

Singapore (Chinese) - The probabilities of a major osteoporotic fracture in women

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	9.4	5.8	3.8	2.7	2.1	1.7	1.4	1.3	1.2	1.2	1.1
1	15 (12-18)	9.0 (7.9-11)	6.0 (5.1-7.6)	4.2 (3.4-5.3)	3.2 (2.4-4.0)	2.6 (1.8-3.3)	2.2 (1.5-2.9)	1.9 (1.3-2.7)	1.8 (1.2-2.5)	1.7 (1.1-2.4)	1.7 (1.1-2.3)
2	22 (16-31)	14 (11-20)	9.1 (6.9-13)	6.4 (4.5-9.0)	4.8 (3.1-7.4)	3.9 (2.3-6.2)	3.2 (1.8-5.4)	2.9 (1.5-4.9)	2.7 (1.4-4.7)	2.6 (1.3-4.5)	2.5 (1.3-4.4)
3	32 (22-44)	21 (15-28)	14 (9.6-19)	9.5 (6.1-15)	7.1 (4.1-12)	5.7 (3.0-10)	4.7 (2.4-8.7)	4.2 (2.0-8.0)	4.0 (1.8-7.6)	3.8 (1.7-7.3)	3.6 (1.6-7.0)
4	45 (31-58)	30 (20-38)	20 (13-25)	14 (9.1-19)	10 (6.8-15)	8.2 (5.1-13)	6.8 (3.9-11)	6.1 (3.3-10)	5.7 (3.0-9.7)	5.4 (2.8-9.3)	5.2 (2.7-9.0)
5	59 (49-70)	41 (32-48)	28 (22-31)	20 (15-24)	15 (11-19)	12 (8.9-16)	9.7 (7.3-13)	8.6 (6.3-12)	8.1 (5.6-11)	7.6 (5.2-11)	7.3 (5.0-11)
6	75	55	39	28	21	16	13	12	11	11	10

Ten year probability of osteoporotic fractures (%) according to BMD, the number of clinical risk factors (CRF) and age in women 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	13	8.5	5.9	4.3	3.3	2.7	2.2	2.0	1.9	1.8	1.7
1	20 (17-23)	13 (11-16)	8.9 (7.7-11)	6.5 (5.2-7.9)	5.0 (3.8-6.1)	4.0 (2.9-5.1)	3.3 (2.3-4.4)	3.0 (2.0-4.1)	2.8 (1.8-3.9)	2.6 (1.7-3.7)	2.5 (1.6-3.5)
2	29 (23-38)	19 (16-26)	13 (10-18)	9.7 (7.0-13)	7.4 (4.9-11)	5.9 (3.6-9.2)	4.9 (2.8-7.9)	4.4 (2.4-7.4)	4.1 (2.2-6.9)	3.9 (2.0-6.6)	3.6 (1.9-6.3)
3	40 (30-52)	28 (21-35)	19 (14-27)	14 (9.4-21)	11 (6.5-18)	8.6 (4.8-15)	7.1 (3.7-13)	6.4 (3.2-12)	6.0 (2.9-11)	5.6 (2.6-11)	5.3 (2.4-10)
4	54 (40-66)	39 (27-47)	28 (19-34)	20 (14-27)	15 (10-22)	12 (8.0-19)	10 (6.2-16)	9.2 (5.3-15)	8.5 (4.7-14)	7.9 (4.3-13)	7.5 (4.0-13)
5	69 (60-77)	52 (43-58)	38 (31-42)	28 (23-33)	22 (17-27)	17 (14-22)	14 (11-19)	13 (9.5-18)	12 (8.4-17)	11 (7.7-16)	10 (7.1-15)
6	82	66	50	38	30	24	20	18	16	15	14

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	18	13	8.9	6.6	5.1	4.1	3.4	3.1	2.8	2.6	2.4
1	27 (24-31)	19 (17-21)	13 (11-15)	9.9 (8.0-11)	7.6 (5.8-9.3)	6.1 (4.4-7.8)	5.1 (3.6-6.8)	4.6 (3.1-6.3)	4.2 (2.8-5.8)	3.9 (2.6-5.5)	3.6 (2.4-5.1)
2	38 (32-48)	27 (22-35)	19 (15-25)	14 (11-19)	11 (7.5-16)	8.8 (5.6-13)	7.5 (4.4-12)	6.7 (3.8-11)	6.1 (3.4-10)	5.7 (3.1-9.4)	5.3 (2.8-8.8)
3	51 (41-61)	37 (29-47)	27 (21-37)	21 (14-30)	16 (10-25)	13 (7.4-21)	11 (5.8-18)	9.6 (5.0-17)	8.8 (4.4-16)	8.1 (4.0-15)	7.6 (3.6-14)
4	65 (52-74)	50 (38-57)	38 (28-46)	29 (21-38)	22 (16-31)	18 (12-27)	15 (9.6-23)	13 (8.1-22)	12 (7.1-20)	11 (6.4-19)	11 (5.9-18)
5	78 (72-84)	63 (56-68)	50 (43-55)	39 (33-45)	30 (25-37)	24 (20-31)	21 (16-27)	19 (14-25)	17 (12-23)	16 (11-22)	15 (10-21)
6	88	76	63	50	40	33	28	25	23	21	20

Ten year probability of osteoporotic fractures (%) according to BMD, the number of clinical risk factors (CRF) and age in women 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	25	18	13	9.6	7.4	5.8	5.0	4.4	4.0	3.6	3.3
1	35 (32-39)	25 (23-28)	19 (16-21)	14 (11-16)	11 (8.4-13)	8.5 (6.4-11)	7.4 (5.3-9.7)	6.5 (4.5-8.8)	5.9 (4.0-8.1)	5.3 (3.6-7.5)	4.9 (3.2-6.9)
2	47 (41-56)	35 (30-43)	26 (21-33)	20 (15-26)	15 (11-21)	12 (8.1-18)	11 (6.6-16)	9.4 (5.5-15)	8.5 (4.8-13)	7.7 (4.3-12)	7.1 (3.8-12)
3	60 (51-68)	47 (39-57)	36 (28-47)	28 (20-39)	22 (14-33)	17 (11-28)	15 (8.6-25)	13 (7.2-23)	12 (6.3-21)	11 (5.5-19)	10 (5.0-18)
4	73 (63-79)	60 (49-67)	48 (37-57)	37 (29-48)	30 (22-40)	24 (17-34)	21 (14-31)	18 (12-28)	17 (10-26)	15 (8.9-24)	14 (8.0-23)
5	83 (79-87)	72 (67-76)	60 (54-66)	49 (43-56)	39 (34-47)	32 (27-40)	28 (23-36)	25 (19-33)	22 (17-30)	21 (15-28)	19 (13-26)
6	90	83	72	61	50	42	37	33	30	27	25

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	31	23	17	13	10	8.5	7.3	6.5	5.7	5.2	4.7
1	43 (39-50)	33 (29-38)	25 (21-29)	19 (16-22)	15 (12-17)	12 (9.2-14)	10 (7.7-12)	8.9 (6.5-10)	7.9 (5.7-9.3)	7.1 (5.0-8.4)	6.4 (4.5-7.6)
2	58 (49-68)	45 (37-55)	35 (28-44)	27 (20-34)	21 (15-27)	17 (12-22)	14 (9.5-19)	12 (8.0-16)	11 (6.9-15)	9.6 (6.0-13)	8.7 (5.4-12)
3	72 (61-81)	59 (48-71)	47 (36-59)	37 (26-49)	29 (20-40)	23 (15-33)	19 (12-28)	17 (10-25)	15 (9.0-22)	13 (7.8-20)	12 (6.9-18)
4	83 (76-88)	73 (63-80)	61 (50-70)	49 (39-59)	39 (30-49)	31 (23-41)	26 (19-36)	22 (16-31)	20 (14-28)	17 (12-25)	15 (11-23)
5	90 (86-91)	84 (78-87)	74 (67-79)	63 (55-68)	51 (44-58)	41 (36-48)	35 (30-42)	30 (25-37)	26 (22-33)	23 (19-30)	20 (17-27)
6	92	90	84	75	64	54	46	39	34	30	26

Ten year probability of osteoporotic fractures (%) according to BMD, the number of clinical risk factors (CRF) and age in women 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	35	27	21	17	13	11	9.3	8.1	7.1	6.3	5.6
1	50 (43-68)	39 (33-55)	31 (25-43)	24 (19-33)	19 (14-24)	15 (12-19)	13 (9.7-15)	11 (8.2-13)	9.5 (7.1-11)	8.3 (6.2-9.9)	7.3 (5.4-8.8)
2	65 (53-81)	54 (41-72)	43 (32-60)	34 (24-48)	26 (18-37)	21 (15-30)	18 (12-24)	15 (10-19)	13 (8.6-17)	11 (7.4-15)	9.6 (6.5-14)
3	77 (64-87)	68 (52-81)	58 (41-72)	47 (31-61)	37 (24-50)	30 (19-41)	25 (16-34)	20 (13-28)	17 (11-24)	15 (9.6-20)	13 (8.4-18)
4	85 (75-90)	80 (64-87)	72 (53-81)	61 (43-72)	50 (34-60)	41 (28-50)	34 (23-42)	28 (20-36)	23 (17-30)	20 (15-26)	17 (13-22)
5	90 (84-92)	87 (77-90)	82 (68-87)	75 (58-80)	64 (48-70)	55 (41-61)	46 (35-52)	38 (30-43)	31 (26-37)	26 (23-31)	22 (19-27)
6	91	91	89	85	78	69	59	50	41	34	29

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	36	28	22	17	14	11	9.7	8.3	7.1	6.2	5.4
1	49 (42-68)	40 (33-57)	32 (25-46)	25 (20-35)	20 (15-27)	16 (12-22)	14 (10-17)	11 (8.6-14)	9.7 (7.2-11)	8.3 (6.1-9.6)	7.1 (5.2-8.3)
2	62 (51-78)	53 (41-71)	44 (33-61)	35 (25-50)	28 (20-41)	23 (16-33)	19 (13-27)	16 (11-22)	13 (9.0-18)	11 (7.6-15)	9.5 (6.4-12)
3	74 (61-84)	66 (51-79)	57 (42-71)	47 (33-61)	39 (26-51)	32 (21-43)	26 (17-36)	22 (14-30)	18 (12-25)	15 (9.9-21)	13 (8.4-17)
4	81 (70-87)	76 (61-84)	69 (52-78)	60 (42-71)	51 (34-61)	43 (28-52)	36 (24-44)	30 (20-37)	25 (17-31)	20 (14-26)	17 (12-22)
5	86 (78-89)	83 (72-87)	79 (65-84)	72 (56-78)	64 (47-70)	56 (41-62)	48 (35-54)	40 (29-46)	33 (25-39)	28 (22-33)	23 (19-28)
6	89	87	85	81	76	69	61	53	44	37	31

Ten year probability of osteoporotic fractures (%) according to BMD, the number of clinical risk factors (CRF) and age in women 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	33	27	21	17	14	12	9.9	8.4	7.2	6.1	5.3
1	45 (37-62)	37 (30-53)	30 (24-44)	24 (19-35)	20 (15-29)	17 (13-23)	14 (10-19)	12 (8.6-15)	9.9 (7.2-12)	8.4 (6.1-10)	7.1 (5.2-8.4)
2	57 (46-72)	49 (38-65)	41 (30-57)	34 (24-48)	28 (20-41)	24 (16-34)	20 (13-28)	16 (11-23)	14 (9.2-19)	11 (7.7-16)	9.7 (6.4-13)
3	68 (55-79)	61 (47-74)	53 (39-67)	45 (31-59)	38 (26-51)	33 (21-43)	27 (18-37)	23 (15-31)	19 (12-26)	16 (10-22)	13 (8.5-18)
4	76 (64-83)	71 (56-79)	65 (48-74)	57 (40-67)	50 (34-60)	44 (29-53)	37 (24-46)	31 (20-39)	26 (17-33)	22 (14-28)	18 (12-23)
5	82 (72-85)	79 (66-83)	74 (59-80)	68 (51-74)	62 (45-69)	56 (39-62)	49 (33-55)	42 (29-48)	35 (25-41)	30 (21-35)	25 (18-29)
6	85	84	81	77	73	67	61	54	47	40	33

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	29	24	20	16	14	12	10	8.9	7.6	6.5	5.6
1	39 (30-53)	32 (25-45)	27 (20-38)	22 (17-32)	19 (14-27)	17 (12-23)	14 (10-19)	12 (8.6-16)	10 (7.3-13)	8.8 (6.2-11)	7.5 (5.3-9.2)
2	49 (37-63)	42 (31-56)	36 (26-49)	30 (21-42)	26 (18-37)	23 (15-32)	19 (13-27)	17 (11-23)	14 (9.3-19)	12 (7.9-16)	10 (6.7-14)
3	59 (46-71)	53 (39-65)	46 (33-59)	40 (27-52)	35 (23-46)	31 (20-40)	26 (17-35)	23 (14-30)	19 (12-26)	16 (10-22)	14 (8.8-19)
4	68 (55-77)	63 (48-72)	57 (41-67)	51 (35-61)	46 (31-55)	40 (27-49)	35 (23-43)	30 (20-38)	26 (17-33)	22 (15-28)	19 (13-24)
5	76 (63-80)	72 (57-77)	67 (51-73)	62 (45-68)	57 (40-63)	51 (35-58)	46 (31-52)	40 (27-47)	35 (24-41)	30 (20-36)	26 (18-31)
6	81	79	76	72	67	62	57	51	45	40	34