South Korea - The probabilities of a major osteoporotic fracture in men

The following tables give the 10-year probability (%) of a major osteoporotic fracture (hip, clinical spine, forearm or proximal humerus fracture) according to the T-score for femoral neck BMD , the number of clinical risk factors (CRF) and age. Each table provides a mean estimate and a range, based on the epidemiology of South Korea. The range is not a confidence interval, but because the weight of different risk factors varies, is a true range.

Note that the BMI is set at 24 kg/m².

Age = 50 years

Number of CRFs	BMD T-score (femoral neck)										
	-4.0	-3.5	-3.0	-2.5	-2.0	-1.5	-1.0	-0.5	0	0.5	1.0
0	21	13	8.8	6.1	4.6	3.6	3.0	2.6	2.3	2.2	2.1
1	31 (26-38)	20 (18-25)	13 (12-17)	9.3 (7.6-12)	6.9 (5.2-8.7)	5.4 (3.9-6.8)	4.5 (3.1-5.9)	3.8 (2.5-5.2)	3.4 (2.2-4.7)	3.3 (2.1-4.6)	3.1 (2.0-4.4)
2	43 (34-56)	29 (23-39)	20 (15-27)	14 (10-19)	10 (6.9-15)	8.0 (5.0-13)	6.6 (3.8-11)	5.6 (3.1-9.5)	5.0 (2.7-8.7)	4.8 (2.5-8.4)	4.6 (2.3-8.1)
3	56 (43-68)	40 (30-50)	28 (20-36)	20 (14-28)	15 (9.3-23)	12 (6.6-19)	9.5 (5.0-17)	8.1 (4.0-15)	7.3 (3.5-14)	6.9 (3.2-13)	6.6 (3.0-13)
4	69 (55-78)	53 (39-62)	38 (27-45)	28 (19-36)	21 (14-29)	16 (11-24)	13 (8.1-21)	11 (6.4-19)	10 (5.5-17)	9.7 (5.1-17)	9.3 (4.8-16)
5	79 (71-84)	65 (55-72)	50 (40-55)	38 (29-43)	29 (22-35)	23 (17-29)	19 (14-25)	16 (12-22)	14 (10-20)	13 (9.4-19)	13 (8.8-19)
6	86	76	63	49	38	30	25	21	19	18	17

Ten year probability of osteoporotic fractures (%) according to BMD, the number of clinical risk factors (CRF) and age in men from South Korea.

Age = 55 years

Number of CRFs	BMD T-score (femoral neck)										
	-4.0	-3.5	-3.0	-2.5	-2.0	-1.5	-1.0	-0.5	0	0.5	1.0
0	21	14	9.4	6.6	5.0	3.9	3.2	2.7	2.4	2.3	2.2
1	30 (26-36)	20 (18-25)	14 (12-17)	9.9 (8.1-12)	7.4 (5.7-9.1)	5.8 (4.2-7.2)	4.7 (3.3-6.2)	4.0 (2.6-5.4)	3.6 (2.3-5.0)	3.4 (2.2-4.7)	3.2 (2.0-4.5)
2	41 (33-52)	29 (23-37)	20 (16-26)	14 (11-19)	11 (7.5-15)	8.4 (5.4-13)	6.9 (4.1-11)	5.8 (3.3-9.6)	5.2 (2.8-8.9)	4.9 (2.6-8.4)	4.6 (2.4-8.0)
3	53 (42-63)	39 (30-48)	28 (21-36)	20 (15-29)	15 (10-23)	12 (7.2-20)	9.8 (5.4-17)	8.2 (4.3-15)	7.4 (3.7-14)	7.0 (3.3-13)	6.6 (3.1-12)
4	65 (53-73)	50 (39-58)	38 (28-45)	28 (20-36)	21 (15-29)	17 (11-25)	14 (8.6-21)	11 (6.7-19)	10 (5.8-17)	9.7 (5.2-16)	9.2 (4.8-16)
5	74 (67-79)	62 (53-67)	49 (40-54)	37 (30-43)	29 (23-35)	23 (18-29)	19 (14-25)	16 (12-22)	14 (10-20)	13 (9.3-19)	13 (8.6-18)
6	81	72	60	48	38	30	25	21	19	18	17

Age = 60 years

Number of CRFs	BMD T-score (femoral neck)										
	-4.0	-3.5	-3.0	-2.5	-2.0	-1.5	-1.0	-0.5	0	0.5	1.0
0	19	13	9.3	6.8	5.2	4.1	3.3	2.7	2.5	2.3	2.1
1	27 (24-31)	19 (17-22)	13 (12-16)	9.9 (8.1-12)	7.5 (5.8-9.0)	5.9 (4.3-7.4)	4.8 (3.4-6.3)	4.0 (2.7-5.4)	3.6 (2.4-5.0)	3.4 (2.2-4.7)	3.1 (2.0-4.4)
2	36 (29-44)	26 (21-33)	19 (16-24)	14 (11-18)	11 (7.7-15)	8.5 (5.6-13)	6.9 (4.3-11)	5.8 (3.4-9.3)	5.2 (2.9-8.7)	4.8 (2.6-8.1)	4.5 (2.4-7.7)
3	46 (37-55)	35 (28-42)	26 (20-33)	20 (15-27)	15 (10-22)	12 (7.5-19)	9.7 (5.7-16)	8.1 (4.4-14)	7.3 (3.8-13)	6.8 (3.4-12)	6.3 (3.1-12)
4	57 (48-64)	45 (36-52)	35 (27-41)	27 (20-34)	21 (15-28)	16 (12-24)	13 (8.8-20)	11 (6.8-18)	10 (5.9-17)	9.4 (5.2-16)	8.7 (4.7-15)
5	66 (60-70)	55 (48-60)	44 (37-50)	35 (29-41)	27 (22-34)	22 (18-28)	18 (14-24)	15 (12-21)	14 (10-19)	13 (9.0-18)	12 (8.1-17)
6	73	64	54	44	35	29	24	20	18	17	16

Ten year probability of osteoporotic fractures (%) according to BMD, the number of clinical risk factors (CRF) and age in men from South Korea.

Age = 65 years

Number of CRFs	BMD T-score (femoral neck)										
	-4.0	-3.5	-3.0	-2.5	-2.0	-1.5	-1.0	-0.5	0	0.5	1.0
0	17	12	9.0	6.7	5.2	4.1	3.3	2.8	2.5	2.2	2.1
1	23 (21-26)	17 (15-20)	13 (11-15)	9.6 (7.8-11)	7.4 (5.7-8.7)	5.8 (4.3-7.2)	4.7 (3.3-6.1)	4.0 (2.7-5.3)	3.5 (2.4-4.9)	3.2 (2.1-4.5)	3.0 (1.9-4.2)
2	31 (25-37)	23 (19-28)	18 (14-22)	13 (10-17)	10 (7.7-14)	8.2 (5.7-12)	6.7 (4.3-10)	5.6 (3.4-8.8)	5.0 (2.9-8.1)	4.6 (2.6-7.6)	4.2 (2.3-7.1)
3	40 (33-46)	31 (25-37)	24 (19-30)	18 (14-25)	14 (10-21)	11 (7.6-17)	9.2 (5.8-15)	7.8 (4.5-13)	7.0 (3.8-12)	6.3 (3.3-11)	5.8 (3.0-10)
4	49 (41-55)	39 (32-45)	31 (25-37)	24 (19-31)	19 (15-26)	15 (11-22)	13 (8.6-19)	11 (6.8-16)	9.5 (5.8-15)	8.6 (5.0-14)	8.0 (4.4-13)
5	57 (52-62)	48 (42-53)	39 (34-45)	31 (27-37)	25 (21-31)	20 (17-26)	17 (14-22)	14 (11-20)	13 (9.5-18)	12 (8.3-17)	11 (7.4-16)
6	64	56	47	39	32	26	22	18	16	15	14

Age = 70 years

Number of CRFs	BMD T-score (femoral neck)										
	-4.0	-3.5	-3.0	-2.5	-2.0	-1.5	-1.0	-0.5	0	0.5	1.0
0	15	11	8.4	6.5	5.0	4.0	3.2	2.7	2.4	2.1	1.9
1	21 (18-26)	16 (13-20)	12 (9.7-15)	9.2 (7.2-11)	7.1 (5.4-8.8)	5.6 (4.2-6.9)	4.5 (3.2-5.4)	3.7 (2.7-4.5)	3.3 (2.3-3.9)	2.9 (2.0-3.5)	2.6 (1.8-3.2)
2	29 (23-37)	22 (17-29)	17 (13-22)	13 (9.7-17)	10 (7.3-14)	7.9 (5.6-11)	6.2 (4.3-8.6)	5.2 (3.4-7.2)	4.5 (2.9-6.3)	3.9 (2.5-5.6)	3.5 (2.2-5.0)
3	38 (31-46)	30 (24-38)	24 (18-31)	18 (13-24)	14 (9.9-19)	11 (7.5-15)	8.6 (5.7-12)	7.1 (4.6-11)	6.1 (3.8-9.2)	5.3 (3.3-8.2)	4.7 (2.8-7.4)
4	48 (39-55)	40 (31-47)	32 (24-39)	25 (19-31)	19 (14-25)	15 (11-20)	12 (8.3-16)	9.7 (6.6-14)	8.2 (5.5-12)	7.1 (4.7-11)	6.3 (4.1-9.5)
5	58 (50-63)	49 (42-55)	41 (34-47)	33 (27-39)	26 (21-32)	21 (16-25)	16 (13-20)	13 (10-17)	11 (8.7-15)	9.5 (7.5-13)	8.3 (6.6-11)
6	66	59	50	42	34	27	22	18	15	12	11

Ten year probability of osteoporotic fractures (%) according to BMD, the number of clinical risk factors (CRF) and age in men from South Korea.

Age = 75 years

Number of CRFs	BMD T-score (femoral neck)										
	-4.0	-3.5	-3.0	-2.5	-2.0	-1.5	-1.0	-0.5	0	0.5	1.0
0	12	9.6	7.5	5.9	4.7	3.7	3.0	2.6	2.3	2.0	1.8
1	19 (14-32)	15 (11-26)	12 (8.3-20)	9.0 (6.4-15)	7.1 (4.9-11)	5.6 (3.8-8.7)	4.4 (3.0-6.6)	3.7 (2.5-5.3)	3.2 (2.2-4.3)	2.8 (1.9-3.5)	2.4 (1.6-3.0)
2	28 (19-42)	22 (14-34)	17 (11-27)	14 (8.6-21)	11 (6.6-16)	8.3 (5.2-13)	6.5 (4.0-9.6)	5.3 (3.3-7.8)	4.5 (2.8-6.4)	3.8 (2.4-5.3)	3.3 (2.1-4.5)
3	38 (25-51)	31 (19-43)	25 (15-35)	20 (12-28)	16 (9.0-22)	12 (7.0-18)	9.5 (5.4-14)	7.7 (4.5-11)	6.4 (3.7-9.2)	5.3 (3.2-7.7)	4.5 (2.7-6.5)
4	49 (32-60)	42 (26-52)	35 (21-44)	28 (16-37)	22 (13-30)	18 (9.8-24)	14 (7.7-19)	11 (6.3-15)	9.0 (5.2-12)	7.4 (4.5-10)	6.2 (3.8-8.6)
5	60 (41-67)	53 (34-60)	46 (28-53)	38 (22-45)	31 (18-37)	25 (14-30)	20 (11-24)	16 (9.2-20)	13 (7.8-16)	10 (6.7-13)	8.6 (5.8-11)
6	70	64	57	49	42	34	27	22	18	15	12

Age = 80 years

Number of CRFs	BMD T-score (femoral neck)										
	-4.0	-3.5	-3.0	-2.5	-2.0	-1.5	-1.0	-0.5	0	0.5	1.0
0	9.3	7.5	6.0	4.9	4.0	3.3	2.7	2.4	2.1	1.8	1.7
1	14 (10-25)	11 (8.1-20)	9.2 (6.4-16)	7.4 (5.1-12)	5.9 (4.1-9.8)	4.8 (3.3-7.7)	3.9 (2.7-6.1)	3.4 (2.3-5.0)	2.9 (1.9-4.2)	2.5 (1.7-3.5)	2.2 (1.5-2.9)
2	21 (14-33)	17 (11-27)	14 (8.6-22)	11 (6.9-17)	8.8 (5.5-14)	7.0 (4.4-11)	5.7 (3.6-8.6)	4.8 (3.0-7.1)	4.1 (2.5-5.9)	3.5 (2.2-5.0)	3.0 (1.9-4.2)
3	29 (18-41)	24 (14-34)	20 (12-28)	16 (9.4-23)	13 (7.5-19)	10 (6.0-15)	8.3 (4.8-12)	6.9 (4.0-9.8)	5.8 (3.4-8.2)	4.9 (2.9-6.9)	4.2 (2.5-5.9)
4	39 (23-49)	33 (19-42)	27 (16-36)	22 (13-30)	18 (10-24)	15 (8.2-20)	12 (6.6-16)	9.9 (5.6-13)	8.2 (4.7-11)	6.9 (4.0-9.2)	5.8 (3.5-7.8)
5	49 (30-56)	43 (25-49)	37 (21-43)	31 (17-36)	25 (14-30)	21 (11-25)	17 (9.1-21)	14 (7.7-17)	12 (6.6-15)	9.6 (5.7-12)	8.0 (5.0-10)
6	60	54	47	41	34	28	23	19	16	13	11

Ten year probability of osteoporotic fractures (%) according to BMD, the number of clinical risk factors (CRF) and age in men from South Korea.

Age = 85 years

Number of CRFs	BMD T-score (femoral neck)										
	-4.0	-3.5	-3.0	-2.5	-2.0	-1.5	-1.0	-0.5	0	0.5	1.0
0	6.5	5.4	4.4	3.7	3.0	2.5	2.1	1.9	1.7	1.5	1.3
1	10 (7.0-17)	8.2 (5.7-14)	6.8 (4.7-12)	5.6 (3.8-9.5)	4.6 (3.1-7.7)	3.8 (2.5-6.2)	3.2 (2.1-5.1)	2.7 (1.8-4.3)	2.4 (1.6-3.6)	2.1 (1.4-3.1)	1.8 (1.2-2.6)
2	15 (9.4-24)	12 (7.7-20)	10 (6.3-16)	8.3 (5.1-13)	6.8 (4.2-11)	5.6 (3.4-8.8)	4.7 (2.9-7.2)	4.0 (2.5-6.1)	3.4 (2.1-5.2)	3.0 (1.8-4.4)	2.6 (1.6-3.7)
3	21 (13-31)	18 (10-26)	15 (8.6-22)	12 (7.1-18)	10 (5.8-15)	8.2 (4.7-12)	6.9 (3.9-10)	5.8 (3.3-8.5)	5.0 (2.9-7.2)	4.2 (2.5-6.0)	3.6 (2.1-5.2)
4	29 (17-38)	25 (14-33)	21 (12-28)	18 (9.6-24)	15 (7.9-20)	12 (6.5-16)	10 (5.4-14)	8.5 (4.6-11)	7.2 (4.0-9.7)	6.1 (3.4-8.2)	5.2 (2.9-7.0)
5	39 (22-45)	34 (19-40)	29 (16-35)	25 (13-30)	21 (11-25)	17 (8.9-21)	14 (7.5-18)	12 (6.4-15)	10 (5.5-13)	8.7 (4.8-11)	7.4 (4.2-9.4)
6	49	44	39	33	29	24	20	17	15	12	11

Age = 90 years

Number of CRFs	BMD T-score (femoral neck)										
	-4.0	-3.5	-3.0	-2.5	-2.0	-1.5	-1.0	-0.5	0	0.5	1.0
0	4.0	3.4	2.8	2.4	2.0	1.7	1.5	1.3	1.2	1.0	0.9
1	6.2 (4.2-11)	5.2 (3.5-9.3)	4.4 (3.0-7.7)	3.7 (2.5-6.5)	3.1 (2.1-5.4)	2.6 (1.7-4.5)	2.2 (1.5-3.8)	2.0 (1.3-3.3)	1.7 (1.1-2.8)	1.5 (1.0-2.5)	1.3 (0.9-2.1)
2	9.4 (5.8-15)	7.9 (4.8-13)	6.6 (4.0-11)	5.6 (3.4-9.2)	4.7 (2.8-7.6)	3.9 (2.4-6.4)	3.4 (2.0-5.4)	2.9 (1.8-4.7)	2.6 (1.5-4.0)	2.2 (1.4-3.5)	1.9 (1.2-3.0)
3	14 (7.8-21)	12 (6.6-18)	9.9 (5.5-15)	8.4 (4.6-13)	7.0 (3.9-11)	5.9 (3.3-8.9)	5.1 (2.8-7.6)	4.4 (2.4-6.6)	3.8 (2.1-5.7)	3.3 (1.9-4.9)	2.9 (1.6-4.2)
4	20 (11-27)	17 (8.9-23)	15 (7.5-20)	12 (6.3-17)	10 (5.3-14)	8.7 (4.5-12)	7.5 (3.9-10)	6.5 (3.4-9.0)	5.7 (3.0-7.8)	4.9 (2.6-6.7)	4.2 (2.2-5.8)
5	27 (14-33)	24 (12-29)	21 (10-25)	18 (8.7-22)	15 (7.4-18)	13 (6.2-16)	11 (5.4-14)	9.6 (4.7-12)	8.3 (4.1-10)	7.2 (3.6-9.0)	6.2 (3.1-7.8)
6	37	32	29	25	21	18	16	14	12	10	9.1