Morocco - 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 Morocco. 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	6.4	4.0	2.7	1.9	1.5	1.2	1.0	0.9	0.9	0.8	0.8
1	10 (8.6-13)	6.2 (5.4-8.0)	4.1 (3.5-5.3)	3.0 (2.3-3.7)	2.3 (1.7-2.8)	1.8 (1.3-2.4)	1.5 (1.0-2.1)	1.4 (0.9-1.9)	1.3 (0.9-1.8)	1.3 (0.8-1.8)	1.2 (0.8-1.7)
2	15 (12-22)	9.6 (7.5-14)	6.3 (4.8-9.0)	4.5 (3.1-6.4)	3.4 (2.2-5.3)	2.7 (1.6-4.5)	2.3 (1.3-3.9)	2.1 (1.1-3.6)	2.0 (1.0-3.4)	1.9 (1.0-3.3)	1.8 (0.9-3.2)
3	23 (16-32)	14 (10-20)	9.5 (6.6-14)	6.7 (4.2-11)	5.1 (2.9-8.6)	4.1 (2.1-7.3)	3.4 (1.7-6.3)	3.0 (1.4-5.8)	2.9 (1.3-5.5)	2.7 (1.2-5.3)	2.6 (1.2-5.1)
4	33 (22-43)	21 (14-27)	14 (9.0-18)	9.9 (6.4-14)	7.4 (4.8-11)	5.9 (3.6-9.4)	4.9 (2.8-8.1)	4.4 (2.4-7.4)	4.1 (2.2-7.1)	3.9 (2.0-6.8)	3.7 (1.9-6.5)
5	45 (36-55)	30 (23-36)	20 (15-23)	14 (11-17)	11 (8.0-14)	8.4 (6.3-11)	6.9 (5.2-9.6)	6.2 (4.5-8.8)	5.8 (4.0-8.3)	5.5 (3.8-8.0)	5.3 (3.6-7.7)
6	60	42	29	20	15	12	9.7	8.6	8.1	7.7	7.4

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

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	7.7	5.1	3.6	2.6	2.1	1.7	1.4	1.3	1.2	1.1	1.1
1	12 (11-14)	7.8 (6.9-9.5)	5.4 (4.6-6.6)	4.0 (3.1-4.9)	3.1 (2.3-3.9)	2.5 (1.8-3.3)	2.1 (1.4-2.8)	1.9 (1.3-2.7)	1.8 (1.2-2.5)	1.7 (1.1-2.4)	1.6 (1.0-2.3)
2	18 (14-24)	12 (9.4-16)	8.2 (6.2-11)	6.0 (4.2-8.5)	4.6 (3.0-7.0)	3.7 (2.2-5.9)	3.1 (1.8-5.1)	2.8 (1.5-4.8)	2.6 (1.4-4.5)	2.5 (1.3-4.3)	2.4 (1.2-4.1)
3	26 (19-34)	17 (13-23)	12 (8.5-17)	8.8 (5.6-14)	6.8 (4.0-11)	5.5 (2.9-9.6)	4.5 (2.3-8.2)	4.1 (2.0-7.7)	3.8 (1.8-7.3)	3.6 (1.7-6.9)	3.4 (1.6-6.5)
4	36 (25-45)	25 (17-30)	17 (12-23)	13 (8.6-18)	9.8 (6.6-15)	7.8 (4.9-12)	6.5 (3.8-11)	5.9 (3.3-9.9)	5.5 (3.0-9.3)	5.1 (2.7-8.8)	4.9 (2.6-8.4)
5	49 (41-57)	34 (28-39)	25 (20-28)	18 (14-22)	14 (11-18)	11 (8.6-15)	9.1 (7.0-13)	8.3 (6.0-12)	7.7 (5.4-11)	7.2 (4.9-10)	6.8 (4.6-9.8)
6	63	46	34	25	19	15	13	11	11	10	9.4

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	9.7	6.6	4.7	3.6	2.8	2.2	1.9	1.7	1.6	1.5	1.4
1	14 (13-17)	9.9 (8.8-12)	7.1 (5.9-8.3)	5.3 (4.2-6.3)	4.1 (3.1-5.2)	3.3 (2.4-4.3)	2.8 (1.9-3.8)	2.6 (1.7-3.5)	2.3 (1.5-3.3)	2.2 (1.4-3.1)	2.0 (1.3-2.9)
2	21 (17-27)	15 (12-19)	10 (8.0-14)	7.8 (5.5-11)	6.1 (4.0-9.0)	4.9 (3.0-7.6)	4.1 (2.4-6.6)	3.7 (2.1-6.1)	3.4 (1.9-5.7)	3.2 (1.7-5.4)	3.0 (1.6-5.0)
3	30 (23-36)	21 (16-28)	15 (11-22)	11 (7.4-17)	8.8 (5.3-14)	7.0 (3.9-12)	6.0 (3.1-11)	5.4 (2.7-9.8)	4.9 (2.4-9.1)	4.6 (2.2-8.5)	4.3 (2.0-8.0)
4	40 (30-48)	29 (21-35)	21 (15-28)	16 (11-22)	12 (8.7-18)	9.9 (6.5-15)	8.4 (5.2-14)	7.6 (4.4-12)	7.0 (3.9-12)	6.5 (3.5-11)	6.0 (3.2-10)
5	53 (46-59)	39 (34-43)	29 (24-34)	22 (18-27)	17 (14-22)	14 (11-18)	12 (9.0-16)	11 (7.7-15)	9.7 (6.8-14)	9.0 (6.2-13)	8.4 (5.7-12)
6	66	51	39	30	24	19	16	14	13	12	11

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

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	11	7.9	5.7	4.3	3.3	2.6	2.3	2.0	1.8	1.7	1.5
1	16 (15-18)	12 (10-13)	8.4 (7.0-9.5)	6.3 (5.0-7.5)	4.9 (3.7-6.1)	3.9 (2.8-5.0)	3.3 (2.3-4.5)	3.0 (2.0-4.1)	2.7 (1.8-3.8)	2.5 (1.6-3.5)	2.3 (1.5-3.2)
2	23 (19-29)	17 (14-21)	12 (9.4-15)	9.1 (6.6-12)	7.0 (4.8-10)	5.6 (3.6-8.4)	4.8 (2.9-7.6)	4.3 (2.5-6.9)	3.9 (2.2-6.4)	3.6 (1.9-5.9)	3.3 (1.7-5.4)
3	32 (25-38)	23 (18-30)	17 (13-24)	13 (8.9-19)	10 (6.4-16)	8.0 (4.7-13)	6.9 (3.8-12)	6.1 (3.2-11)	5.5 (2.8-10)	5.1 (2.5-9.2)	4.6 (2.3-8.6)
4	42 (33-48)	32 (24-38)	24 (18-30)	18 (13-25)	14 (10-20)	11 (7.7-17)	9.6 (6.2-15)	8.6 (5.2-14)	7.7 (4.5-13)	7.1 (4.0-12)	6.5 (3.6-11)
5	54 (49-58)	42 (37-46)	32 (28-37)	25 (21-30)	19 (16-24)	15 (13-20)	13 (10-18)	12 (8.7-16)	11 (7.6-15)	9.7 (6.7-14)	8.9 (6.1-13)
6	65	53	41	32	26	21	18	16	14	13	12

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	8.4	6.2	4.7	3.6	2.9	2.5	2.2	2.0	1.8	1.6
1	17 (15-21)	12 (10-15)	9.1 (7.4-11)	6.8 (5.4-8.1)	5.2 (4.0-6.1)	4.1 (3.1-4.9)	3.5 (2.6-4.1)	3.1 (2.2-3.6)	2.7 (1.9-3.2)	2.4 (1.7-2.9)	2.2 (1.5-2.6)
2	25 (20-32)	18 (14-23)	13 (10-17)	9.8 (7.1-13)	7.4 (5.2-9.8)	5.8 (4.0-7.8)	4.9 (3.2-6.7)	4.2 (2.7-5.8)	3.7 (2.3-5.1)	3.3 (2.0-4.6)	3.0 (1.8-4.1)
3	35 (27-44)	26 (19-34)	19 (13-26)	14 (9.6-20)	10 (6.9-15)	8.2 (5.3-12)	6.8 (4.3-10)	5.8 (3.6-9.1)	5.1 (3.0-8.0)	4.5 (2.7-7.1)	4.0 (2.3-6.5)
4	47 (38-55)	36 (28-43)	27 (20-33)	20 (15-26)	15 (11-20)	11 (8.3-16)	9.4 (6.7-13)	8.0 (5.6-12)	6.9 (4.8-10)	6.0 (4.1-9.2)	5.4 (3.7-8.3)
5	60 (52-65)	48 (41-53)	37 (31-42)	28 (23-32)	21 (17-25)	16 (13-20)	13 (11-17)	11 (8.9-14)	9.3 (7.7-12)	8.1 (6.7-11)	7.1 (5.9-9.8)
6	72	61	49	38	29	22	18	15	12	11	9.4

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

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	8.7	6.5	5.0	3.8	3.2	2.7	2.4	2.1	1.8	1.6
1	18 (14-30)	14 (10-22)	10 (7.5-16)	7.5 (5.5-11)	5.6 (4.1-7.9)	4.6 (3.3-6.0)	3.8 (2.7-4.7)	3.2 (2.3-3.8)	2.8 (2.0-3.3)	2.4 (1.7-2.9)	2.1 (1.5-2.6)
2	28 (19-42)	21 (14-32)	15 (10-24)	11 (7.4-17)	8.4 (5.4-13)	6.6 (4.3-9.5)	5.4 (3.5-7.4)	4.5 (2.9-5.9)	3.8 (2.5-5.0)	3.2 (2.1-4.4)	2.8 (1.8-4.0)
3	39 (25-53)	30 (19-42)	23 (14-32)	17 (9.9-24)	12 (7.3-18)	9.6 (5.7-14)	7.7 (4.6-11)	6.2 (3.8-8.9)	5.1 (3.2-7.4)	4.3 (2.8-6.2)	3.7 (2.4-5.3)
4	52 (34-63)	42 (26-52)	33 (19-42)	25 (14-32)	18 (11-24)	14 (8.6-18)	11 (7.1-15)	8.7 (5.8-12)	7.1 (4.9-9.6)	5.9 (4.2-8.1)	4.9 (3.6-6.9)
5	64 (45-71)	55 (36-62)	45 (28-51)	35 (21-40)	26 (16-31)	20 (13-24)	16 (11-19)	12 (8.9-15)	9.9 (7.5-12)	8.0 (6.5-10)	6.6 (5.7-8.5)
6	75	67	58	47	37	29	23	18	14	11	8.9

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	11	8.7	6.6	5.1	4.0	3.3	2.8	2.4	2.1	1.8	1.6
1	17 (13-29)	13 (9.8-22)	10 (7.4-16)	7.6 (5.5-12)	5.9 (4.3-8.8)	4.8 (3.5-6.8)	4.0 (2.8-5.3)	3.3 (2.4-4.2)	2.8 (2.0-3.4)	2.4 (1.7-2.8)	2.1 (1.5-2.4)
2	25 (17-39)	20 (13-31)	15 (9.9-23)	11 (7.4-18)	8.7 (5.7-13)	7.0 (4.5-10)	5.6 (3.7-8.2)	4.6 (3.0-6.5)	3.9 (2.5-5.3)	3.2 (2.1-4.3)	2.8 (1.8-3.6)
3	35 (23-49)	28 (18-40)	22 (13-31)	17 (10-24)	13 (7.6-18)	10 (6.1-14)	8.1 (4.9-11)	6.5 (4.0-9.2)	5.3 (3.3-7.5)	4.4 (2.8-6.2)	3.7 (2.4-5.2)
4	47 (30-57)	38 (23-48)	31 (18-39)	24 (14-31)	18 (11-24)	15 (8.6-19)	12 (7.0-15)	9.3 (5.8-12)	7.5 (4.9-9.9)	6.1 (4.1-8.2)	5.0 (3.5-6.8)
5	58 (39-64)	50 (31-56)	41 (25-47)	33 (19-38)	26 (15-31)	21 (12-25)	17 (10-20)	13 (8.5-16)	10 (7.2-13)	8.4 (6.1-11)	6.8 (5.2-8.7)
6	68	61	53	44	36	29	23	18	15	12	9.4

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

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	8.1	6.3	4.8	4.0	3.3	2.8	2.3	2.0	1.7	1.4
1	16 (12-27)	12 (8.9-21)	9.5 (6.8-16)	7.3 (5.2-12)	5.9 (4.2-9.5)	4.9 (3.4-7.5)	4.0 (2.8-6.0)	3.3 (2.3-4.8)	2.8 (1.9-3.8)	2.3 (1.6-3.1)	2.0 (1.4-2.5)
2	23 (15-35)	18 (12-28)	14 (9.2-22)	11 (7.0-17)	8.8 (5.7-14)	7.2 (4.6-11)	5.8 (3.7-8.9)	4.8 (3.1-7.1)	3.9 (2.5-5.7)	3.3 (2.1-4.6)	2.7 (1.7-3.8)
3	32 (20-44)	26 (16-37)	21 (12-30)	16 (9.6-23)	13 (7.7-19)	11 (6.2-15)	8.5 (5.0-12)	6.9 (4.1-9.8)	5.6 (3.4-8.0)	4.6 (2.8-6.5)	3.8 (2.3-5.4)
4	42 (26-52)	35 (21-45)	29 (17-37)	23 (13-30)	19 (11-25)	15 (8.6-20)	12 (7.1-16)	10 (5.8-13)	8.1 (4.8-11)	6.6 (4.0-8.7)	5.3 (3.4-7.2)
5	52 (34-59)	45 (28-52)	38 (22-45)	32 (18-37)	26 (15-31)	22 (12-26)	18 (10-21)	14 (8.3-17)	12 (6.9-14)	9.3 (5.8-12)	7.5 (4.9-9.5)
6	63	56	49	42	35	30	25	20	16	13	11

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	8.9	7.0	5.5	4.4	3.6	3.0	2.5	2.1	1.7	1.5	1.2
1	14 (9.7-24)	11 (7.7-19)	8.6 (6.0-15)	6.8 (4.8-12)	5.7 (4.0-9.9)	4.7 (3.3-8.1)	3.9 (2.7-6.6)	3.2 (2.2-5.3)	2.6 (1.8-4.3)	2.2 (1.5-3.5)	1.8 (1.3-2.8)
2	20 (13-31)	16 (10-26)	13 (8.2-21)	10 (6.5-17)	8.6 (5.4-14)	7.1 (4.4-12)	5.9 (3.7-9.5)	4.9 (3.0-7.8)	4.0 (2.5-6.3)	3.3 (2.1-5.2)	2.7 (1.7-4.2)
3	28 (17-39)	23 (14-33)	19 (11-28)	15 (8.9-23)	13 (7.4-19)	11 (6.1-16)	8.9 (5.1-13)	7.3 (4.2-11)	6.0 (3.4-8.9)	4.9 (2.8-7.3)	4.0 (2.3-5.9)
4	37 (22-47)	32 (18-41)	27 (15-35)	22 (12-29)	19 (10-25)	16 (8.4-21)	13 (6.9-18)	11 (5.8-15)	8.9 (4.8-12)	7.3 (3.9-9.9)	6.0 (3.3-8.1)
5	47 (29-54)	42 (24-48)	36 (20-42)	30 (16-36)	26 (14-31)	22 (12-27)	19 (9.7-23)	16 (8.1-19)	13 (6.7-16)	11 (5.6-13)	8.8 (4.7-11)
6	58	52	46	40	35	31	26	22	19	15	13