The US (Black) - 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 the US (Black). 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	8.8	5.6	3.8	2.8	2.2	1.8	1.5	1.3	1.2	1.2	1.1
1	13 (12-17)	8.6 (7.6-11)	5.9 (4.8-7.5)	4.3 (3.3-5.4)	3.3 (2.4-4.2)	2.7 (1.9-3.5)	2.3 (1.5-3.1)	2.0 (1.3-2.7)	1.8 (1.2-2.5)	1.7 (1.1-2.4)	1.7 (1.0-2.4)
2	20 (15-28)	13 (10-18)	8.8 (6.6-12)	6.4 (4.4-9.3)	4.9 (3.1-7.7)	4.0 (2.3-6.6)	3.4 (1.9-5.7)	2.9 (1.6-5.1)	2.7 (1.4-4.7)	2.5 (1.3-4.5)	2.5 (1.2-4.4)
3	28 (20-37)	19 (13-25)	13 (9.0-18)	9.3 (5.9-15)	7.2 (4.1-12)	5.8 (3.1-10)	4.9 (2.4-9.0)	4.2 (2.0-8.0)	3.8 (1.8-7.4)	3.7 (1.7-7.1)	3.5 (1.6-6.9)
4	39 (27-48)	27 (18-32)	18 (12-24)	13 (8.9-19)	10 (6.7-15)	8.3 (5.0-13)	7.0 (3.9-12)	6.0 (3.2-10)	5.5 (2.8-9.4)	5.2 (2.6-9.1)	5.0 (2.5-8.8)
5	51 (41-59)	36 (28-41)	26 (19-30)	19 (14-23)	14 (11-19)	12 (8.6-16)	9.7 (7.2-14)	8.4 (6.0-12)	7.6 (5.3-11)	7.3 (4.9-11)	7.0 (4.7-10)
6	63	48	35	26	20	16	13	11	10	9.9	9.6

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

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	9.8	6.7	4.8	3.7	2.9	2.4	2.0	1.8	1.6	1.5	1.5
1	15 (13-18)	10 (8.5-12)	7.2 (5.7-8.9)	5.4 (4.1-6.7)	4.3 (3.1-5.5)	3.6 (2.4-4.7)	3.0 (2.0-4.1)	2.6 (1.7-3.6)	2.4 (1.5-3.4)	2.3 (1.4-3.2)	2.2 (1.4-3.1)
2	21 (17-28)	15 (11-19)	11 (7.7-14)	8.0 (5.4-12)	6.3 (3.9-9.9)	5.2 (3.0-8.5)	4.4 (2.4-7.4)	3.8 (2.0-6.5)	3.5 (1.8-6.1)	3.3 (1.7-5.8)	3.2 (1.6-5.6)
3	29 (22-37)	21 (15-28)	15 (10-22)	11 (7.2-18)	9.0 (5.2-15)	7.4 (4.0-13)	6.3 (3.2-11)	5.4 (2.6-10)	5.0 (2.4-9.4)	4.7 (2.2-8.9)	4.5 (2.1-8.6)
4	39 (29-46)	28 (20-35)	21 (15-28)	16 (11-23)	13 (8.3-19)	10 (6.3-16)	8.8 (5.0-14)	7.6 (4.1-13)	7.0 (3.7-12)	6.6 (3.4-11)	6.3 (3.2-11)
5	50 (42-55)	38 (30-43)	28 (22-34)	22 (17-27)	17 (13-23)	14 (11-20)	12 (9.0-17)	10 (7.4-15)	9.6 (6.6-14)	9.1 (6.1-13)	8.7 (5.8-13)
6	61	48	37	29	23	19	16	14	13	12	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	10	7.2	5.4	4.2	3.4	2.8	2.3	2.0	1.9	1.7	1.6
1	14 (13-17)	10 (8.7-12)	7.9 (6.2-9.4)	6.1 (4.6-7.5)	4.9 (3.5-6.3)	4.1 (2.8-5.4)	3.4 (2.3-4.7)	2.9 (1.9-4.1)	2.7 (1.7-3.9)	2.6 (1.6-3.6)	2.4 (1.5-3.4)
2	20 (17-26)	15 (12-19)	11 (8.3-16)	8.8 (6.0-13)	7.1 (4.5-11)	5.8 (3.5-9.3)	4.9 (2.8-8.1)	4.2 (2.3-7.1)	3.9 (2.1-6.7)	3.7 (1.9-6.3)	3.5 (1.8-6.0)
3	28 (22-35)	21 (16-28)	16 (11-23)	12 (8.0-19)	10 (5.9-16)	8.2 (4.6-14)	7.0 (3.7-12)	6.0 (3.0-11)	5.6 (2.7-10)	5.2 (2.5-9.6)	4.9 (2.3-9.2)
4	37 (28-43)	28 (21-35)	22 (16-29)	17 (12-24)	14 (9.2-21)	11 (7.1-18)	9.6 (5.7-16)	8.3 (4.7-14)	7.7 (4.2-13)	7.2 (3.8-12)	6.8 (3.6-12)
5	46 (40-52)	37 (30-43)	29 (23-35)	23 (18-29)	19 (15-25)	15 (12-21)	13 (9.8-18)	11 (8.1-16)	10 (7.3-15)	9.8 (6.7-14)	9.3 (6.2-14)
6	56	46	37	30	24	20	17	15	14	13	12

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

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	9.7	7.2	5.5	4.3	3.5	2.8	2.4	2.1	1.9	1.7	1.6
1	14 (12-16)	10 (8.5-12)	7.9 (6.2-9.2)	6.2 (4.7-7.6)	5.0 (3.6-6.4)	4.1 (2.8-5.4)	3.4 (2.3-4.7)	3.0 (1.9-4.1)	2.7 (1.7-3.8)	2.5 (1.6-3.6)	2.3 (1.5-3.4)
2	19 (16-23)	14 (11-18)	11 (8.3-15)	8.8 (6.1-13)	7.1 (4.7-11)	5.8 (3.6-9.1)	4.9 (2.9-7.8)	4.2 (2.4-6.9)	3.9 (2.1-6.5)	3.6 (1.9-6.0)	3.3 (1.8-5.7)
3	26 (20-32)	20 (15-26)	15 (11-22)	12 (8.2-18)	9.8 (6.2-16)	8.1 (4.8-13)	6.8 (3.8-12)	5.9 (3.1-10)	5.4 (2.8-9.6)	5.0 (2.5-9.1)	4.7 (2.3-8.5)
4	33 (27-40)	26 (20-33)	21 (16-28)	16 (12-23)	13 (9.4-20)	11 (7.3-17)	9.3 (5.7-15)	8.1 (4.7-13)	7.4 (4.2-12)	6.8 (3.8-12)	6.4 (3.4-11)
5	41 (36-47)	33 (29-40)	27 (23-33)	22 (18-28)	18 (15-24)	15 (12-20)	12 (9.5-17)	11 (7.9-16)	9.9 (7.0-14)	9.2 (6.3-14)	8.6 (5.8-13)
6	50	41	34	28	23	19	16	14	13	12	11

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	9.7	7.4	5.8	4.6	3.7	3.0	2.5	2.1	1.9	1.7	1.6
1	14 (11-17)	11 (8.5-13)	8.2 (6.4-10)	6.5 (4.9-7.9)	5.1 (3.8-6.2)	4.1 (3.0-5.0)	3.4 (2.4-4.1)	2.9 (2.0-3.5)	2.6 (1.8-3.1)	2.4 (1.6-2.9)	2.2 (1.5-2.6)
2	20 (15-26)	15 (11-20)	12 (8.6-16)	9.1 (6.5-12)	7.2 (5.0-9.8)	5.8 (3.9-8.0)	4.7 (3.1-6.5)	4.0 (2.6-5.6)	3.6 (2.2-5.0)	3.2 (2.0-4.5)	2.9 (1.8-4.1)
3	27 (21-35)	21 (15-28)	16 (12-22)	13 (8.7-18)	10 (6.7-14)	8.0 (5.2-12)	6.4 (4.1-9.7)	5.5 (3.4-8.4)	4.8 (2.9-7.5)	4.3 (2.6-6.8)	3.9 (2.3-6.2)
4	36 (28-43)	29 (22-35)	22 (17-29)	18 (13-23)	14 (9.8-19)	11 (7.6-15)	8.8 (6.0-13)	7.4 (5.0-11)	6.5 (4.3-9.7)	5.7 (3.8-8.8)	5.2 (3.4-8.0)
5	46 (38-52)	37 (31-44)	30 (24-36)	24 (19-29)	19 (15-24)	15 (12-19)	12 (9.5-16)	9.9 (8.0-13)	8.6 (6.9-12)	7.6 (6.1-11)	6.8 (5.5-9.5)
6	55	47	39	31	25	20	16	13	11	10	8.8

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

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	9.9	7.7	6.1	4.8	3.9	3.1	2.6	2.2	2.0	1.8	1.6
1	15 (11-26)	12 (8.7-20)	9.3 (6.7-15)	7.3 (5.2-12)	5.8 (4.1-8.7)	4.6 (3.2-6.6)	3.7 (2.6-5.1)	3.1 (2.2-4.1)	2.7 (1.9-3.4)	2.4 (1.7-2.8)	2.1 (1.5-2.5)
2	23 (15-34)	18 (12-28)	14 (9.0-22)	11 (7.0-17)	8.6 (5.5-13)	6.7 (4.3-9.9)	5.3 (3.4-7.7)	4.4 (2.8-6.2)	3.8 (2.4-5.1)	3.2 (2.1-4.3)	2.8 (1.8-3.7)
3	32 (20-44)	26 (16-36)	21 (12-29)	16 (9.5-23)	13 (7.3-18)	9.8 (5.7-14)	7.7 (4.5-11)	6.3 (3.7-9.1)	5.3 (3.2-7.6)	4.5 (2.7-6.4)	3.8 (2.4-5.5)
4	42 (27-52)	35 (21-45)	29 (17-37)	23 (13-30)	18 (10-24)	14 (8.2-19)	11 (6.5-15)	9.0 (5.4-12)	7.4 (4.6-10)	6.2 (4.0-8.5)	5.2 (3.5-7.3)
5	53 (35-60)	46 (29-53)	39 (23-46)	32 (19-38)	26 (15-31)	20 (12-25)	16 (9.6-20)	13 (8.1-16)	10 (7.0-13)	8.6 (6.1-11)	7.2 (5.3-9.3)
6	63	57	49	42	35	28	22	18	15	12	9.9

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	10	8.4	6.8	5.5	4.5	3.7	3.0	2.6	2.3	2.1	1.8
1	16 (11-26)	13 (9.2-21)	10 (7.3-17)	8.2 (5.8-13)	6.6 (4.7-10)	5.4 (3.8-8.2)	4.4 (3.1-6.5)	3.8 (2.6-5.3)	3.2 (2.3-4.4)	2.8 (2.0-3.7)	2.5 (1.7-3.1)
2	23 (15-35)	19 (12-29)	15 (9.8-23)	12 (7.8-19)	9.8 (6.3-15)	7.8 (5.0-12)	6.3 (4.1-9.6)	5.4 (3.4-7.9)	4.6 (2.9-6.6)	3.9 (2.5-5.5)	3.4 (2.2-4.6)
3	31 (20-43)	26 (16-37)	22 (13-31)	18 (11-25)	14 (8.5-20)	11 (6.8-16)	9.2 (5.5-13)	7.7 (4.6-11)	6.5 (3.9-9.1)	5.5 (3.3-7.7)	4.7 (2.9-6.6)
4	41 (26-51)	35 (22-45)	30 (18-38)	25 (14-32)	20 (12-26)	16 (9.4-21)	13 (7.7-17)	11 (6.5-14)	9.2 (5.5-12)	7.7 (4.8-10)	6.5 (4.1-8.7)
5	51 (33-58)	45 (28-52)	39 (23-46)	33 (19-39)	28 (16-33)	23 (13-27)	19 (11-23)	16 (9.1-19)	13 (7.9-16)	11 (6.8-14)	9.0 (6.0-11)
6	61	55	49	43	37	31	26	22	18	15	13

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

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	9.8	8.1	6.7	5.5	4.5	3.7	3.2	2.8	2.4	2.1	1.9
1	15 (11-24)	12 (8.7-20)	10 (7.1-16)	8.2 (5.8-13)	6.7 (4.8-11)	5.5 (3.9-8.7)	4.7 (3.3-7.1)	4.0 (2.8-6.0)	3.5 (2.4-5.0)	3.0 (2.1-4.2)	2.6 (1.8-3.6)
2	21 (14-32)	18 (12-27)	15 (9.6-23)	12 (7.8-19)	10 (6.4-16)	8.2 (5.2-13)	6.8 (4.4-10)	5.8 (3.7-8.9)	5.0 (3.2-7.5)	4.3 (2.8-6.3)	3.7 (2.4-5.4)
3	30 (19-41)	25 (16-36)	21 (13-30)	18 (11-25)	15 (8.7-21)	12 (7.1-17)	10 (5.9-14)	8.5 (5.0-12)	7.3 (4.3-10)	6.2 (3.7-8.8)	5.3 (3.2-7.5)
4	39 (25-50)	34 (21-44)	29 (17-38)	25 (14-32)	21 (12-27)	17 (9.8-23)	14 (8.2-19)	12 (7.1-16)	10 (6.1-14)	8.9 (5.3-12)	7.6 (4.6-10)
5	50 (32-57)	45 (27-51)	39 (23-46)	34 (20-40)	29 (16-34)	24 (14-29)	21 (12-25)	18 (10-21)	15 (8.6-18)	13 (7.5-16)	11 (6.6-13)
6	60	55	50	44	39	33	29	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	6.9	5.8	4.9	4.1	3.4	2.9	2.5	2.2	2.0	1.7	1.5
1	10 (7.4-17)	8.8 (6.2-15)	7.4 (5.2-12)	6.2 (4.3-10)	5.2 (3.6-8.5)	4.3 (3.0-7.0)	3.7 (2.6-6.0)	3.3 (2.3-5.1)	2.9 (2.0-4.4)	2.5 (1.7-3.8)	2.2 (1.5-3.3)
2	15 (9.9-24)	13 (8.3-20)	11 (7.0-17)	9.2 (5.8-15)	7.7 (4.9-12)	6.5 (4.1-10)	5.6 (3.5-8.8)	4.9 (3.1-7.6)	4.2 (2.7-6.5)	3.7 (2.3-5.6)	3.2 (2.0-4.9)
3	22 (13-31)	19 (11-27)	16 (9.5-23)	14 (8.0-20)	11 (6.7-17)	9.6 (5.6-14)	8.3 (4.8-12)	7.2 (4.2-11)	6.2 (3.6-9.1)	5.4 (3.1-7.9)	4.7 (2.7-6.8)
4	30 (18-39)	27 (15-35)	23 (13-30)	20 (11-26)	17 (9.1-22)	14 (7.7-19)	12 (6.6-16)	11 (5.8-14)	9.2 (5.1-12)	8.0 (4.4-11)	6.9 (3.9-9.2)
5	40 (24-47)	36 (20-42)	32 (17-37)	27 (15-33)	24 (13-28)	20 (11-24)	18 (9.3-21)	15 (8.2-19)	13 (7.2-16)	12 (6.3-14)	10 (5.5-12)
6	51	47	42	37	33	28	25	22	19	17	15