	2.1	16	102.2	2.4	74
Female	102.9	2.5	15	102.4	2.9	16	103.2	1.8	22	102.7	2.6	22	102.8	2.4	75
Total	103.2	2.7	31	101.9	2.7	30	102.3	2.1	50	102.7	2.4	38	102.5	2.5	149

Calcium (mg/dl)

	40-49yr			50-59yr			60-69yr			70-79yr			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
Male	9.35	0.31	291	9.28	0.32	281	9.23	0.32	283	9.21	0.33	282	9.27	0.33	1137
Female	9.13	0.31	281	9.31	0.34	277	9.30	0.31	285	9.31	0.39	281	9.26	0.35	1124
Total	9.24	0.33	572	9.29	0.33	558	9.27	0.32	568	9.26	0.37	563	9.26	0.34	2261

Phosphorus (mg/dl)

	40-49yr			50-59yr			60-69yr			70-79yr			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
Male	3.16	0.40	291	3.09	0.40	281	3.12	0.43	283	3.08	0.37	282	3.11	0.40	1137
Female	3.40	0.43	281	3.59	0.39	277	3.61	0.38	285	3.55	0.40	281	3.54	0.41	1124
Total	3.28	0.43	572	3.34	0.47	558	3.37	0.48	568	3.31	0.45	563	3.32	0.46	2261

Glutamate oxaloacetate transaminase, GOT (IU/l)

	40-49yr			50-59yr			60-69yr			70-79yr			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
Male	24.8	10.6	291	27.3	21.8	281	28.8	23.1	283	27.7	13.8	282	27.1	18.1	1137
Female	20.5	7.7	281	23.5	15.0	277	25.6	13.4	285	26.7	18.1	281	24.1	14.2	1124
Total	22.7	9.6	572	25.4	18.8	558	27.2	18.9	568	27.2	16.1	563	25.6	16.4	2261

Glutamate pyruvate transaminase, GPT (IU/l)

	40-49yr			50-59yr			60-69yr			70-79yr			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
Male	30.0	22.1	291	29.8	30.6	281	27.0	21.6	283	22.9	15.0	282	27.4	23.1	1137
Female	17.9	12.2	281	22.3	21.7	277	22.4	18.6	285	20.4	22.7	281	20.7	19.3	1124
Total	24.0	18.9	572	26.1	26.8	558	24.7	20.3	568	21.7	19.3	563	24.1	21.6	2261

Lactate dehydrogenase, LDH (IU/l)

	40-49yr			50-59yr			60-69yr			70-79yr			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
Male	318.5	47.8	16	337.1	48.5	14	340.7	51.6	28	359.8	53.5	16	339.4	51.5	74
Female	311.3	53.4	15	376.1	101.3	16	379.4	64.9	22	413.2	60.0	22	375.0	78.1	75
Total	315.0	49.9	31	357.9	82.2	30	357.7	60.4	50	390.7	62.6	38	357.3	68.4	149

Alkaline phosphatase (IU/l)

	40-49yr			50-59yr			60-69yr			70-79yr			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
Male	160.3	44.1	291	160.1	40.9	281	170.4	55.7	283	172.6	47.6	282	165.8	47.7	1137
Female	128.8	35.8	281	174.3	48.2	277	185.5	56.0	285	192.9	56.2	281	170.4	55.6	1124
Total	144.8	43.2	572	167.2	45.2	558	178.0	56.3	568	182.7	53.0	563	168.1	51.8	2261

Gamma-glutamyltransferase (IU/l)

	40-49yr			50-59yr			60-69yr			70-79yr			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
Male	63.8	75.7	291	66.4	69.4	281	65.1	114.7	283	39.9	38.6	282	58.9	80.0	1137
Female	24.9	24.3	281	31.1	28.0	277	31.0	38.3	285	26.2	17.3	281	28.3	28.1	1124
Total	44.7	59.8	572	48.9	55.9	558	48.0	87.0	568	33.1	30.7	563	43.7	62.0	2261

Cholinesterase (IU/l)

	40-49yr			50-59yr			60-69yr			70-79yr			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
Male	390.9	81.2	291	386.2	96.3	281	363.1	69.2	283	341.6	75.9	282	370.6	83.5	1137
Female	337.2	89.3	281	384.1	106.4	277	389.3	79.0	285	372.3	76.5	281	370.8	90.7	1124
Total	364.5	89.3	572	385.1	101.3	558	376.3	75.4	568	356.9	77.7	563	370.7	87.1	2261

Magnesium (mg/dl)

	40-49yr			50-59yr			60-69yr			70-79yr			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
Male	2.23	0.15	291	2.21	0.16	281	2.20	0.17	283	2.18	0.17	282	2.20	0.17	1137
Female	2.15	0.15	281	2.18	0.15	277	2.20	0.18	285	2.17	0.17	281	2.18	0.16	1124
Total	2.19	0.16	572	2.19	0.16	558	2.20	0.18	568	2.18	0.17	563	2.19	0.17	2261

Iron (μ g/dl)

	40-49yr			50-59yr			60-69yr			70-79yr			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
Male	124.1	44.8	291	117.7	41.2	281	121.7	38.6	283	114.7	39.7	282	119.6	41.3	1137
Female	100.4	48.7	281	106.8	34.5	277	102.9	31.4	285	100.1	30.9	281	102.5	37.1	1124
Total	112.5	48.2	572	112.3	38.4	558	112.3	36.4	568	107.4	36.3	563	111.1	40.2	2261

Copper (μ g/dl)

	40-49yr			50-59yr			60-69yr			70-79yr			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
Male	87.1	12.7	16	86.5	16.3	14	94.5	14.2	28	89.4	10.2	16	90.3	13.7	74
Female	93.3	20.2	15	92.6	13.1	16	99.5	15.8	22	104.4	16.4	22	98.2	16.8	75
Total	90.1	16.8	31	89.8	14.7	30	96.7	15.0	50	98.1	15.8	38	94.3	15.8	149

Zinc (μ g/dl)

	40-49yr			50-59yr			60-69yr			70-79yr			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
Male	97.1	12.9	291	96.6	13.6	281	96.4	13.4	283	91.7	13.0	282	95.5	13.4	1137
Female	93.4	12.3	281	96.6	14.0	277	96.4	14.4	285	91.6	13.3	281	94.5	13.7	1124
Total	95.3	12.8	572	96.6	13.8	558	96.4	13.9	568	91.6	13.2	563	95.0	13.5	2261

Vitamin A (IU/dl)

	40-49yr			50-59yr			60-69yr			70-79yr			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
Male	225.4	51.0	291	235.5	59.0	281	224.8	60.7	283	206.0	50.3	282	222.9	56.3	1137
Female	164.6	37.5	281	184.8	41.1	277	196.3	44.9	285	188.0	50.8	281	183.5	45.3	1124
Total	195.5	54.2	572	210.3	56.8	558	210.5	55.2	568	197.0	51.3	563	203.3	54.8	2261

Free triiodothyronine, Free T3 (pg/ml)

	40-49yr			50-59yr			60-69yr			70-79yr			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
Male	3.04	0.35	291	3.01	0.31	281	3.00	0.30	283	2.92	0.29	282	2.99	0.32	1137
Female	2.89	0.36	281	2.93	0.32	277	2.96	0.34	285	2.97	0.36	281	2.94	0.35	1124
Total	2.97	0.36	572	2.97	0.32	558	2.98	0.32	568	2.95	0.33	563	2.97	0.33	2261

Free thyroxine, Free T4 (ng/dl)

	40-49yr			50-59yr			60-69yr			70-79yr			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
Male	1.29	0.17	291	1.26	0.19	281	1.28	0.20	283	1.28	0.21	282	1.28	0.19	1137
Female	1.24	0.17	281	1.22	0.18	277	1.26	0.18	285	1.25	0.20	281	1.24	0.18	1124
Total	1.26	0.17	572	1.24	0.18	558	1.27	0.19	568	1.26	0.20	563	1.26	0.19	2261

Thyroid stimulating hormone, TSH (μ g/ml)

	40-49yr			50-59yr			60-69yr			70-79yr			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
Male	1.56	1.08	291	1.80	1.15	281	2.02	1.54	283	2.49	3.65	282	1.97	2.15	1137
Female	1.95	1.40	281	2.28	1.68	277	2.51	2.36	285	2.36	1.88	281	2.27	1.87	1124
Total	1.75	1.26	572	2.04	1.46	558	2.27	2.00	568	2.43	2.90	563	2.12	2.02	2261

Dehydroepiandrosterone sulfate, DHEA-S (ng/ml)

	40-49yr			50-59yr			60-69yr			70-79yr			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
Male	2125.3	826.5	291	1720.3	705.6	281	1361.3	641.3	283	1120.5	564.8	282	1585.8	789.6	1137
Female	1230.3	585.8	281	956.2	518.8	277	782.9	428.3	285	734.2	431.4	281	925.3	531.3	1124
Total	1685.6	846.0	572	1341.0	727.9	558	1071.0	616.6	568	927.7	538.2	563	1257.5	750.2	2261

Sialic acid (mg/dl)

	40-49yr			50-59yr			60-69yr			70-79yr			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
Male	63.4	8.2	291	63.4	6.9	281	65.5	8.3	283	66.4	9.0	282	64.7	8.2	1137
Female	62.0	7.0	281	63.0	7.9	277	65.8	6.8	285	67.6	8.0	281	64.6	7.8	1124
Total	62.7	7.7	572	63.2	7.4	558	65.7	7.6	568	67.0	8.5	563	64.6	8.0	2261

Insulin (μ U/ml)

	40-49yr			50-59yr			60-69yr			70-79yr			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
Male	8.24	4.37	286	8.38	5.44	279	7.80	4.04	280	8.63	8.11	277	8.26	5.70	1122
Female	7.70	3.40	275	7.64	3.57	274	8.87	4.81	282	9.65	7.80	274	8.47	5.26	1105
Total	7.97	3.93	561	8.01	4.62	553	8.34	4.47	562	9.14	7.97	551	8.36	5.49	2227

Fasting glucose (mg/dl)

	40-49yr			50-59yr			60-69yr			70-79yr			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
Male	100.9	15.8	286	105.0	18.2	279	108.3	26.2	279	109.1	27.4	278	105.8	22.6	1122
Female	94.9	12.0	275	99.2	20.0	275	103.1	22.2	282	105.6	22.2	274	100.7	19.9	1106
Total	98.0	14.4	561	102.1	19.3	554	105.7	24.4	561	107.4	25.0	552	103.3	21.5	2228

Hemoglobin A1c (%)

	40-49yr			50-59yr			60-69yr			70-79yr			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
Male	5.12	0.56	290	5.30	0.66	281	5.43	1.01	282	5.46	0.82	283	5.33	0.79	1136
Female	4.93	0.40	281	5.19	0.55	278	5.32	0.79	285	5.40	0.77	281	5.21	0.67	1125
Total	5.03	0.50	571	5.25	0.61	559	5.37	0.90	567	5.43	0.80	564	5.27	0.73	2261

Albumin (g/dl) direct method

	40-49yr			50-59yr			60-69yr			70-79yr			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
Male	4.51	0.31	275	4.44	0.31	267	4.38	0.32	255	4.32	0.34	266	4.41	0.33	1063
Female	4.38	0.30	266	4.40	0.30	261	4.34	0.32	263	4.30	0.33	259	4.36	0.31	1049
Total	4.45	0.31	541	4.42	0.30	528	4.36	0.32	518	4.31	0.33	525	4.38	0.32	2112

Albumin (%) electrophoresis

	40-49yr			50-59yr			60-69yr			70-79yr			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
Male	67.6	2.9	16	65.4	2.6	14	63.6	3.1	28	62.6	3.8	16	64.6	3.6	74
Female	64.2	2.0	15	64.0	2.8	16	63.2	4.3	22	64.3	3.1	22	63.9	3.3	75
Total	66.0	3.0	31	64.6	2.7	30	63.4	3.7	50	63.5	3.5	38	64.2	3.4	149

Alpha 1-globulin (%) electrophoresis

	40-49yr			50-59yr			60-69yr			70-79yr			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
Male	2.3	0.2	16	2.4	0.4	14	2.6	0.4	28	2.7	0.3	16	2.5	0.4	74
Female	2.5	0.3	15	2.3	0.3	16	2.7	0.4	22	2.6	0.2	22	2.5	0.3	75
Total	2.4	0.3	31	2.4	0.3	30	2.6	0.4	50	2.6	0.3	38	2.5	0.3	149

Alpha 2-globulin (%) electrophoresis

	40-49yr			50-59yr			60-69yr			70-79yr			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
Male	7.3	0.8	16	7.6	1.0	14	8.0	1.2	28	8.0	0.8	16	7.8	1.0	74
Female	7.5	0.7	15	7.6	0.9	16	8.4	1.0	22	8.4	0.9	22	8.0	1.0	75
Total	7.4	0.8	31	7.6	1.0	30	8.2	1.1	50	8.2	0.9	38	7.9	1.0	149

Beta-globulin (%) electrophoresis

	40-49yr			50-59yr			60-69yr			70-79yr			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
Male	9.3	0.9	16	9.2	0.9	14	9.4	1.2	28	9.4	1.1	16	9.4	1.0	74
Female	9.6	0.9	15	9.7	0.9	16	9.8	1.1	22	9.6	1.0	22	9.7	1.0	75
Total	9.4	0.9	31	9.4	0.9	30	9.6	1.1	50	9.6	1.0	38	9.5	1.0	149

Gamma-globulin (%) electrophoresis

	40-49yr			50-59yr			60-69yr			70-79yr			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
Male	13.5	2.2	16	15.5	2.6	14	16.3	2.8	28	17.3	3.4	16	15.7	3.0	74
Female	16.2	1.6	15	16.4	2.8	16	16.0	5.2	22	15.1	3.0	22	15.9	3.5	75
Total	14.8	2.4	31	16.0	2.7	30	16.2	4.0	50	16.0	3.3	38	15.8	3.3	149

A/G ratio

	40-49yr			50-59yr			60-69yr			70-79yr			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
Male	2.12	0.26	16	1.92	0.23	14	1.77	0.24	28	1.70	0.26	16	1.86	0.29	74
Female	1.80	0.14	15	1.78	0.22	16	1.75	0.28	22	1.82	0.26	22	1.79	0.24	75
Total	1.96	0.26	31	1.85	0.23	30	1.76	0.25	50	1.77	0.26	38	1.82	0.26	149