

South Africa (Indian) - 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 South Africa (Indian). 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	14	8.8	5.9	4.3	3.3	2.7	2.3	2.1	2.0	1.9	1.8
1	21 (18-27)	14 (12-17)	9.1 (7.7-11)	6.5 (5.2-8.2)	5.0 (3.7-6.3)	4.1 (2.9-5.3)	3.4 (2.3-4.6)	3.1 (2.0-4.2)	2.9 (1.9-4.1)	2.8 (1.8-3.9)	2.7 (1.7-3.8)
2	31 (24-43)	20 (16-28)	14 (10-19)	9.8 (6.9-14)	7.5 (4.8-11)	6.1 (3.6-9.8)	5.1 (2.8-8.5)	4.6 (2.5-7.8)	4.3 (2.3-7.5)	4.1 (2.1-7.2)	4.0 (2.0-7.0)
3	44 (32-57)	29 (21-39)	20 (14-28)	14 (9.2-22)	11 (6.4-18)	8.9 (4.7-16)	7.4 (3.7-14)	6.7 (3.2-13)	6.3 (2.9-12)	6.0 (2.8-11)	5.8 (2.6-11)
4	58 (43-71)	41 (28-50)	29 (19-36)	21 (14-28)	16 (10-23)	13 (7.9-20)	11 (6.1-17)	9.5 (5.2-16)	9.0 (4.8-15)	8.6 (4.5-15)	8.2 (4.2-14)
5	73 (63-82)	55 (44-62)	40 (31-44)	29 (22-34)	22 (17-28)	18 (14-23)	15 (11-20)	13 (9.7-19)	13 (8.8-18)	12 (8.2-17)	11 (7.8-16)
6	85	69	53	39	30	24	20	18	17	16	16

Ten years probability of osteoporotic fractures (%) according to BMD, the number of clinical risk factors (CRF) and age in women from South Africa (Indian).

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	17	12	8.0	5.9	4.6	3.7	3.1	2.8	2.6	2.5	2.3
1	26 (23-31)	17 (15-21)	12 (10-15)	8.9 (7.1-11)	6.9 (5.2-8.5)	5.6 (4.0-7.2)	4.6 (3.2-6.2)	4.2 (2.8-5.8)	3.9 (2.6-5.4)	3.7 (2.4-5.2)	3.5 (2.3-4.9)
2	36 (30-48)	25 (21-34)	18 (14-24)	13 (9.4-18)	10 (6.7-15)	8.2 (5.0-13)	6.8 (3.9-11)	6.2 (3.4-10)	5.8 (3.1-9.7)	5.4 (2.8-9.2)	5.1 (2.7-8.8)
3	50 (38-61)	35 (27-45)	26 (19-35)	19 (13-28)	15 (8.9-24)	12 (6.6-20)	9.8 (5.1-17)	8.9 (4.4-16)	8.3 (4.0-15)	7.8 (3.7-15)	7.4 (3.4-14)
4	64 (50-74)	48 (35-56)	35 (25-44)	27 (19-36)	21 (14-30)	17 (11-25)	14 (8.4-22)	13 (7.2-20)	12 (6.5-19)	11 (5.9-18)	10 (5.5-18)
5	77 (69-84)	62 (53-68)	47 (39-53)	36 (29-43)	28 (23-35)	23 (18-30)	19 (15-26)	17 (13-24)	16 (12-22)	15 (11-21)	14 (9.9-20)
6	87	75	61	48	38	31	26	24	22	21	20

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	21	15	11	7.9	6.1	4.9	4.2	3.8	3.4	3.2	3.0
1	31 (28-35)	22 (19-25)	16 (13-18)	12 (9.3-14)	9.0 (6.8-11)	7.2 (5.2-9.3)	6.1 (4.3-8.2)	5.5 (3.7-7.6)	5.1 (3.4-7.1)	4.7 (3.1-6.6)	4.4 (2.9-6.2)
2	42 (36-52)	31 (26-39)	22 (18-29)	17 (12-23)	13 (8.8-19)	11 (6.6-16)	8.9 (5.3-14)	8.0 (4.6-13)	7.4 (4.0-12)	6.8 (3.7-11)	6.4 (3.4-11)
3	55 (45-65)	42 (33-52)	31 (24-42)	24 (16-35)	19 (12-29)	15 (8.7-25)	13 (6.9-22)	11 (5.9-20)	10 (5.3-19)	9.7 (4.8-18)	9.1 (4.4-17)
4	69 (56-76)	54 (42-62)	42 (31-51)	33 (24-43)	26 (19-36)	21 (14-31)	18 (11-27)	16 (9.6-25)	15 (8.4-24)	14 (7.6-22)	13 (7.0-21)
5	80 (75-85)	67 (60-72)	54 (47-60)	43 (37-50)	35 (29-42)	28 (23-36)	24 (19-32)	22 (16-29)	20 (14-27)	19 (13-26)	17 (12-24)
6	88	79	67	55	45	37	32	29	27	25	23

Ten years probability of osteoporotic fractures (%) according to BMD, the number of clinical risk factors (CRF) and age in women from South Africa (Indian).

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	23	17	12	9.2	7.2	5.7	5.0	4.4	4.0	3.7	3.4
1	32 (30-36)	24 (21-27)	18 (15-20)	13 (11-16)	10 (8.0-13)	8.3 (6.1-11)	7.3 (5.1-9.7)	6.5 (4.4-8.8)	5.8 (3.9-8.1)	5.3 (3.5-7.5)	4.9 (3.2-7.0)
2	44 (38-52)	33 (28-40)	25 (20-31)	19 (14-25)	15 (10-21)	12 (7.7-18)	10 (6.3-16)	9.3 (5.4-15)	8.4 (4.7-13)	7.7 (4.2-12)	7.1 (3.8-12)
3	56 (48-65)	44 (36-54)	34 (26-45)	26 (19-38)	21 (14-32)	17 (10-27)	15 (8.3-24)	13 (7.0-22)	12 (6.1-21)	11 (5.5-19)	10.0 (4.9-18)
4	69 (58-74)	56 (45-64)	45 (35-55)	35 (27-46)	28 (21-39)	23 (16-33)	20 (13-30)	18 (11-28)	16 (9.8-26)	15 (8.7-24)	14 (7.8-23)
5	79 (75-82)	68 (63-73)	56 (51-63)	46 (40-54)	37 (32-46)	31 (26-39)	27 (21-35)	24 (18-32)	22 (16-30)	20 (14-28)	19 (13-26)
6	86	78	68	57	48	40	35	32	29	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	24	18	13	10	7.9	6.4	5.6	4.9	4.4	3.9	3.6
1	34 (30-40)	25 (22-30)	19 (16-22)	14 (12-17)	11 (8.7-13)	9.0 (6.8-11)	7.8 (5.7-9.0)	6.8 (4.9-8.0)	6.0 (4.3-7.1)	5.4 (3.8-6.4)	4.9 (3.4-5.8)
2	46 (38-56)	35 (28-44)	27 (21-34)	20 (15-26)	16 (11-21)	13 (8.7-17)	11 (7.1-14)	9.3 (6.0-13)	8.2 (5.2-11)	7.4 (4.6-10)	6.6 (4.1-9.2)
3	60 (49-70)	47 (37-59)	37 (27-48)	28 (20-38)	22 (15-31)	17 (11-25)	15 (9.3-22)	13 (7.9-19)	11 (6.8-17)	9.9 (5.9-16)	8.9 (5.3-14)
4	72 (63-79)	61 (51-69)	49 (39-58)	38 (30-47)	30 (23-39)	24 (18-32)	20 (15-28)	17 (12-24)	15 (11-22)	13 (9.3-20)	12 (8.2-18)
5	82 (77-85)	73 (66-78)	62 (54-68)	50 (43-57)	40 (34-47)	32 (27-39)	27 (23-33)	23 (19-29)	20 (17-26)	17 (15-23)	16 (13-21)
6	87	82	74	63	52	42	36	30	26	23	20

Ten years probability of osteoporotic fractures (%) according to BMD, the number of clinical risk factors (CRF) and age in women from South Africa (Indian).

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	25	19	14	11	8.7	7.3	6.3	5.5	4.8	4.3	3.8
1	36 (30-53)	28 (22-41)	21 (17-31)	16 (12-23)	13 (9.5-17)	10 (7.7-13)	8.7 (6.4-10)	7.4 (5.4-8.5)	6.4 (4.7-7.5)	5.6 (4.1-6.7)	5.0 (3.6-6.0)
2	50 (38-68)	40 (29-57)	31 (22-45)	24 (16-35)	18 (12-26)	15 (9.8-20)	12 (8.1-16)	10 (6.7-13)	8.6 (5.7-12)	7.5 (5.0-10)	6.5 (4.3-9.3)
3	64 (48-77)	53 (37-68)	43 (28-57)	34 (21-46)	26 (16-36)	21 (13-29)	17 (11-24)	14 (8.8-19)	12 (7.5-16)	9.9 (6.4-14)	8.6 (5.6-12)
4	75 (59-83)	67 (49-77)	57 (39-67)	46 (30-56)	36 (23-45)	29 (19-37)	23 (16-30)	19 (13-25)	16 (11-21)	13 (9.9-18)	11 (8.5-15)
5	83 (71-87)	77 (62-82)	70 (52-76)	60 (42-66)	49 (34-55)	40 (28-46)	32 (24-38)	26 (20-31)	21 (17-26)	18 (15-22)	15 (13-19)
6	87	84	80	73	63	53	44	36	29	24	20

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	25	19	15	12	9.4	7.9	6.7	5.7	5.0	4.3	3.8
1	36 (29-52)	28 (22-42)	22 (17-32)	17 (13-25)	13 (10-19)	11 (8.3-15)	9.3 (6.9-12)	7.9 (5.8-9.5)	6.7 (4.9-7.7)	5.7 (4.2-6.6)	5.0 (3.6-5.8)
2	48 (36-64)	39 (29-55)	31 (22-45)	24 (17-36)	19 (13-28)	16 (11-23)	13 (8.8-18)	11 (7.3-15)	9.1 (6.1-12)	7.7 (5.1-10.0)	6.6 (4.4-8.8)
3	60 (46-73)	51 (37-65)	42 (29-56)	34 (22-46)	27 (17-37)	22 (14-30)	18 (12-25)	15 (9.5-21)	12 (8.0-17)	10 (6.7-14)	8.8 (5.7-12)
4	70 (55-79)	63 (46-73)	55 (37-65)	46 (30-55)	37 (24-46)	31 (20-38)	25 (16-32)	21 (14-26)	17 (12-22)	14 (9.9-19)	12 (8.5-16)
5	78 (65-83)	73 (57-78)	66 (49-72)	58 (40-64)	49 (33-55)	41 (28-47)	34 (24-40)	28 (20-33)	23 (17-28)	19 (15-23)	16 (13-19)
6	84	80	75	69	61	53	45	38	31	26	21

Ten years probability of osteoporotic fractures (%) according to BMD, the number of clinical risk factors (CRF) and age in women from South Africa (Indian).

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	24	19	15	12	9.8	8.2	6.9	5.8	5.0	4.2	3.6
1	34 (27-50)	28 (21-42)	22 (17-34)	17 (13-26)	14 (11-21)	12 (8.7-17)	9.9 (7.2-14)	8.2 (6.0-11)	6.9 (5.0-8.9)	5.8 (4.2-7.3)	4.9 (3.5-5.9)
2	45 (34-60)	38 (28-53)	31 (22-45)	25 (17-37)	21 (14-30)	17 (11-25)	14 (9.4-21)	12 (7.7-17)	9.7 (6.4-14)	8.1 (5.3-11)	6.7 (4.5-9.2)
3	56 (43-69)	49 (35-62)	42 (29-55)	34 (23-46)	29 (18-39)	24 (15-33)	20 (12-27)	16 (10-23)	14 (8.5-19)	11 (7.0-16)	9.3 (5.9-13)
4	66 (51-75)	60 (44-69)	53 (36-63)	45 (30-55)	39 (25-48)	33 (21-41)	28 (17-35)	23 (14-29)	19 (12-24)	16 (10-20)	13 (8.6-17)
5	74 (60-79)	69 (53-75)	63 (46-70)	56 (39-63)	50 (33-57)	44 (29-50)	37 (24-43)	31 (21-37)	26 (17-31)	22 (15-26)	18 (13-22)
6	80	77	72	67	61	55	48	42	35	30	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	22	18	14	11	9.5	7.9	6.6	5.5	4.6	3.8	3.2
1	31 (24-47)	26 (20-40)	21 (16-33)	17 (13-27)	14 (11-23)	12 (8.7-19)	9.9 (7.2-16)	8.2 (6.0-13)	6.8 (4.9-10)	5.7 (4.1-8.4)	4.7 (3.4-6.8)
2	41 (31-57)	35 (25-50)	30 (21-43)	25 (17-37)	21 (14-32)	17 (12-27)	15 (9.7-23)	12 (8.0-19)	10 (6.6-16)	8.3 (5.4-13)	6.9 (4.5-10)
3	52 (39-65)	46 (32-59)	40 (27-53)	34 (22-46)	29 (19-41)	25 (16-35)	21 (13-30)	18 (11-25)	15 (8.9-21)	12 (7.3-17)	10 (6.0-14)
4	62 (47-71)	56 (41-66)	50 (34-61)	45 (29-55)	39 (25-49)	34 (21-44)	30 (18-38)	25 (15-32)	21 (12-27)	18 (10-23)	15 (8.5-19)
5	70 (55-76)	66 (49-72)	61 (43-67)	55 (37-62)	50 (33-57)	45 (28-52)	40 (24-46)	35 (21-40)	30 (17-35)	25 (15-30)	21 (12-25)
6	77	74	70	65	61	56	51	45	40	34	29