

South Africa (African) - 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 Africa (African). 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	9.3	5.6	3.5	2.4	1.7	1.3	1.1	0.9	0.8	0.8	0.7
1	14 (11-18)	8.5 (7.3-11)	5.4 (4.7-7.1)	3.6 (3.0-4.7)	2.6 (2.0-3.3)	2.0 (1.4-2.5)	1.6 (1.1-2.0)	1.3 (0.9-1.8)	1.2 (0.8-1.6)	1.1 (0.7-1.6)	1.1 (0.7-1.5)
2	20 (15-29)	13 (9.5-18)	8.1 (6.1-11)	5.4 (4.0-7.6)	3.8 (2.7-5.6)	2.9 (1.8-4.5)	2.3 (1.4-3.8)	2.0 (1.1-3.3)	1.7 (0.9-3.1)	1.6 (0.8-2.9)	1.6 (0.8-2.8)
3	29 (20-38)	18 (13-25)	12 (8.3-16)	7.9 (5.6-11)	5.6 (3.6-8.7)	4.2 (2.5-7.1)	3.4 (1.8-6.0)	2.8 (1.4-5.2)	2.5 (1.2-4.7)	2.4 (1.1-4.5)	2.3 (1.0-4.4)
4	39 (28-48)	26 (18-33)	17 (11-21)	11 (7.5-15)	8.1 (5.3-11)	6.1 (4.0-9.2)	4.8 (2.9-7.7)	4.0 (2.2-6.7)	3.5 (1.9-6.1)	3.3 (1.7-5.8)	3.2 (1.6-5.6)
5	50 (40-58)	35 (27-42)	24 (18-28)	16 (12-19)	11 (8.3-14)	8.5 (6.2-11)	6.7 (4.9-9.3)	5.6 (4.1-8.0)	4.9 (3.5-7.2)	4.6 (3.2-6.9)	4.4 (3.0-6.6)
6	61	46	32	22	16	12	9.3	7.7	6.7	6.3	6.0

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

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	9.5	5.9	3.8	2.6	1.9	1.4	1.1	0.9	0.8	0.8	0.7
1	14 (12-18)	8.9 (7.8-11)	5.8 (5.1-7.2)	3.9 (3.3-4.9)	2.8 (2.2-3.5)	2.1 (1.6-2.6)	1.7 (1.2-2.2)	1.4 (0.9-1.9)	1.2 (0.8-1.7)	1.1 (0.7-1.6)	1.1 (0.7-1.5)
2	20 (15-27)	13 (9.9-18)	8.5 (6.6-12)	5.8 (4.5-7.9)	4.1 (3.0-5.8)	3.1 (2.1-4.7)	2.5 (1.5-3.9)	2.0 (1.2-3.4)	1.8 (1.0-3.1)	1.7 (0.9-2.9)	1.6 (0.8-2.8)
3	28 (21-36)	19 (13-24)	12 (8.9-16)	8.4 (6.1-12)	6.0 (4.1-9.0)	4.5 (2.8-7.2)	3.5 (2.0-6.0)	2.9 (1.5-5.2)	2.6 (1.3-4.7)	2.4 (1.1-4.5)	2.2 (1.1-4.3)
4	38 (28-46)	26 (18-32)	17 (12-21)	12 (8.2-15)	8.5 (5.8-12)	6.4 (4.3-9.4)	5.0 (3.2-7.8)	4.1 (2.4-6.7)	3.6 (2.0-6.1)	3.4 (1.8-5.8)	3.2 (1.6-5.5)
5	48 (40-55)	34 (28-40)	24 (19-27)	17 (13-19)	12 (9.1-15)	8.9 (6.7-12)	7.0 (5.3-9.5)	5.7 (4.3-8.0)	5.0 (3.7-7.3)	4.6 (3.2-6.8)	4.4 (2.9-6.5)
6	58	44	32	23	16	12	9.5	7.7	6.8	6.3	5.9

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	8.4	5.5	3.8	2.6	1.9	1.5	1.2	1.0	0.9	0.8	0.7
1	12 (11-15)	8.1 (7.4-9.7)	5.5 (4.8-6.6)	3.9 (3.2-4.7)	2.8 (2.2-3.4)	2.2 (1.6-2.6)	1.7 (1.2-2.2)	1.4 (1.0-1.9)	1.2 (0.8-1.7)	1.1 (0.7-1.6)	1.1 (0.7-1.5)
2	17 (13-22)	12 (9.1-15)	8.0 (6.3-11)	5.7 (4.4-7.4)	4.1 (3.1-5.7)	3.1 (2.2-4.6)	2.5 (1.6-3.8)	2.0 (1.2-3.3)	1.8 (1.0-3.0)	1.7 (0.9-2.8)	1.5 (0.8-2.6)
3	24 (18-30)	17 (12-21)	11 (8.6-14)	8.1 (6.1-11)	5.9 (4.2-8.7)	4.5 (2.9-7.0)	3.5 (2.1-5.8)	2.9 (1.6-5.0)	2.6 (1.4-4.6)	2.3 (1.2-4.3)	2.2 (1.1-4.0)
4	32 (25-39)	23 (17-28)	16 (12-19)	11 (8.2-14)	8.3 (5.9-11)	6.3 (4.5-9.1)	5.0 (3.3-7.6)	4.0 (2.5-6.4)	3.6 (2.1-5.9)	3.3 (1.8-5.5)	3.0 (1.6-5.2)
5	41 (35-47)	30 (25-34)	22 (18-25)	16 (13-18)	11 (9.1-14)	8.7 (6.8-11)	6.8 (5.3-9.3)	5.5 (4.3-7.8)	4.9 (3.7-7.1)	4.5 (3.2-6.5)	4.1 (2.8-6.1)
6	50	39	29	21	16	12	9.2	7.5	6.6	6.0	5.5

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

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	7.3	5.0	3.6	2.6	1.9	1.5	1.2	1.0	0.9	0.8	0.7
1	10 (9.4-12)	7.3 (6.6-8.3)	5.2 (4.5-5.9)	3.8 (3.1-4.3)	2.8 (2.2-3.3)	2.2 (1.6-2.6)	1.7 (1.2-2.1)	1.4 (1.0-1.8)	1.2 (0.8-1.7)	1.1 (0.7-1.5)	1.0 (0.7-1.4)
2	15 (12-18)	10 (8.2-13)	7.4 (5.9-9.3)	5.4 (4.3-6.8)	4.0 (3.0-5.4)	3.1 (2.2-4.4)	2.4 (1.6-3.6)	2.0 (1.3-3.1)	1.8 (1.1-2.8)	1.6 (0.9-2.6)	1.4 (0.8-2.4)
3	20 (16-25)	14 (11-18)	10 (8.0-13)	7.6 (5.9-10)	5.7 (4.2-8.1)	4.4 (3.0-6.6)	3.4 (2.2-5.5)	2.8 (1.7-4.7)	2.5 (1.4-4.3)	2.2 (1.2-4.0)	2.0 (1.0-3.7)
4	27 (21-32)	19 (15-23)	14 (11-17)	10 (7.9-13)	7.9 (5.9-11)	6.1 (4.5-8.6)	4.8 (3.4-7.1)	3.9 (2.6-6.1)	3.4 (2.1-5.6)	3.1 (1.8-5.1)	2.8 (1.6-4.7)
5	34 (30-39)	26 (22-29)	19 (16-22)	14 (12-17)	11 (8.8-13)	8.3 (6.7-11)	6.5 (5.3-8.7)	5.3 (4.3-7.4)	4.7 (3.6-6.7)	4.2 (3.1-6.1)	3.8 (2.7-5.6)
6	42	33	25	19	14	11	8.7	7.2	6.3	5.6	5.1

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	6.5	4.7	3.4	2.6	1.9	1.5	1.2	1.0	0.9	0.8	0.7
1	9.7 (8.3-12)	7.0 (5.9-8.9)	5.1 (4.2-6.4)	3.8 (3.0-4.7)	2.8 (2.2-3.5)	2.2 (1.7-2.7)	1.7 (1.3-2.1)	1.4 (1.0-1.7)	1.2 (0.9-1.4)	1.1 (0.7-1.3)	0.9 (0.6-1.1)
2	14 (11-18)	10 (8.1-14)	7.6 (5.8-10.0)	5.6 (4.2-7.4)	4.2 (3.1-5.6)	3.2 (2.3-4.3)	2.4 (1.7-3.3)	2.0 (1.3-2.7)	1.7 (1.1-2.4)	1.5 (0.9-2.1)	1.3 (0.8-1.8)
3	21 (16-26)	15 (11-20)	11 (8.2-15)	8.2 (5.8-11)	6.1 (4.2-8.5)	4.6 (3.1-6.5)	3.5 (2.3-5.1)	2.8 (1.8-4.2)	2.3 (1.5-3.6)	2.0 (1.2-3.1)	1.8 (1.1-2.8)
4	29 (23-35)	22 (17-27)	16 (12-20)	12 (8.8-15)	8.8 (6.4-11)	6.6 (4.7-8.7)	5.0 (3.5-6.8)	3.9 (2.7-5.5)	3.3 (2.2-4.7)	2.8 (1.9-4.1)	2.4 (1.6-3.6)
5	39 (32-43)	30 (24-34)	23 (18-26)	17 (13-20)	13 (9.8-15)	9.4 (7.3-12)	7.1 (5.5-8.9)	5.6 (4.3-7.1)	4.5 (3.6-6.0)	3.8 (3.0-5.1)	3.2 (2.6-4.4)
6	49	40	31	24	18	13	10	7.8	6.3	5.2	4.4

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

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	5.8	4.4	3.4	2.6	2.0	1.6	1.3	1.1	0.9	0.8	0.7
1	9.7 (7.1-18)	7.3 (5.3-13)	5.5 (4.0-9.7)	4.2 (3.0-7.1)	3.2 (2.3-5.3)	2.4 (1.7-3.9)	1.9 (1.4-2.9)	1.6 (1.1-2.3)	1.3 (0.9-1.8)	1.1 (0.8-1.5)	1.0 (0.7-1.2)
2	15 (9.8-25)	12 (7.3-19)	8.8 (5.4-15)	6.6 (4.1-11)	5.0 (3.1-8.1)	3.8 (2.4-6.0)	2.9 (1.8-4.5)	2.3 (1.5-3.5)	1.9 (1.2-2.8)	1.6 (1.0-2.3)	1.4 (0.9-1.9)
3	23 (14-34)	18 (10-27)	14 (7.7-20)	10 (5.7-15)	7.8 (4.3-12)	5.9 (3.3-8.7)	4.4 (2.5-6.6)	3.5 (2.0-5.2)	2.8 (1.6-4.2)	2.3 (1.4-3.4)	1.9 (1.2-2.8)
4	34 (19-43)	27 (14-35)	21 (11-27)	16 (8.3-21)	12 (6.3-16)	9.0 (4.8-12)	6.8 (3.7-9.1)	5.3 (3.0-7.2)	4.2 (2.4-5.7)	3.4 (2.0-4.6)	2.8 (1.7-3.8)
5	45 (26-52)	37 (20-43)	30 (16-35)	23 (12-28)	18 (9.2-21)	14 (7.1-16)	10 (5.5-12)	8.0 (4.4-9.7)	6.2 (3.7-7.7)	4.9 (3.1-6.2)	4.0 (2.7-5.0)
6	57	49	41	33	26	20	15	12	9.3	7.3	5.8

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	5.1	4.1	3.2	2.6	2.1	1.7	1.4	1.2	1.0	0.9	0.8
1	8.3 (6.0-15)	6.5 (4.7-12)	5.1 (3.6-9.0)	4.0 (2.9-6.9)	3.2 (2.2-5.3)	2.5 (1.8-4.1)	2.0 (1.4-3.2)	1.7 (1.2-2.6)	1.4 (1.0-2.1)	1.2 (0.9-1.7)	1.1 (0.8-1.4)
2	13 (8.1-21)	10 (6.4-17)	8.0 (5.0-13)	6.2 (3.9-10)	4.9 (3.1-8.0)	3.8 (2.4-6.2)	3.0 (1.9-4.8)	2.5 (1.6-3.9)	2.1 (1.3-3.2)	1.8 (1.1-2.6)	1.5 (1.0-2.2)
3	19 (11-29)	15 (8.6-23)	12 (6.8-18)	9.5 (5.4-14)	7.4 (4.2-11)	5.8 (3.3-8.7)	4.6 (2.6-6.8)	3.7 (2.2-5.5)	3.1 (1.8-4.4)	2.6 (1.5-3.7)	2.1 (1.3-3.1)
4	28 (15-37)	23 (12-30)	18 (9.4-24)	14 (7.4-19)	11 (5.8-15)	8.8 (4.6-12)	6.9 (3.7-9.3)	5.6 (3.1-7.5)	4.5 (2.6-6.1)	3.7 (2.2-5.0)	3.1 (1.9-4.1)
5	38 (21-44)	32 (17-37)	26 (13-30)	21 (11-25)	17 (8.3-20)	13 (6.6-16)	10 (5.3-12)	8.3 (4.4-10)	6.7 (3.7-8.2)	5.4 (3.2-6.7)	4.4 (2.7-5.6)
6	49	42	35	29	24	19	15	12	9.8	7.9	6.4

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

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	4.6	3.8	3.1	2.5	2.1	1.7	1.4	1.2	1.1	1.0	0.8
1	7.3 (5.1-13)	5.9 (4.2-11)	4.8 (3.4-8.4)	3.9 (2.7-6.8)	3.2 (2.2-5.4)	2.6 (1.8-4.3)	2.2 (1.5-3.5)	1.8 (1.3-2.9)	1.6 (1.1-2.4)	1.4 (0.9-2.0)	1.2 (0.8-1.7)
2	11 (7.0-18)	9.1 (5.7-15)	7.4 (4.6-12)	6.0 (3.7-9.8)	4.9 (3.0-7.9)	3.9 (2.4-6.3)	3.2 (2.0-5.2)	2.8 (1.7-4.3)	2.3 (1.5-3.6)	2.0 (1.3-3.0)	1.7 (1.1-2.6)
3	17 (9.4-25)	14 (7.7-21)	11 (6.3-17)	9.1 (5.1-14)	7.4 (4.2-11)	6.0 (3.4-9.0)	4.9 (2.8-7.3)	4.1 (2.4-6.1)	3.5 (2.0-5.1)	2.9 (1.7-4.2)	2.5 (1.5-3.6)
4	24 (13-32)	20 (11-27)	16 (8.7-22)	13 (7.0-18)	11 (5.7-15)	8.9 (4.7-12)	7.3 (3.9-10.0)	6.1 (3.3-8.3)	5.1 (2.8-6.9)	4.3 (2.4-5.8)	3.6 (2.1-4.9)
5	32 (17-38)	28 (14-33)	23 (12-28)	19 (9.8-23)	16 (8.0-19)	13 (6.6-16)	11 (5.5-13)	9.1 (4.7-11)	7.6 (4.0-9.3)	6.3 (3.4-7.9)	5.3 (3.0-6.6)
6	43	37	32	27	23	19	16	13	11	9.3	7.8

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	4.2	3.5	2.9	2.5	2.1	1.7	1.5	1.3	1.1	1.0	0.9
1	6.5 (4.5-11)	5.4 (3.8-9.6)	4.6 (3.1-8.0)	3.8 (2.6-6.6)	3.2 (2.2-5.5)	2.6 (1.8-4.5)	2.3 (1.6-3.8)	2.0 (1.4-3.3)	1.7 (1.2-2.8)	1.5 (1.0-2.4)	1.3 (0.9-2.1)
2	9.9 (6.1-16)	8.3 (5.1-14)	7.0 (4.3-11)	5.8 (3.6-9.5)	4.9 (3.0-7.9)	4.0 (2.5-6.6)	3.5 (2.1-5.6)	3.0 (1.9-4.8)	2.6 (1.6-4.2)	2.3 (1.4-3.6)	2.0 (1.2-3.1)
3	15 (8.3-22)	12 (7.0-19)	10 (5.9-16)	8.8 (4.9-13)	7.3 (4.1-11)	6.1 (3.4-9.3)	5.3 (3.0-8.0)	4.5 (2.6-6.9)	3.9 (2.2-5.9)	3.4 (1.9-5.1)	2.9 (1.7-4.3)
4	21 (11-28)	18 (9.5-24)	15 (8.0-21)	13 (6.8-18)	11 (5.7-15)	9.2 (4.7-13)	7.9 (4.1-11)	6.8 (3.5-9.4)	5.9 (3.1-8.1)	5.1 (2.7-6.9)	4.4 (2.3-6.0)
5	29 (15-34)	25 (13-30)	22 (11-26)	19 (9.3-23)	16 (7.8-19)	13 (6.6-16)	12 (5.7-14)	10 (5.0-12)	8.7 (4.3-11)	7.5 (3.8-9.3)	6.5 (3.3-8.0)
6	38	34	30	26	23	19	17	15	13	11	9.5