Singapore (Chinese) - 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 Singapore (Chinese). 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	12	7.1	4.5	3.0	2.2	1.7	1.4	1.2	1.0	1.0	0.9
1	18 (14-23)	11 (9.4-14)	7.0 (6.1-9.0)	4.7 (4.0-6.0)	3.4 (2.7-4.3)	2.6 (1.9-3.2)	2.1 (1.5-2.7)	1.8 (1.2-2.3)	1.6 (1.0-2.1)	1.5 (1.0-2.0)	1.4 (0.9-2.0)
2	27 (19-38)	17 (13-24)	11 (8.3-15)	7.1 (5.4-10)	5.1 (3.6-7.2)	3.9 (2.5-5.9)	3.1 (1.8-5.0)	2.6 (1.5-4.4)	2.3 (1.2-4.0)	2.2 (1.1-3.8)	2.1 (1.1-3.7)
3	38 (26-52)	25 (17-34)	16 (11-21)	11 (7.5-15)	7.6 (4.8-12)	5.7 (3.3-9.6)	4.6 (2.4-8.1)	3.8 (1.9-7.0)	3.4 (1.6-6.4)	3.2 (1.5-6.1)	3.0 (1.4-5.9)
4	52 (37-66)	35 (24-46)	23 (15-29)	16 (10-20)	11 (7.2-15)	8.3 (5.4-12)	6.6 (4.1-10)	5.5 (3.2-9.1)	4.9 (2.6-8.2)	4.6 (2.4-7.8)	4.3 (2.2-7.5)
5	66 (56-77)	48 (38-57)	33 (25-38)	22 (17-25)	16 (12-19)	12 (8.9-15)	9.4 (7.1-13)	7.8 (5.9-11)	6.9 (5.0-9.7)	6.4 (4.5-9.2)	6.1 (4.2-8.8)
6	80	62	45	31	22	17	13	11	9.5	8.9	8.5

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

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	16	9.9	6.5	4.5	3.2	2.5	2.0	1.7	1.5	1.4	1.3
1	23 (19-28)	15 (13-18)	9.8 (8.8-12)	6.8 (5.8-8.3)	4.9 (3.9-6.0)	3.7 (2.8-4.6)	3.0 (2.1-3.9)	2.5 (1.7-3.3)	2.2 (1.5-3.0)	2.1 (1.3-2.9)	1.9 (1.2-2.7)
2	33 (26-44)	22 (17-30)	15 (12-20)	10 (7.8-14)	7.3 (5.3-10)	5.6 (3.7-8.3)	4.4 (2.7-6.9)	3.7 (2.1-6.0)	3.3 (1.8-5.5)	3.0 (1.6-5.2)	2.8 (1.5-4.9)
3	45 (34-58)	31 (23-40)	21 (16-27)	15 (11-21)	11 (7.1-16)	8.1 (4.9-13)	6.4 (3.6-11)	5.3 (2.8-9.5)	4.7 (2.4-8.7)	4.4 (2.1-8.2)	4.1 (1.9-7.8)
4	59 (46-70)	43 (31-52)	30 (21-36)	21 (14-26)	15 (10-21)	12 (7.9-17)	9.2 (6.0-14)	7.6 (4.6-12)	6.7 (3.8-11)	6.2 (3.4-10)	5.8 (3.1-9.9)
5	72 (64-80)	56 (47-64)	41 (33-46)	29 (23-33)	21 (17-26)	16 (13-21)	13 (10-17)	11 (8.2-14)	9.4 (6.9-13)	8.7 (6.1-12)	8.1 (5.6-12)
6	82	69	53	39	29	22	18	15	13	12	11

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	8.8	6.3	4.7	3.6	2.9	2.4	2.1	2.0	1.8
1	27 (24-31)	19 (17-22)	13 (12-15)	9.4 (8.0-11)	7.0 (5.6-8.2)	5.4 (4.1-6.5)	4.3 (3.1-5.5)	3.5 (2.5-4.7)	3.2 (2.1-4.3)	2.9 (1.9-4.0)	2.7 (1.7-3.8)
2	38 (31-47)	27 (22-34)	19 (16-24)	14 (11-18)	10 (7.6-14)	7.9 (5.4-11)	6.3 (4.0-9.5)	5.1 (3.1-8.1)	4.6 (2.6-7.5)	4.2 (2.3-7.0)	3.9 (2.1-6.6)
3	49 (40-59)	37 (28-44)	27 (21-33)	19 (15-26)	15 (10-21)	11 (7.2-18)	9.0 (5.3-15)	7.4 (4.1-13)	6.6 (3.5-12)	6.0 (3.0-11)	5.6 (2.7-10)
4	62 (51-70)	48 (37-55)	36 (27-42)	27 (20-33)	20 (15-27)	16 (11-22)	13 (8.7-19)	10 (6.6-16)	9.2 (5.6-15)	8.4 (4.8-14)	7.8 (4.3-13)
5	73 (67-78)	60 (53-66)	47 (40-51)	36 (30-41)	28 (23-33)	22 (18-27)	17 (14-23)	14 (11-19)	13 (9.6-18)	12 (8.4-16)	11 (7.5-15)
6	81	71	59	47	37	29	23	19	17	16	15

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

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	22	16	11	8.3	6.3	4.9	3.9	3.2	2.9	2.6	2.4
1	30 (28-33)	22 (20-25)	16 (14-18)	12 (10-14)	9.2 (7.5-10)	7.1 (5.5-8.6)	5.7 (4.2-7.2)	4.7 (3.4-6.2)	4.2 (2.9-5.6)	3.8 (2.5-5.2)	3.4 (2.3-4.8)
2	40 (34-48)	30 (25-37)	23 (19-28)	17 (14-21)	13 (10-17)	10 (7.3-14)	8.2 (5.5-12)	6.8 (4.3-10)	6.0 (3.6-9.4)	5.4 (3.1-8.7)	4.9 (2.8-8.1)
3	51 (43-59)	40 (33-47)	31 (25-38)	24 (19-31)	18 (13-26)	14 (9.8-21)	11 (7.3-18)	9.6 (5.7-16)	8.5 (4.8-14)	7.6 (4.1-13)	7.0 (3.6-12)
4	62 (54-69)	51 (42-57)	40 (32-47)	32 (24-39)	25 (19-32)	20 (15-27)	16 (12-23)	13 (9.0-20)	12 (7.5-18)	11 (6.4-17)	9.6 (5.6-16)
5	71 (67-75)	61 (56-65)	51 (45-56)	41 (36-47)	33 (28-39)	26 (22-32)	21 (18-27)	18 (15-24)	16 (12-22)	14 (11-20)	13 (9.4-18)
6	78	70	61	51	42	34	28	24	21	19	17

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	23	17	13	10	8.0	6.4	5.1	4.3	3.8	3.4	3.1
1	32 (29-39)	25 (21-30)	19 (16-23)	15 (12-18)	11 (9.1-14)	9.0 (7.0-11)	7.2 (5.4-8.6)	6.1 (4.4-7.2)	5.3 (3.8-6.3)	4.7 (3.3-5.6)	4.2 (2.9-5.1)
2	44 (37-52)	35 (28-42)	27 (21-34)	21 (16-27)	16 (12-21)	13 (9.2-17)	10 (7.1-14)	8.4 (5.7-11)	7.3 (4.8-10)	6.4 (4.1-8.9)	5.8 (3.6-8.0)
3	56 (47-64)	46 (37-55)	37 (28-46)	29 (21-38)	23 (16-31)	18 (12-25)	14 (9.4-20)	12 (7.6-17)	10 (6.3-15)	8.7 (5.4-13)	7.8 (4.7-12)
4	66 (58-73)	57 (49-65)	48 (39-56)	39 (31-47)	31 (24-38)	24 (18-31)	19 (14-26)	16 (11-22)	14 (9.6-19)	12 (8.2-17)	10 (7.1-15)
5	75 (69-79)	68 (61-73)	59 (52-65)	50 (42-56)	41 (34-47)	33 (27-39)	26 (21-32)	22 (18-27)	18 (15-23)	16 (13-21)	14 (11-18)
6	81	76	69	61	52	43	35	29	24	21	18

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

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	23	18	14	11	9.0	7.3	5.9	5.1	4.5	4.0	3.6
1	33 (26-51)	27 (21-42)	21 (16-33)	17 (13-26)	13 (9.9-20)	11 (7.8-16)	8.5 (6.2-12)	7.2 (5.2-9.6)	6.3 (4.5-7.9)	5.5 (3.9-6.5)	4.8 (3.4-5.6)
2	45 (33-61)	37 (27-53)	31 (21-45)	25 (17-36)	20 (13-29)	16 (10-23)	12 (8.1-18)	10 (6.7-15)	8.7 (5.7-12)	7.5 (4.9-10)	6.5 (4.2-8.4)
3	57 (43-70)	49 (35-63)	42 (28-55)	34 (22-46)	28 (17-39)	22 (14-31)	18 (11-25)	15 (8.9-21)	12 (7.5-17)	10 (6.4-15)	8.9 (5.5-13)
4	67 (52-76)	61 (45-71)	54 (37-64)	46 (30-56)	38 (24-48)	31 (20-40)	25 (16-32)	21 (13-27)	17 (11-23)	14 (9.4-19)	12 (8.1-16)
5	76 (61-81)	71 (54-77)	65 (47-71)	58 (40-65)	50 (33-57)	42 (27-49)	35 (22-41)	29 (19-34)	24 (16-29)	20 (14-24)	17 (12-21)
6	82	79	74	68	62	54	46	39	33	27	23

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	20	16	13	11	8.6	7.0	5.8	5.0	4.4	3.8	3.4
1	28 (22-45)	24 (18-38)	19 (14-31)	16 (12-25)	13 (9.2-20)	10 (7.4-16)	8.4 (6.0-13)	7.2 (5.1-11)	6.2 (4.4-8.7)	5.3 (3.8-7.2)	4.6 (3.3-6.0)
2	39 (28-55)	33 (23-48)	27 (19-40)	23 (15-34)	19 (12-28)	15 (9.9-23)	12 (8.0-19)	10 (6.7-15)	8.8 (5.7-13)	7.5 (4.9-11)	6.4 (4.2-9.0)
3	49 (35-63)	43 (30-57)	37 (25-50)	31 (20-43)	26 (16-36)	21 (13-30)	18 (11-25)	15 (9.0-21)	12 (7.6-17)	11 (6.5-15)	9.0 (5.5-13)
4	60 (44-70)	54 (38-64)	48 (32-58)	41 (26-52)	35 (22-45)	30 (18-38)	25 (15-32)	21 (12-27)	18 (11-23)	15 (9.2-19)	12 (7.9-16)
5	69 (52-75)	64 (46-70)	58 (40-65)	52 (34-59)	46 (29-52)	39 (24-46)	33 (20-39)	29 (17-34)	24 (15-29)	20 (13-25)	17 (11-21)
6	76	73	68	63	56	50	43	38	33	28	24

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

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	16	13	11	9.0	7.4	6.1	5.2	4.5	4.0	3.5	3.1
1	23 (17-38)	19 (14-32)	16 (12-27)	13 (9.6-23)	11 (7.9-19)	9.2 (6.5-15)	7.7 (5.4-13)	6.7 (4.6-11)	5.8 (4.0-9.0)	5.0 (3.4-7.6)	4.4 (3.0-6.4)
2	32 (22-47)	27 (19-41)	23 (16-35)	20 (13-30)	16 (11-25)	14 (8.7-21)	11 (7.3-18)	9.8 (6.2-15)	8.4 (5.3-13)	7.2 (4.6-11)	6.2 (3.9-9.2)
3	42 (29-55)	37 (24-50)	32 (20-44)	27 (17-39)	23 (14-33)	20 (12-28)	17 (9.9-24)	14 (8.4-20)	12 (7.2-17)	10 (6.2-15)	8.9 (5.3-13)
4	52 (36-63)	47 (31-58)	42 (27-52)	37 (23-47)	32 (19-41)	27 (16-36)	23 (13-31)	20 (12-27)	17 (9.9-23)	15 (8.6-20)	13 (7.4-17)
5	62 (44-68)	58 (39-64)	53 (34-59)	47 (29-54)	42 (25-48)	37 (21-43)	32 (18-38)	28 (16-33)	24 (14-29)	21 (12-25)	18 (10-22)
6	71	67	63	58	53	47	42	37	33	29	25

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	12	10	8.6	7.3	6.2	5.3	4.6	4.1	3.7	3.3	2.9
1	17 (13-29)	15 (11-25)	13 (9.0-21)	11 (7.5-18)	9.2 (6.3-15)	7.8 (5.3-13)	6.8 (4.6-11)	6.0 (4.1-9.6)	5.3 (3.6-8.3)	4.7 (3.1-7.2)	4.1 (2.8-6.3)
2	25 (17-37)	21 (14-33)	18 (12-28)	16 (10-24)	13 (8.5-21)	11 (7.2-18)	9.9 (6.2-15)	8.7 (5.5-13)	7.7 (4.8-12)	6.8 (4.2-10)	5.9 (3.7-8.9)
3	33 (22-46)	30 (19-41)	26 (16-36)	22 (14-32)	19 (12-28)	16 (9.8-24)	14 (8.5-21)	13 (7.4-18)	11 (6.5-16)	9.8 (5.7-14)	8.5 (5.0-12)
4	44 (28-54)	39 (24-49)	35 (21-45)	31 (18-40)	27 (15-35)	23 (13-31)	21 (12-27)	18 (10-24)	16 (9.0-21)	14 (7.9-19)	12 (6.9-16)
5	54 (35-60)	50 (31-56)	45 (27-52)	41 (24-47)	36 (21-42)	32 (18-38)	29 (16-34)	25 (14-30)	22 (12-27)	20 (11-24)	17 (9.5-21)
6	63	60	56	52	47	42	38	35	31	28	24