Brazil - 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 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	11	6.0	3.2	1.7	0.9	0.5	0.2	0.1	0.1	0.0	0.0
1	17 (12-22)	9.4 (6.3-12)	5.1 (3.4-6.7)	2.7 (1.8-3.6)	1.4 (0.9-1.9)	0.7 (0.5-1.0)	0.4 (0.3-0.5)	0.2 (0.1-0.3)	0.1 (0.1-0.1)	0.1 (0.0-0.1)	0.0 (0.0-0.0)
2	25 (16-36)	14 (8.8-21)	7.9 (4.7-12)	4.3 (2.5-6.4)	2.3 (1.3-3.4)	1.2 (0.7-1.8)	0.6 (0.4-1.0)	0.3 (0.2-0.5)	0.2 (0.1-0.3)	0.1 (0.1-0.1)	0.1 (0.0-0.1)
3	36 (23-51)	22 (13-32)	12 (7.1-19)	6.6 (3.8-10)	3.5 (2.0-5.7)	1.9 (1.1-3.0)	1.0 (0.6-1.6)	0.5 (0.3-0.8)	0.3 (0.2-0.5)	0.1 (0.1-0.2)	0.1 (0.1-0.1)
4	49 (36-65)	31 (21-44)	18 (12-27)	10 (6.3-15)	5.5 (3.4-8.5)	2.9 (1.8-4.6)	1.5 (0.9-2.4)	0.8 (0.5-1.3)	0.4 (0.3-0.7)	0.2 (0.1-0.4)	0.1 (0.1-0.2)
5	63 (53-75)	43 (34-55)	26 (20-36)	15 (11-21)	8.3 (6.0-12)	4.5 (3.2-6.4)	2.4 (1.7-3.4)	1.3 (0.9-1.8)	0.7 (0.5-1.0)	0.4 (0.3-0.5)	0.2 (0.1-0.3)
6	76	57	37	22	12	6.8	3.6	1.9	1.0	0.6	0.3

Ten year probability of hip 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	9.6	5.4	3.0	1.6	0.9	0.5	0.3	0.1	0.1	0.1	0.0
1	15 (10-18)	8.3 (5.7-10)	4.6 (3.1-5.8)	2.6 (1.7-3.2)	1.4 (0.9-1.8)	0.8 (0.5-1.0)	0.4 (0.3-0.5)	0.2 (0.2-0.3)	0.1 (0.1-0.2)	0.1 (0.1-0.1)	0.0 (0.0-0.1)
2	21 (14-29)	13 (7.9-18)	7.1 (4.4-10)	4.0 (2.4-5.7)	2.2 (1.3-3.2)	1.2 (0.7-1.7)	0.7 (0.4-1.0)	0.4 (0.2-0.5)	0.2 (0.1-0.3)	0.1 (0.1-0.2)	0.1 (0.0-0.1)
3	31 (20-42)	18 (12-27)	11 (6.7-16)	6.0 (3.7-9.1)	3.4 (2.0-5.1)	1.8 (1.1-2.8)	1.0 (0.6-1.6)	0.6 (0.3-0.9)	0.3 (0.2-0.5)	0.2 (0.1-0.3)	0.1 (0.1-0.2)
4	42 (31-55)	26 (19-37)	16 (11-23)	9.1 (6.0-13)	5.1 (3.4-7.7)	2.8 (1.9-4.3)	1.6 (1.0-2.4)	0.9 (0.6-1.3)	0.5 (0.3-0.7)	0.3 (0.2-0.4)	0.2 (0.1-0.2)
5	54 (46-65)	37 (30-47)	23 (18-31)	13 (10-19)	7.6 (5.9-11)	4.3 (3.3-6.0)	2.4 (1.8-3.4)	1.3 (1.0-1.9)	0.7 (0.6-1.0)	0.4 (0.3-0.6)	0.2 (0.2-0.3)
6	67	49	32	19	11	6.3	3.5	2.0	1.1	0.6	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	8.8	5.2	3.1	1.8	1.0	0.6	0.4	0.2	0.1	0.1	0.0
1	13 (9.2-15)	7.8 (5.5-9.3)	4.7 (3.2-5.5)	2.7 (1.9-3.2)	1.6 (1.1-1.9)	0.9 (0.6-1.1)	0.5 (0.4-0.6)	0.3 (0.2-0.4)	0.2 (0.1-0.2)	0.1 (0.1-0.1)	0.1 (0.1-0.1)
2	19 (13-25)	12 (7.7-16)	7.0 (4.6-9.4)	4.1 (2.7-5.6)	2.4 (1.6-3.3)	1.4 (0.9-2.0)	0.8 (0.5-1.1)	0.5 (0.3-0.7)	0.3 (0.2-0.4)	0.2 (0.1-0.2)	0.1 (0.1-0.1)
3	26 (19-35)	17 (11-23)	10 (6.9-14)	6.1 (4.0-8.7)	3.6 (2.4-5.2)	2.1 (1.4-3.1)	1.2 (0.8-1.8)	0.7 (0.5-1.1)	0.4 (0.3-0.6)	0.3 (0.2-0.4)	0.2 (0.1-0.2)
4	36 (28-46)	24 (18-32)	15 (11-21)	9.0 (6.4-13)	5.4 (3.8-7.8)	3.2 (2.2-4.7)	1.9 (1.3-2.8)	1.1 (0.8-1.6)	0.7 (0.5-1.0)	0.4 (0.3-0.6)	0.2 (0.2-0.4)
5	46 (40-56)	32 (27-41)	21 (17-28)	13 (11-18)	7.9 (6.5-11)	4.7 (3.9-6.6)	2.8 (2.3-3.9)	1.6 (1.3-2.3)	1.0 (0.8-1.4)	0.6 (0.5-0.8)	0.4 (0.3-0.5)
6	57	42	29	18	11	6.9	4.1	2.4	1.5	0.9	0.5

FRAX® WHO Fracture Risk Assessment Tool

Ten year probability of hip 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	8.5	5.4	3.4	2.1	1.3	0.8	0.5	0.3	0.2	0.1	0.1
1	12 (9.0-14)	7.9 (5.7-9.0)	5.0 (3.5-5.7)	3.1 (2.2-3.6)	1.9 (1.4-2.2)	1.2 (0.8-1.4)	0.7 (0.5-0.9)	0.5 (0.3-0.5)	0.3 (0.2-0.3)	0.2 (0.1-0.2)	0.1 (0.1-0.1)
2	17 (12-22)	11 (7.9-14)	7.2 (5.0-9.3)	4.6 (3.1-5.9)	2.9 (1.9-3.7)	1.8 (1.2-2.3)	1.1 (0.7-1.4)	0.7 (0.5-0.9)	0.4 (0.3-0.6)	0.3 (0.2-0.4)	0.2 (0.1-0.2)
3	24 (18-31)	16 (12-21)	10 (7.5-14)	6.6 (4.7-8.8)	4.2 (2.9-5.6)	2.6 (1.8-3.5)	1.6 (1.1-2.2)	1.0 (0.7-1.4)	0.7 (0.4-0.9)	0.4 (0.3-0.6)	0.3 (0.2-0.4)
4	32 (26-40)	22 (17-29)	15 (11-20)	9.5 (7.3-13)	6.1 (4.6-8.4)	3.8 (2.9-5.3)	2.4 (1.8-3.4)	1.5 (1.1-2.1)	1.0 (0.7-1.4)	0.6 (0.5-0.9)	0.4 (0.3-0.6)
5	41 (37-49)	30 (26-37)	20 (18-26)	13 (12-18)	8.6 (7.5-12)	5.5 (4.7-7.5)	3.5 (3.0-4.7)	2.2 (1.9-3.0)	1.4 (1.2-1.9)	0.9 (0.8-1.2)	0.6 (0.5-0.8)
6	51	38	27	19	12	7.8	5.0	3.2	2.0	1.3	0.8

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	8.6	5.7	3.8	2.5	1.7	1.1	0.7	0.5	0.3	0.2	0.1
1	13 (12-17)	9.1 (8.0-12)	6.1 (5.3-7.9)	4.1 (3.5-5.3)	2.7 (2.3-3.5)	1.8 (1.5-2.3)	1.2 (1.0-1.5)	0.8 (0.7-1.0)	0.5 (0.5-0.7)	0.4 (0.3-0.5)	0.2 (0.2-0.3)
2	20 (17-26)	14 (12-18)	9.6 (7.9-13)	6.5 (5.3-8.6)	4.3 (3.5-5.7)	2.9 (2.3-3.8)	1.9 (1.5-2.5)	1.3 (1.0-1.7)	0.9 (0.7-1.2)	0.6 (0.5-0.8)	0.4 (0.3-0.5)
3	29 (24-35)	21 (17-26)	15 (12-18)	10 (7.9-13)	6.9 (5.3-8.7)	4.6 (3.5-5.8)	3.0 (2.3-3.9)	2.0 (1.6-2.6)	1.4 (1.1-1.8)	0.9 (0.7-1.2)	0.6 (0.5-0.8)
4	40 (33-46)	30 (24-36)	22 (17-26)	16 (12-19)	11 (8.1-13)	7.2 (5.4-8.7)	4.8 (3.6-5.8)	3.3 (2.4-4.0)	2.2 (1.7-2.7)	1.5 (1.1-1.8)	1.0 (0.8-1.3)
5	51 (43-55)	41 (34-45)	31 (25-34)	23 (18-25)	16 (12-18)	11 (8.5-12)	7.6 (5.8-8.5)	5.2 (3.9-5.8)	3.6 (2.7-4.0)	2.5 (1.8-2.8)	1.7 (1.3-1.9)
6	61	52	42	32	24	17	12	8.1	5.7	3.9	2.7

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Ten year probability of hip 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	8.8	6.2	4.4	3.1	2.2	1.5	1.0	0.7	0.5	0.4	0.3
1	16 (12-31)	11 (8.7-23)	8.2 (6.2-17)	5.8 (4.3-13)	4.1 (3.0-8.9)	2.9 (2.1-6.3)	2.0 (1.5-4.4)	1.5 (1.1-3.2)	1.0 (0.8-2.3)	0.7 (0.5-1.6)	0.5 (0.4-1.2)
2	25 (16-41)	19 (12-32)	14 (8.6-25)	10 (6.1-19)	7.4 (4.3-14)	5.2 (3.0-9.9)	3.7 (2.1-7.0)	2.7 (1.5-5.1)	1.9 (1.1-3.7)	1.4 (0.8-2.7)	1.0 (0.6-1.9)
3	36 (22-51)	29 (16-42)	22 (12-34)	17 (8.6-26)	12 (6.2-20)	8.9 (4.4-14)	6.4 (3.1-10)	4.7 (2.2-7.7)	3.4 (1.6-5.6)	2.5 (1.1-4.1)	1.8 (0.8-2.9)
4	48 (29-59)	40 (23-51)	33 (17-42)	26 (13-34)	20 (9.1-26)	15 (6.5-20)	11 (4.6-14)	7.8 (3.3-11)	5.8 (2.4-7.9)	4.2 (1.7-5.8)	3.0 (1.3-4.2)
5	60 (38-66)	52 (31-59)	45 (24-51)	37 (18-42)	29 (13-34)	22 (9.8-26)	17 (7.0-19)	13 (5.2-15)	9.4 (3.8-11)	6.9 (2.7-8.1)	5.1 (2.0-5.9)
6	70	64	57	49	41	33	25	20	15	11	8.3

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	8.4	6.3	4.7	3.5	2.6	1.9	1.4	1.1	0.8	0.6	0.5
1	15 (11-29)	11 (8.2-23)	8.5 (6.1-18)	6.4 (4.5-14)	4.8 (3.4-10)	3.6 (2.5-7.9)	2.7 (1.8-5.9)	2.0 (1.4-4.5)	1.5 (1.1-3.4)	1.2 (0.8-2.6)	0.9 (0.6-2.0)
2	23 (14-39)	18 (11-32)	14 (8.2-25)	11 (6.2-20)	8.3 (4.6-15)	6.2 (3.5-12)	4.7 (2.6-8.9)	3.6 (2.0-6.9)	2.8 (1.5-5.3)	2.1 (1.1-4.1)	1.6 (0.9-3.1)
3	33 (19-48)	27 (15-41)	22 (11-34)	17 (8.6-27)	13 (6.5-22)	10 (4.9-17)	7.9 (3.6-13)	6.1 (2.8-10)	4.7 (2.1-7.9)	3.6 (1.6-6.1)	2.7 (1.2-4.7)
4	44 (25-56)	38 (20-49)	31 (16-42)	26 (12-35)	21 (9.4-28)	16 (7.1-23)	13 (5.4-18)	9.9 (4.2-14)	7.7 (3.2-11)	5.9 (2.4-8.5)	4.6 (1.9-6.6)
5	55 (34-62)	49 (28-55)	42 (22-49)	36 (18-41)	30 (14-34)	24 (10-28)	19 (8.0-23)	15 (6.2-18)	12 (4.8-14)	9.5 (3.7-11)	7.4 (2.9-8.9)
6	66	60	54	47	40	34	28	23	18	15	11

Ten year probability of hip 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	7.0	5.5	4.3	3.3	2.6	2.0	1.6	1.3	1.0	0.8	0.6
1	12 (9.1-25)	9.8 (7.1-21)	7.8 (5.6-17)	6.1 (4.4-13)	4.8 (3.4-11)	3.8 (2.6-8.3)	3.0 (2.1-6.6)	2.4 (1.7-5.3)	1.9 (1.3-4.3)	1.5 (1.1-3.4)	1.2 (0.8-2.7)
2	20 (12-34)	16 (9.4-29)	13 (7.4-24)	10 (5.9-19)	8.3 (4.6-15)	6.6 (3.6-12)	5.2 (2.9-9.8)	4.2 (2.3-8.0)	3.4 (1.8-6.5)	2.7 (1.5-5.2)	2.2 (1.2-4.2)
3	29 (16-43)	24 (13-37)	20 (10-31)	16 (8.1-26)	13 (6.4-22)	11 (5.1-18)	8.7 (4.0-14)	7.0 (3.2-12)	5.7 (2.6-9.6)	4.6 (2.1-7.8)	3.7 (1.7-6.3)
4	40 (22-51)	34 (18-45)	29 (14-39)	25 (12-34)	20 (9.2-28)	17 (7.3-23)	14 (5.9-19)	11 (4.8-16)	9.2 (3.8-13)	7.5 (3.1-11)	6.1 (2.5-8.8)
5	51 (30-58)	46 (25-52)	40 (20-46)	35 (17-40)	29 (13-34)	25 (11-29)	21 (8.7-24)	17 (7.1-20)	14 (5.8-17)	12 (4.7-14)	9.6 (3.8-12)
6	63	58	52	46	40	35	30	25	21	18	15

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	5.1	4.2	3.4	2.8	2.3	1.9	1.5	1.3	1.1	0.9	0.8
1	9.0 (6.6-19)	7.5 (5.4-16)	6.2 (4.5-13)	5.1 (3.6-11)	4.2 (3.0-9.3)	3.4 (2.4-7.7)	2.9 (2.0-6.5)	2.4 (1.7-5.5)	2.0 (1.4-4.6)	1.7 (1.2-3.9)	1.4 (1.0-3.2)
2	15 (8.5-26)	12 (7.1-23)	10 (5.8-19)	8.7 (4.8-16)	7.2 (3.9-14)	6.0 (3.2-11)	5.0 (2.7-9.6)	4.2 (2.3-8.1)	3.6 (1.9-6.9)	3.0 (1.6-5.8)	2.5 (1.4-4.9)
3	22 (12-34)	19 (9.7-30)	16 (8.1-26)	14 (6.7-22)	12 (5.5-19)	9.7 (4.5-16)	8.2 (3.8-14)	7.0 (3.2-12)	6.0 (2.7-10)	5.1 (2.3-8.5)	4.3 (1.9-7.2)
4	32 (16-42)	28 (14-38)	24 (11-33)	21 (9.5-29)	18 (7.8-25)	15 (6.5-21)	13 (5.5-18)	11 (4.7-16)	9.5 (3.9-14)	8.1 (3.3-12)	6.9 (2.8-10)
5	43 (23-49)	38 (19-44)	34 (16-39)	30 (14-35)	26 (12-30)	22 (9.6-26)	19 (8.1-23)	17 (6.9-20)	15 (5.9-17)	13 (5.0-15)	11 (4.2-13)
6	54	50	45	40	36	32	28	25	22	19	16