South Africa (White) - The probabilities of a hip fracture in men

The following tables give the 10-year probability (%) of a hip 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 (White). 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	10.0	5.4	2.8	1.5	0.8	0.4	0.2	0.1	0.1	0.0	0.0
1	16 (10-20)	8.5 (5.6-11)	4.5 (3.0-6.0)	2.4 (1.6-3.2)	1.3 (0.8-1.7)	0.7 (0.4-0.9)	0.3 (0.2-0.5)	0.2 (0.1-0.2)	0.1 (0.1-0.1)	0.1 (0.0-0.1)	0.0 (0.0-0.0)
2	23 (15-34)	13 (7.9-19)	7.1 (4.2-11)	3.8 (2.2-5.8)	2.0 (1.2-3.1)	1.1 (0.6-1.6)	0.6 (0.3-0.9)	0.3 (0.2-0.4)	0.2 (0.1-0.2)	0.1 (0.1-0.1)	0.0 (0.0-0.1)
3	34 (21-49)	20 (12-30)	11 (6.4-17)	6.0 (3.4-9.6)	3.2 (1.8-5.2)	1.7 (0.9-2.7)	0.9 (0.5-1.4)	0.5 (0.3-0.8)	0.2 (0.1-0.4)	0.1 (0.1-0.2)	0.1 (0.0-0.1)
4	47 (33-63)	29 (19-42)	17 (11-25)	9.2 (5.7-14)	4.9 (3.0-7.8)	2.6 (1.6-4.1)	1.4 (0.8-2.2)	0.7 (0.4-1.2)	0.4 (0.2-0.6)	0.2 (0.1-0.3)	0.1 (0.1-0.2)
5	61 (51-74)	41 (32-53)	25 (18-34)	14 (10-20)	7.5 (5.5-11)	4.0 (2.9-5.8)	2.1 (1.5-3.1)	1.1 (0.8-1.6)	0.6 (0.4-0.9)	0.3 (0.2-0.5)	0.2 (0.1-0.3)
6	76	55	35	20	11	6.1	3.3	1.7	0.9	0.5	0.3

FRAX® WHO Fracture Risk Assessment Tool

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

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	11	6.1	3.4	1.8	1.0	0.6	0.3	0.2	0.1	0.1	0.0
1	17 (11-20)	9.4 (6.4-12)	5.3 (3.5-6.5)	2.9 (1.9-3.6)	1.6 (1.1-2.0)	0.9 (0.6-1.1)	0.5 (0.3-0.6)	0.3 (0.2-0.3)	0.1 (0.1-0.2)	0.1 (0.1-0.1)	0.0 (0.0-0.1)
2	24 (16-33)	14 (9.0-20)	8.1 (5.0-12)	4.5 (2.7-6.5)	2.5 (1.5-3.6)	1.4 (0.8-2.0)	0.7 (0.4-1.1)	0.4 (0.2-0.6)	0.2 (0.1-0.3)	0.1 (0.1-0.2)	0.1 (0.0-0.1)
3	35 (23-48)	21 (13-31)	12 (7.5-18)	6.9 (4.2-11)	3.8 (2.3-6.0)	2.1 (1.3-3.3)	1.2 (0.7-1.8)	0.6 (0.4-1.0)	0.4 (0.2-0.6)	0.2 (0.1-0.3)	0.1 (0.1-0.2)
4	47 (35-62)	30 (21-42)	18 (12-27)	10 (6.9-16)	5.9 (3.8-8.9)	3.2 (2.1-5.0)	1.8 (1.2-2.8)	1.0 (0.6-1.5)	0.5 (0.4-0.9)	0.3 (0.2-0.5)	0.2 (0.1-0.3)
5	61 (53-72)	42 (35-54)	26 (21-35)	15 (12-21)	8.8 (6.9-12)	4.9 (3.8-7.0)	2.7 (2.1-3.9)	1.5 (1.2-2.1)	0.8 (0.6-1.2)	0.5 (0.4-0.7)	0.3 (0.2-0.4)
6	74	55	37	22	13	7.4	4.1	2.3	1.3	0.7	0.4

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	11	6.3	3.7	2.2	1.3	0.7	0.4	0.2	0.1	0.1	0.1
1	16 (11-18)	9.6 (6.6-11)	5.7 (3.9-6.6)	3.3 (2.3-3.9)	1.9 (1.3-2.3)	1.1 (0.8-1.3)	0.7 (0.4-0.8)	0.4 (0.3-0.4)	0.2 (0.2-0.3)	0.1 (0.1-0.2)	0.1 (0.1-0.1)
2	23 (15-30)	14 (9.3-19)	8.6 (5.5-12)	5.1 (3.2-6.9)	3.0 (1.9-4.1)	1.7 (1.1-2.4)	1.0 (0.6-1.4)	0.6 (0.4-0.8)	0.3 (0.2-0.5)	0.2 (0.1-0.3)	0.1 (0.1-0.2)
3	32 (23-43)	21 (14-29)	13 (8.3-18)	7.6 (4.9-11)	4.5 (2.8-6.6)	2.6 (1.7-3.9)	1.5 (1.0-2.3)	0.9 (0.6-1.3)	0.5 (0.3-0.8)	0.3 (0.2-0.5)	0.2 (0.1-0.3)
4	44 (34-56)	29 (22-40)	18 (13-26)	11 (8.0-16)	6.7 (4.7-9.9)	4.0 (2.8-5.9)	2.3 (1.6-3.5)	1.4 (0.9-2.0)	0.8 (0.6-1.2)	0.5 (0.3-0.7)	0.3 (0.2-0.4)
5	56 (50-67)	40 (34-50)	26 (22-35)	16 (14-22)	9.9 (8.2-14)	5.9 (4.9-8.3)	3.5 (2.9-4.9)	2.0 (1.7-2.9)	1.2 (1.0-1.7)	0.7 (0.6-1.0)	0.4 (0.4-0.6)
6	68	52	36	23	14	8.7	5.1	3.0	1.8	1.1	0.7

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

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	10	6.3	3.9	2.4	1.5	0.9	0.6	0.4	0.2	0.1	0.1
1	15 (11-17)	9.4 (6.6-11)	5.9 (4.1-6.9)	3.7 (2.6-4.3)	2.3 (1.6-2.7)	1.4 (1.0-1.6)	0.9 (0.6-1.0)	0.5 (0.4-0.6)	0.3 (0.2-0.4)	0.2 (0.2-0.3)	0.1 (0.1-0.2)
2	21 (15-27)	14 (9.3-18)	8.7 (5.8-11)	5.5 (3.6-7.1)	3.4 (2.2-4.4)	2.1 (1.4-2.7)	1.3 (0.8-1.7)	0.8 (0.5-1.1)	0.5 (0.3-0.7)	0.3 (0.2-0.4)	0.2 (0.1-0.3)
3	29 (21-38)	20 (14-26)	13 (8.7-17)	8.0 (5.5-11)	5.0 (3.4-7.0)	3.1 (2.1-4.4)	1.9 (1.3-2.7)	1.2 (0.8-1.7)	0.8 (0.5-1.1)	0.5 (0.3-0.7)	0.3 (0.2-0.4)
4	39 (32-50)	27 (21-36)	18 (14-25)	12 (8.8-16)	7.4 (5.5-10)	4.6 (3.4-6.6)	2.9 (2.1-4.1)	1.8 (1.3-2.6)	1.1 (0.8-1.7)	0.7 (0.5-1.1)	0.5 (0.3-0.7)
5	50 (46-60)	37 (33-46)	25 (22-33)	17 (14-22)	11 (9.0-15)	6.7 (5.7-9.3)	4.2 (3.5-5.8)	2.6 (2.2-3.7)	1.7 (1.4-2.4)	1.1 (0.9-1.5)	0.7 (0.6-1.0)
6	62	47	34	23	15	9.7	6.1	3.9	2.5	1.6	1.0

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	9.8	6.5	4.3	2.8	1.8	1.2	0.8	0.5	0.3	0.2	0.2
1	16 (14-20)	11 (9.1-13)	7.0 (6.0-8.9)	4.6 (4.0-5.9)	3.0 (2.6-3.9)	2.0 (1.7-2.5)	1.3 (1.1-1.7)	0.9 (0.7-1.1)	0.6 (0.5-0.7)	0.4 (0.3-0.5)	0.3 (0.2-0.3)
2	24 (20-31)	17 (13-22)	11 (9.0-15)	7.5 (6.0-10)	5.0 (3.9-6.7)	3.3 (2.6-4.4)	2.1 (1.7-2.9)	1.4 (1.1-1.9)	1.0 (0.8-1.3)	0.6 (0.5-0.9)	0.4 (0.3-0.6)
3	35 (29-42)	25 (20-31)	18 (14-22)	12 (9.1-15)	8.0 (6.0-10)	5.3 (4.0-6.8)	3.5 (2.6-4.5)	2.3 (1.7-3.1)	1.6 (1.2-2.1)	1.1 (0.8-1.4)	0.7 (0.5-0.9)
4	48 (40-54)	37 (29-42)	27 (20-31)	19 (14-22)	13 (9.4-15)	8.5 (6.3-10)	5.7 (4.1-6.9)	3.8 (2.8-4.7)	2.6 (1.9-3.2)	1.7 (1.3-2.2)	1.2 (0.9-1.5)
5	61 (53-64)	50 (42-53)	38 (31-42)	28 (22-31)	20 (15-22)	13 (10-15)	9.1 (7.0-10)	6.2 (4.7-7.0)	4.2 (3.2-4.8)	2.9 (2.2-3.3)	1.9 (1.5-2.2)
6	72	63	51	40	29	21	14	9.8	6.8	4.6	3.1

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

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	10.0	7.0	4.9	3.4	2.3	1.6	1.1	0.8	0.6	0.4	0.3
1	18 (14-35)	13 (9.8-26)	9.3 (6.9-19)	6.6 (4.8-14)	4.6 (3.3-9.8)	3.2 (2.3-6.9)	2.2 (1.6-4.8)	1.6 (1.1-3.4)	1.1 (0.8-2.4)	0.8 (0.6-1.7)	0.6 (0.4-1.2)
2	29 (19-48)	22 (14-38)	16 (9.6-29)	12 (6.8-22)	8.4 (4.7-16)	5.9 (3.3-11)	4.1 (2.2-8.0)	2.9 (1.6-5.8)	2.1 (1.1-4.1)	1.5 (0.8-3.0)	1.1 (0.6-2.1)
3	43 (27-60)	34 (20-50)	26 (14-40)	20 (10-31)	14 (7.1-23)	10 (4.9-17)	7.3 (3.4-12)	5.3 (2.4-8.6)	3.8 (1.7-6.3)	2.7 (1.2-4.5)	1.9 (0.9-3.3)
4	57 (36-68)	48 (28-60)	39 (21-50)	31 (15-40)	23 (11-31)	17 (7.5-23)	12 (5.3-17)	9.0 (3.8-13)	6.6 (2.7-9.4)	4.7 (1.9-6.8)	3.4 (1.4-4.9)
5	69 (48-75)	62 (39-68)	53 (30-59)	44 (23-49)	35 (17-40)	27 (12-31)	20 (8.6-23)	15 (6.2-18)	11 (4.5-13)	8.0 (3.2-9.5)	5.8 (2.3-6.9)
6	78	73	67	59	49	40	31	24	18	13	9.7

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	10	7.5	5.6	4.1	3.0	2.2	1.6	1.2	0.9	0.7	0.5
1	18 (13-35)	14 (9.8-28)	10 (7.2-21)	7.7 (5.3-16)	5.7 (3.9-12)	4.2 (2.9-9.1)	3.1 (2.1-6.7)	2.3 (1.6-5.1)	1.7 (1.2-3.8)	1.3 (0.9-2.9)	1.0 (0.7-2.2)
2	28 (18-46)	22 (13-39)	17 (10-31)	13 (7.5-25)	10 (5.5-19)	7.5 (4.0-14)	5.6 (3.0-11)	4.2 (2.2-8.3)	3.2 (1.7-6.3)	2.4 (1.2-4.8)	1.8 (0.9-3.6)
3	40 (24-57)	33 (19-50)	27 (14-42)	21 (11-34)	17 (8.1-27)	13 (6.0-21)	9.5 (4.4-16)	7.3 (3.4-12)	5.6 (2.5-9.5)	4.2 (1.9-7.2)	3.2 (1.4-5.5)
4	53 (33-65)	46 (27-58)	39 (21-51)	32 (16-43)	26 (12-35)	20 (8.9-28)	16 (6.7-22)	12 (5.1-17)	9.3 (3.8-14)	7.2 (2.9-10)	5.5 (2.2-8.0)
5	65 (43-71)	58 (36-65)	52 (29-58)	44 (23-51)	37 (18-43)	30 (14-36)	24 (10-29)	19 (8.0-23)	15 (6.2-18)	12 (4.7-14)	9.0 (3.6-11)
6	74	69	64	57	50	42	35	29	23	18	14

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

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	10	8.2	6.4	4.9	3.8	2.9	2.3	1.8	1.4	1.1	0.9
1	18 (13-35)	14 (11-29)	11 (8.3-24)	9.1 (6.5-19)	7.1 (5.0-15)	5.6 (3.9-12)	4.4 (3.0-9.5)	3.5 (2.4-7.6)	2.8 (1.9-6.1)	2.2 (1.5-4.8)	1.7 (1.2-3.8)
2	28 (18-45)	23 (14-39)	19 (11-33)	15 (9.0-27)	12 (7.0-22)	9.7 (5.4-18)	7.7 (4.3-15)	6.2 (3.4-12)	5.0 (2.7-9.6)	4.0 (2.1-7.7)	3.2 (1.7-6.2)
3	39 (24-55)	33 (19-49)	28 (16-43)	24 (12-37)	19 (9.8-31)	16 (7.7-25)	13 (6.1-21)	10 (4.9-17)	8.4 (3.9-14)	6.8 (3.1-11)	5.4 (2.5-9.2)
4	51 (31-63)	45 (26-57)	40 (22-51)	34 (18-45)	29 (14-39)	24 (11-33)	20 (9.1-28)	17 (7.3-23)	14 (5.9-19)	11 (4.7-16)	9.0 (3.7-13)
5	62 (41-68)	57 (35-63)	51 (30-58)	46 (25-52)	40 (20-46)	34 (16-40)	29 (13-34)	25 (11-29)	21 (8.9-25)	17 (7.2-21)	14 (5.8-17)
6	72	67	63	58	52	46	41	35	31	26	22

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	11	8.7	7.1	5.8	4.7	3.8	3.2	2.7	2.2	1.8	1.5
1	18 (13-35)	15 (11-30)	13 (9.2-26)	10 (7.5-22)	8.6 (6.2-18)	7.1 (5.0-15)	5.9 (4.2-13)	5.0 (3.5-11)	4.2 (2.9-9.1)	3.5 (2.4-7.7)	2.9 (2.0-6.4)
2	27 (17-45)	23 (15-40)	20 (12-35)	17 (10-30)	14 (8.4-26)	12 (6.9-22)	10 (5.8-19)	8.6 (4.9-16)	7.3 (4.1-14)	6.2 (3.4-12)	5.2 (2.8-9.9)
3	38 (23-53)	33 (20-48)	29 (16-44)	26 (14-39)	22 (12-34)	19 (9.5-30)	16 (8.0-26)	14 (6.8-23)	12 (5.7-20)	10 (4.8-17)	8.7 (4.0-14)
4	49 (30-61)	45 (26-56)	40 (22-52)	36 (19-47)	32 (16-42)	28 (14-38)	24 (12-33)	21 (9.9-30)	19 (8.4-26)	16 (7.1-23)	14 (6.0-19)
5	60 (39-66)	56 (34-62)	52 (30-58)	47 (26-54)	43 (23-49)	38 (19-44)	35 (17-40)	31 (14-36)	27 (12-32)	24 (11-28)	21 (9.0-25)
6	70	66	63	59	54	50	46	42	38	34	30