

Brazil - 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 Brazil. 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	9.1	6.0	4.3	3.3	2.6	2.2	1.9	1.7	1.6	1.6	
1	21 (18-27)	14 (12-18)	9.2 (7.9-12)	6.5 (5.2-8.3)	5.0 (3.7-6.3)	4.0 (2.8-5.1)	3.3 (2.2-4.4)	2.8 (1.9-3.9)	2.6 (1.7-3.6)	2.5 (1.6-3.4)	2.4 (1.5-3.3)	
2	31 (24-42)	20 (16-28)	14 (11-19)	9.8 (7.0-14)	7.4 (4.8-11)	5.9 (3.5-9.4)	4.9 (2.8-8.1)	4.2 (2.3-7.2)	3.8 (2.0-6.6)	3.6 (1.9-6.4)	3.5 (1.8-6.1)	
3	43 (32-55)	29 (21-38)	20 (14-27)	14 (9.5-21)	11 (6.5-17)	8.5 (4.7-15)	7.1 (3.6-13)	6.1 (3.0-11)	5.5 (2.6-10)	5.2 (2.4-10)	5.0 (2.3-9.6)	
4	56 (42-68)	40 (28-49)	28 (19-35)	20 (14-27)	15 (10-22)	12 (7.7-19)	10 (5.9-16)	8.6 (4.8-14)	7.8 (4.1-13)	7.4 (3.8-13)	7.1 (3.6-12)	
5	69 (59-77)	53 (43-60)	39 (30-43)	28 (22-33)	21 (16-27)	17 (13-22)	14 (11-19)	12 (8.9-17)	11 (7.7-15)	10 (7.1-15)	9.9 (6.7-14)	
6	80	66	51	38	29	23	19	16	15	14	13	

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

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	8.6	5.9	4.3	3.3	2.6	2.2	1.9	1.7	1.6	1.5
1	19 (17-23)	13 (11-16)	8.8 (7.5-11)	6.4 (5.1-7.9)	4.9 (3.7-6.0)	3.9 (2.8-5.0)	3.2 (2.2-4.3)	2.8 (1.8-3.8)	2.5 (1.6-3.5)	2.4 (1.5-3.3)	2.2 (1.4-3.2)
2	27 (22-36)	19 (15-25)	13 (10-18)	9.4 (6.9-13)	7.2 (4.8-11)	5.7 (3.5-9.0)	4.7 (2.7-7.8)	4.0 (2.2-6.8)	3.7 (2.0-6.3)	3.4 (1.8-6.0)	3.3 (1.7-5.7)
3	38 (29-47)	26 (20-33)	19 (14-25)	14 (9.2-20)	10 (6.4-17)	8.3 (4.7-14)	6.8 (3.6-12)	5.8 (2.9-11)	5.3 (2.5-9.8)	4.9 (2.3-9.3)	4.7 (2.2-8.9)
4	50 (38-59)	36 (26-42)	26 (18-32)	19 (13-26)	15 (10-21)	12 (7.6-18)	9.6 (5.8-15)	8.1 (4.6-13)	7.4 (4.0-12)	7.0 (3.7-12)	6.6 (3.4-11)
5	62 (53-69)	47 (39-53)	35 (28-40)	26 (21-32)	20 (16-26)	16 (12-21)	13 (10-18)	11 (8.4-16)	10 (7.3-15)	9.6 (6.6-14)	9.1 (6.2-13)
6	73	59	46	35	27	22	18	15	14	13	12

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	12	8.3	5.9	4.4	3.3	2.6	2.2	1.8	1.7	1.5	1.4
1	18 (16-21)	12 (11-14)	8.7 (7.4-10)	6.4 (5.2-7.6)	4.9 (3.7-5.9)	3.9 (2.8-4.9)	3.2 (2.2-4.2)	2.7 (1.8-3.6)	2.4 (1.6-3.4)	2.2 (1.4-3.2)	2.1 (1.3-3.0)
2	25 (20-32)	18 (14-23)	13 (10-16)	9.3 (7.0-12)	7.1 (4.9-10)	5.7 (3.6-8.6)	4.6 (2.8-7.3)	3.9 (2.2-6.3)	3.5 (1.9-5.9)	3.2 (1.7-5.5)	3.0 (1.6-5.2)
3	34 (26-41)	24 (19-30)	18 (14-24)	13 (9.4-19)	10 (6.7-16)	8.0 (4.9-13)	6.6 (3.7-11)	5.5 (2.9-9.7)	5.0 (2.5-9.1)	4.6 (2.3-8.5)	4.3 (2.1-8.0)
4	44 (35-51)	33 (25-38)	24 (18-30)	18 (13-24)	14 (10-20)	11 (7.7-17)	9.2 (5.9-14)	7.7 (4.6-12)	7.0 (4.0-12)	6.4 (3.5-11)	6.0 (3.2-10)
5	55 (48-60)	43 (36-47)	33 (27-37)	25 (20-30)	19 (16-24)	15 (12-20)	13 (10-17)	11 (8.0-15)	9.6 (6.9-14)	8.8 (6.2-13)	8.3 (5.6-12)
6	65	53	42	33	26	21	17	14	13	12	11

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

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	12	8.2	5.9	4.4	3.4	2.6	2.1	1.8	1.6	1.4	1.3
1	17 (15-19)	12 (11-13)	8.6 (7.4-9.8)	6.4 (5.3-7.3)	4.9 (3.8-5.7)	3.8 (2.9-4.7)	3.1 (2.2-3.9)	2.6 (1.8-3.4)	2.3 (1.5-3.1)	2.1 (1.4-2.9)	1.9 (1.2-2.7)
2	23 (19-28)	17 (14-21)	12 (10-15)	9.1 (7.1-12)	7.0 (5.2-9.5)	5.5 (3.8-7.8)	4.4 (2.9-6.6)	3.7 (2.3-5.7)	3.3 (1.9-5.2)	2.9 (1.7-4.8)	2.7 (1.5-4.5)
3	31 (24-37)	23 (18-28)	17 (13-22)	13 (9.8-18)	9.8 (7.0-14)	7.7 (5.1-12)	6.2 (3.8-10)	5.2 (3.0-8.7)	4.6 (2.5-8.0)	4.2 (2.2-7.4)	3.8 (1.9-6.9)
4	40 (32-46)	30 (24-35)	23 (18-28)	18 (13-23)	14 (10-18)	11 (7.9-15)	8.6 (6.0-13)	7.2 (4.7-11)	6.4 (3.9-10)	5.8 (3.4-9.5)	5.3 (3.0-8.8)
5	49 (44-53)	39 (34-43)	30 (26-35)	23 (20-28)	18 (15-23)	14 (12-19)	12 (9.5-16)	9.7 (7.8-13)	8.7 (6.5-12)	7.8 (5.7-11)	7.2 (5.0-10)
6	58	48	39	30	24	19	16	13	12	10	9.6

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	12	8.6	6.4	4.8	3.7	2.9	2.3	1.9	1.7	1.5	1.3
1	17 (15-21)	13 (11-16)	9.4 (7.7-12)	7.0 (5.7-8.7)	5.3 (4.2-6.6)	4.1 (3.2-5.0)	3.2 (2.4-3.9)	2.7 (2.0-3.2)	2.3 (1.7-2.8)	2.0 (1.4-2.4)	1.8 (1.3-2.2)
2	24 (20-31)	18 (14-23)	14 (10-18)	10 (7.7-13)	7.7 (5.7-10)	5.9 (4.3-8.0)	4.6 (3.2-6.3)	3.8 (2.6-5.2)	3.2 (2.1-4.5)	2.8 (1.8-4.0)	2.5 (1.6-3.5)
3	34 (27-41)	26 (20-33)	20 (15-26)	15 (11-20)	11 (7.8-15)	8.4 (5.8-12)	6.5 (4.3-9.5)	5.3 (3.4-7.9)	4.5 (2.8-6.8)	3.9 (2.4-6.0)	3.4 (2.1-5.3)
4	44 (36-51)	35 (28-42)	27 (21-33)	21 (16-26)	16 (12-20)	12 (8.7-16)	9.2 (6.6-12)	7.4 (5.2-10)	6.2 (4.3-8.9)	5.3 (3.6-7.8)	4.6 (3.1-6.9)
5	55 (47-60)	45 (38-51)	37 (30-42)	29 (23-33)	22 (17-26)	17 (13-20)	13 (10-16)	10 (8.1-13)	8.5 (6.8-11)	7.2 (5.7-9.6)	6.2 (5.0-8.4)
6	64	56	47	38	30	23	18	14	12	9.7	8.3

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

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	12	9.3	7.1	5.5	4.3	3.4	2.7	2.3	2.0	1.7	1.5
1	19 (14-33)	15 (11-26)	11 (8.3-20)	8.7 (6.3-15)	6.7 (4.8-11)	5.2 (3.7-8.3)	4.1 (2.9-6.2)	3.4 (2.4-4.9)	2.8 (2.0-3.9)	2.4 (1.7-3.2)	2.1 (1.5-2.6)
2	28 (19-43)	22 (15-35)	18 (11-28)	14 (8.6-22)	10 (6.6-17)	8.0 (5.0-13)	6.1 (3.9-9.5)	5.0 (3.2-7.5)	4.1 (2.6-6.0)	3.4 (2.2-4.8)	2.9 (1.9-4.0)
3	39 (26-53)	32 (20-44)	26 (16-36)	20 (12-29)	16 (9.0-23)	12 (6.9-18)	9.3 (5.3-14)	7.4 (4.3-11)	6.0 (3.5-8.8)	4.9 (2.9-7.2)	4.1 (2.5-6.0)
4	51 (34-61)	43 (27-54)	36 (21-46)	29 (17-38)	23 (13-30)	18 (10-24)	14 (7.7-18)	11 (6.3-15)	8.8 (5.1-12)	7.1 (4.3-9.6)	5.8 (3.6-7.9)
5	61 (42-68)	54 (35-61)	47 (29-54)	40 (23-46)	32 (18-38)	26 (14-31)	20 (11-24)	16 (9.2-19)	13 (7.7-16)	10 (6.5-13)	8.3 (5.5-10)
6	71	65	58	51	43	36	29	23	18	15	12

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	12	9.2	7.3	5.8	4.7	3.7	3.0	2.6	2.2	1.9	1.7
1	18 (13-32)	14 (11-26)	12 (8.4-20)	9.1 (6.6-16)	7.3 (5.2-13)	5.8 (4.1-9.8)	4.6 (3.3-7.6)	3.9 (2.7-6.2)	3.3 (2.3-5.0)	2.8 (1.9-4.1)	2.4 (1.7-3.3)
2	26 (18-41)	21 (14-34)	17 (11-28)	14 (8.9-22)	11 (7.0-18)	8.8 (5.5-14)	7.0 (4.4-11)	5.8 (3.7-9.1)	4.8 (3.1-7.4)	4.0 (2.6-6.1)	3.4 (2.2-5.0)
3	36 (23-49)	30 (19-43)	25 (15-36)	20 (12-30)	16 (9.5-24)	13 (7.6-19)	10 (6.1-16)	8.6 (5.0-13)	7.1 (4.1-10)	5.9 (3.4-8.4)	4.9 (2.9-7.0)
4	46 (29-57)	40 (24-51)	34 (20-44)	29 (16-38)	24 (13-31)	19 (10-25)	15 (8.3-21)	13 (6.9-17)	10 (5.8-14)	8.5 (4.9-11)	7.0 (4.2-9.4)
5	57 (37-63)	51 (32-58)	45 (26-51)	38 (22-45)	32 (18-38)	27 (14-32)	22 (12-26)	18 (9.7-22)	15 (8.1-18)	12 (6.9-15)	10 (5.9-13)
6	67	61	55	49	43	36	30	25	21	18	14

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

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	8.7	7.1	5.9	4.8	4.0	3.4	2.9	2.6	2.3	2.0
1	16 (12-28)	13 (9.5-23)	11 (7.7-19)	9.0 (6.3-16)	7.4 (5.1-13)	6.1 (4.2-10)	5.1 (3.5-8.5)	4.4 (3.0-7.1)	3.8 (2.6-6.0)	3.3 (2.2-5.0)	2.8 (1.9-4.2)
2	23 (15-36)	19 (13-31)	16 (10-26)	13 (8.5-22)	11 (6.9-18)	9.1 (5.7-15)	7.6 (4.7-12)	6.5 (4.0-10)	5.5 (3.5-8.6)	4.7 (3.0-7.2)	4.1 (2.5-6.1)
3	32 (20-45)	28 (17-39)	23 (14-34)	20 (11-29)	16 (9.4-24)	13 (7.8-20)	11 (6.5-17)	9.5 (5.5-14)	8.1 (4.7-12)	6.9 (4.0-10)	5.9 (3.4-8.4)
4	42 (26-53)	37 (22-47)	32 (18-42)	27 (15-36)	23 (13-31)	19 (10-26)	16 (8.8-22)	14 (7.6-19)	12 (6.5-16)	10 (5.5-13)	8.5 (4.7-11)
5	53 (33-60)	48 (29-54)	42 (24-49)	37 (20-43)	32 (17-38)	27 (14-32)	23 (12-28)	20 (10-24)	17 (8.9-21)	14 (7.6-18)	12 (6.6-15)
6	63	59	53	48	42	37	32	28	24	20	17

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	9.5	8.1	6.9	5.9	5.0	4.2	3.7	3.3	3.0	2.7	2.4
1	14 (9.6-23)	12 (8.1-20)	10 (6.9-17)	8.6 (5.8-14)	7.3 (4.9-12)	6.2 (4.1-10)	5.4 (3.6-8.7)	4.8 (3.2-7.6)	4.2 (2.8-6.6)	3.8 (2.5-5.8)	3.3 (2.2-5.0)
2	20 (13-30)	17 (11-26)	15 (9.2-23)	12 (7.8-19)	11 (6.6-16)	9.0 (5.6-14)	7.9 (4.9-12)	6.9 (4.3-10)	6.1 (3.8-9.2)	5.4 (3.3-8.0)	4.7 (2.9-7.0)
3	27 (17-37)	24 (14-33)	20 (12-29)	18 (10-25)	15 (8.9-22)	13 (7.5-19)	11 (6.6-16)	10 (5.8-14)	8.8 (5.1-13)	7.7 (4.5-11)	6.8 (3.9-9.6)
4	36 (22-45)	32 (19-41)	28 (16-36)	24 (14-32)	21 (12-28)	18 (10-24)	16 (8.9-22)	14 (7.8-19)	12 (6.9-17)	11 (6.1-15)	9.6 (5.3-13)
5	46 (28-52)	41 (25-48)	37 (21-43)	33 (19-39)	29 (16-35)	25 (14-30)	22 (12-27)	20 (11-24)	18 (9.4-22)	15 (8.4-19)	14 (7.4-17)
6	56	52	47	43	38	34	30	27	24	22	19