

Male	1.121	0.099	255	1.113	0.094	271	1.106	0.105	274	1.080	0.104	259	1.047	0.104	89	1.101	0.103	1148
Female	1.095	0.083	258	1.015	0.105	248	0.932	0.089	268	0.888	0.083	236	0.847	0.074	91	0.972	0.123	1101
Total	1.108	0.092	513	1.066	0.111	519	1.020	0.131	542	0.989	0.135	495	0.946	0.134	180	1.038	0.130	2249

Head bone mineral weight (g)

	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	519.7	89.5	255	507.0	87.0	271	496.2	87.1	274	477.5	89.1	259	454.8	86.8	89	496.6	89.9	1148
Female	547.7	89.1	258	486.3	105.1	248	427.1	85.6	268	396.5	78.5	237	360.8	73.2	91	456.6	108.4	1102
Total	533.8	90.3	513	497.1	96.5	519	462.0	93.0	542	438.8	93.3	496	407.3	92.8	180	477.0	101.4	2250

Head bone mineral density (g/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	2.056	0.295	255	2.056	0.303	271	2.039	0.311	274	1.999	0.325	259	1.937	0.331	89	2.030	0.312	1148
Female	2.335	0.326	258	2.097	0.387	248	1.882	0.332	268	1.780	0.307	237	1.669	0.281	91	1.997	0.404	1102
Total	2.196	0.341	513	2.075	0.346	519	1.962	0.331	542	1.894	0.334	496	1.801	0.334	180	2.014	0.360	2250

Left arm bone mineral weight (g)

	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	177.6	31.2	255	174.6	24.7	271	170.2	27.0	274	162.4	26.0	259	148.7	25.8	89	169.5	28.3	1148
Female	123.6	16.1	258	113.0	19.5	248	98.3	16.6	268	89.0	15.6	237	80.1	15.3	91	104.0	22.3	1102
Total	150.5	36.7	513	145.1	38.0	519	134.6	42.4	542	127.3	42.6	496	114.0	40.3	180	137.4	41.5	2250

Left arm bone mineral density (g/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	0.783	0.057	255	0.774	0.057	271	0.769	0.062	274	0.752	0.065	259	0.727	0.065	89	0.766	0.062	1148
Female	0.679	0.040	258	0.637	0.052	248	0.593	0.049	268	0.567	0.048	237	0.553	0.044	91	0.614	0.065	1102
Total	0.731	0.072	513	0.709	0.088	519	0.682	0.104	542	0.664	0.108	496	0.639	0.103	180	0.692	0.099	2250

Right arm bone mineral weight (g)

	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	188.9	30.2	255	185.5	26.4	271	180.8	29.1	274	170.1	27.0	259	155.7	25.9	89	179.4	29.6	1148
Female	132.0	17.3	258	119.9	20.7	248	105.4	17.0	268	95.5	16.3	237	85.1	15.4	91	111.1	23.4	1102

Total 160.3 37.6 513 154.1 40.5 519 143.5 44.7 542 134.5 43.6 496 120.0 41.3 180 145.9 43.4 2250

Right arm bone mineral density (g/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	0.808	0.062	255	0.799	0.060	271	0.794	0.069	274	0.771	0.070	259	0.743	0.064	89	0.789	0.068	1148
Female	0.699	0.043	258	0.653	0.060	248	0.607	0.048	268	0.579	0.050	237	0.559	0.042	91	0.629	0.069	1102
Total	0.753	0.076	513	0.729	0.095	519	0.701	0.111	542	0.679	0.114	496	0.650	0.107	180	0.711	0.105	2250

Left rib cage bone mineral weight (g)

	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	85.4	16.3	255	82.5	14.7	271	81.4	14.6	274	74.5	15.2	259	70.7	14.4	89	80.2	15.8	1148
Female	69.6	12.4	258	63.0	13.8	248	56.7	10.9	268	53.1	10.1	237	48.8	11.3	91	59.7	13.7	1102
Total	77.5	16.5	513	73.2	17.3	519	69.2	17.9	542	64.2	16.9	496	59.6	17.0	180	70.1	18.0	2250

Left rib cage bone mineral density (g/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	0.641	0.065	255	0.626	0.066	271	0.631	0.071	274	0.607	0.073	259	0.595	0.074	89	0.624	0.071	1148
Female	0.596	0.055	258	0.548	0.063	248	0.507	0.051	268	0.489	0.046	237	0.475	0.047	91	0.530	0.069	1102
Total	0.618	0.064	513	0.589	0.075	519	0.569	0.088	542	0.551	0.085	496	0.534	0.086	180	0.578	0.084	2250

Right rib cage bone mineral weight (g)

	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	86.0	17.8	255	86.1	18.2	271	84.2	16.9	274	78.9	17.5	259	73.1	15.3	89	83.0	17.9	1148
Female	70.9	13.1	258	67.7	15.4	248	62.5	13.2	268	59.5	13.3	237	54.3	13.2	91	64.3	14.6	1102
Total	78.4	17.3	513	77.3	19.3	519	73.5	18.6	542	69.6	18.4	496	63.6	17.0	180	73.8	18.8	2250

Right rib cage bone mineral density (g/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	0.632	0.064	255	0.628	0.065	271	0.626	0.073	274	0.608	0.074	259	0.596	0.077	89	0.622	0.071	1148
Female	0.595	0.056	258	0.551	0.061	248	0.512	0.051	268	0.499	0.046	237	0.490	0.045	91	0.536	0.066	1102
Total	0.614	0.063	513	0.591	0.074	519	0.570	0.085	542	0.556	0.083	496	0.542	0.082	180	0.580	0.081	2250

Thoracic spine bone mineral weight (g)

	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	113.5	22.4	255	119.3	25.2	271	121.1	27.9	274	114.6	26.0	259	110.5	27.1	89	116.7	25.8	1148
Female	98.6	16.5	258	90.5	19.3	248	78.9	15.4	268	75.2	15.1	237	65.4	14.7	91	84.2	19.5	1102
Total	106.0	21.0	513	105.5	26.8	519	100.2	30.9	542	95.8	29.1	496	87.7	31.3	180	100.8	28.1	2250

Thoracic spine bone mineral density (g/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	0.838	0.114	255	0.862	0.123	271	0.892	0.143	274	0.878	0.144	259	0.872	0.159	89	0.868	0.135	1148
Female	0.857	0.095	258	0.787	0.120	248	0.704	0.098	268	0.678	0.086	237	0.639	0.078	91	0.748	0.124	1102
Total	0.848	0.105	513	0.826	0.127	519	0.799	0.154	542	0.783	0.156	496	0.754	0.171	180	0.809	0.143	2250

Lumbar spine bone mineral weight (g)

	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	59.0	12.5	255	59.9	14.2	271	61.8	15.9	274	58.6	15.8	259	58.1	17.2	89	59.7	14.9	1148
Female	56.3	10.7	258	46.5	11.9	248	39.2	10.8	268	36.0	9.5	237	33.8	9.4	91	43.7	13.4	1102
Total	57.6	11.7	513	53.5	14.7	519	50.6	17.7	542	47.8	17.4	496	45.8	18.4	180	51.9	16.3	2250

Lumbar bone mineral density (g/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	0.966	0.146	255	0.983	0.162	271	1.025	0.191	274	1.014	0.197	259	1.038	0.210	89	1.001	0.180	1148
Female	1.049	0.131	258	0.931	0.161	248	0.838	0.138	268	0.814	0.126	237	0.802	0.119	91	0.900	0.167	1102
Total	1.008	0.145	513	0.958	0.164	519	0.933	0.191	542	0.918	0.194	496	0.918	0.207	180	0.951	0.181	2250

Pelvic bone mineral weight (g)

	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	235.2	54.8	255	225.9	50.1	271	220.9	52.8	274	201.1	47.8	259	185.7	45.3	89	218.0	53.1	1148
Female	201.3	40.8	258	171.2	38.9	248	142.2	29.6	268	127.0	31.0	237	108.3	24.8	91	156.5	46.3	1102
Total	218.1	51.1	513	199.7	52.7	519	182.0	58.2	542	165.7	55.0	496	146.6	53.1	180	187.9	58.6	2250

Pelvic bone mineral density (g/cm²)

	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	1.127	0.145	255	1.125	0.129	271	1.116	0.148	274	1.075	0.139	259	1.023	0.134	89	1.104	0.143	1148
Female	1.137	0.126	258	1.078	0.138	248	0.984	0.110	268	0.929	0.112	237	0.857	0.094	91	1.019	0.150	1102
Total	1.132	0.136	513	1.102	0.135	519	1.051	0.146	542	1.005	0.146	496	0.939	0.142	180	1.062	0.153	2250

Left leg bone mineral weight (g)

	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	467.1	72.6	255	456.1	68.6	271	438.6	69.6	274	413.6	60.9	259	381.2	61.5	89	439.0	72.1	1148
Female	343.2	49.5	258	317.3	51.9	248	279.8	45.3	268	251.6	47.9	237	221.6	48.1	91	292.2	62.5	1102
Total	404.8	87.7	513	389.8	92.5	519	360.1	98.8	542	336.2	97.9	496	300.5	97.1	180	367.1	99.8	2250

Left leg bone mineral density (g/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	1.245	0.125	255	1.235	0.118	271	1.218	0.124	274	1.184	0.128	259	1.129	0.117	89	1.213	0.127	1148
Female	1.092	0.094	258	1.035	0.098	248	0.959	0.087	268	0.911	0.087	237	0.857	0.079	91	0.989	0.119	1102
Total	1.168	0.134	513	1.139	0.148	519	1.090	0.168	542	1.053	0.175	496	0.991	0.169	180	1.103	0.167	2250

Right leg bone mineral weight (g)

	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	465.4	70.6	255	454.0	67.8	271	434.8	66.9	274	411.6	60.4	259	380.5	61.1	89	436.7	70.7	1148
Female	345.3	47.8	258	317.4	52.3	248	280.6	43.7	268	250.3	45.7	237	221.7	45.2	91	292.7	62.0	1102
Total	405.0	85.0	513	388.7	91.4	519	358.5	95.7	542	334.5	97.0	496	300.3	95.9	180	366.1	98.1	2250

Right leg bone mineral density (g/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	1.233	0.117	255	1.224	0.113	271	1.203	0.118	274	1.174	0.124	259	1.127	0.115	89	1.202	0.122	1148
Female	1.093	0.088	258	1.036	0.099	248	0.963	0.087	268	0.908	0.083	237	0.858	0.078	91	0.989	0.117	1102
Total	1.162	0.125	513	1.134	0.142	519	1.084	0.159	542	1.047	0.170	496	0.991	0.167	180	1.098	0.160	2250

Lumbar spine 2–4 bone mineral density (g/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	0.975	0.144	255	0.989	0.151	272	1.026	0.174	274	1.018	0.190	266	1.044	0.206	94	1.006	0.171	1161
Female	1.024	0.121	258	0.921	0.160	248	0.823	0.140	269	0.804	0.131	243	0.787	0.122	93	0.884	0.163	1111

Total	1.000	0.135	513	0.957	0.159	520	0.926	0.188	543	0.916	0.196	509	0.916	0.213	187	0.947	0.178	2272
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Right femoral neck bone mineral density (g/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	0.747	0.113	256	0.748	0.106	273	0.746	0.111	276	0.708	0.113	268	0.675	0.105	93	0.732	0.112	1166
Female	0.719	0.098	258	0.679	0.102	248	0.631	0.088	268	0.580	0.090	243	0.544	0.084	93	0.644	0.110	1110
Total	0.733	0.106	514	0.715	0.110	521	0.689	0.115	544	0.647	0.121	511	0.610	0.115	186	0.689	0.120	2276

Right trochanter region bone mineral density (g/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	0.672	0.100	256	0.687	0.107	273	0.693	0.112	276	0.667	0.119	268	0.631	0.111	93	0.676	0.111	1166
Female	0.635	0.087	258	0.601	0.099	248	0.550	0.083	268	0.513	0.086	243	0.466	0.084	93	0.566	0.103	1110
Total	0.653	0.095	514	0.646	0.112	521	0.623	0.122	544	0.594	0.130	511	0.549	0.128	186	0.622	0.121	2276

Right Ward's triangle bone mineral density (g/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	0.596	0.128	256	0.567	0.123	273	0.550	0.125	276	0.493	0.142	268	0.451	0.119	93	0.543	0.136	1166
Female	0.615	0.122	258	0.544	0.128	248	0.469	0.127	268	0.389	0.107	243	0.351	0.107	93	0.492	0.151	1110
Total	0.606	0.125	514	0.556	0.126	521	0.510	0.132	544	0.444	0.137	511	0.401	0.123	186	0.518	0.146	2276

Left femoral neck bone mineral density (g/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	0.763	0.115	256	0.759	0.108	272	0.758	0.109	276	0.717	0.109	266	0.680	0.102	93	0.743	0.112	1163
Female	0.726	0.101	258	0.688	0.098	248	0.637	0.091	269	0.582	0.086	244	0.558	0.148	92	0.650	0.115	1111
Total	0.744	0.110	514	0.725	0.109	520	0.698	0.117	545	0.652	0.119	510	0.619	0.140	185	0.698	0.123	2274

Left trochanter region bone mineral density (g/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	0.683	0.105	256	0.696	0.107	272	0.705	0.115	276	0.682	0.123	266	0.636	0.112	93	0.687	0.114	1163
Female	0.637	0.090	258	0.607	0.099	248	0.558	0.092	269	0.519	0.086	244	0.480	0.100	92	0.572	0.106	1111
Total	0.660	0.101	514	0.654	0.112	520	0.632	0.128	545	0.604	0.134	510	0.558	0.132	185	0.631	0.124	2274

Left Ward's triangle bone mineral density (g/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	0.603	0.135	256	0.562	0.125	272	0.548	0.120	276	0.494	0.123	266	0.444	0.111	93	0.543	0.133	1163
Female	0.615	0.125	258	0.546	0.122	248	0.463	0.113	269	0.377	0.100	244	0.352	0.167	92	0.489	0.153	1111
Total	0.609	0.130	514	0.555	0.124	520	0.506	0.124	545	0.438	0.127	510	0.398	0.149	185	0.517	0.146	2274

Osteoporosis by lumbar spine bone mineral density

		40 – 49yr		50 – 59yr		60 – 69yr		70 – 79yr		80yr –		Total	
		N	%	N	%	N	%	N	%	N	%	N	%
		Normal	Male	212	83.1	230	84.6	239	87.2	216	81.2	77	81.9
	Female	250	96.9	186	75.0	137	50.9	102	41.6	38	40.9	713	64.1
	Total	462	90.1	416	80.0	376	69.2	318	62.2	115	61.5	1687	74.2
Osteopenia	Male	33	12.9	38	14.0	27	9.9	39	14.7	12	12.8	149	12.8
	Female	8	3.1	48	19.4	80	29.7	94	38.4	31	33.3	261	23.5
	Total	41	8.0	86	16.5	107	19.7	133	26.0	43	23.0	410	18.0
Osteoporosis	Male	10	3.9	4	1.5	8	2.9	11	4.1	5	5.3	38	3.3
	Female	0	0.0	14	5.6	52	19.3	49	20.0	24	25.8	139	12.5
	Total	10	1.9	18	3.5	60	11.0	60	11.7	29	15.5	177	7.8

Osteoporosis by femoral neck bone mineral density

		40 – 49yr		50 – 59yr		60 – 69yr		70 – 79yr		80yr –		Total	
		N	%	N	%	N	%	N	%	N	%	N	%
		Normal	Male	167	65.2	189	69.2	185	67.0	144	53.7	37	39.8
	Female	207	80.2	155	62.5	120	44.8	59	24.2	13	14.0	554	49.9
	Total	374	72.8	344	66.0	305	56.1	203	39.6	50	26.9	1276	56.0
Osteopenia	Male	68	26.6	64	23.4	66	23.9	84	31.3	34	36.6	316	27.1
	Female	47	18.2	71	28.6	110	41.0	93	38.1	32	34.4	353	31.8
	Total	115	22.4	135	25.9	176	32.4	177	34.6	66	35.5	669	29.4
Osteoporosis	Male	21	8.2	20	7.3	25	9.1	40	14.9	22	23.7	128	11.0
	Female	4	1.6	22	8.9	38	14.2	92	37.7	48	51.6	204	18.4
	Total	25	4.9	42	8.1	63	11.6	132	25.8	70	37.6	332	14.6