

The US (Caucasian) - 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 the US (Caucasian). 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	17	12	8.4	6.5	5.3	4.5	3.9	3.6	3.4	3.3	3.2
1	25 (22-31)	17 (15-22)	13 (10-16)	9.8 (7.3-12)	8.0 (5.6-10)	6.7 (4.6-9.0)	5.8 (3.9-7.9)	5.4 (3.5-7.4)	5.1 (3.3-7.1)	4.9 (3.2-6.8)	4.7 (3.0-6.6)
2	36 (30-49)	26 (20-35)	19 (13-26)	14 (9.4-22)	12 (7.0-19)	9.9 (5.6-16)	8.6 (4.6-14)	7.9 (4.2-13)	7.5 (3.9-13)	7.2 (3.7-12)	6.9 (3.6-12)
3	50 (38-62)	36 (27-49)	27 (18-40)	21 (12-33)	17 (9.2-29)	14 (7.3-25)	12 (6.0-22)	11 (5.4-21)	11 (5.0-20)	10 (4.8-20)	10 (4.6-19)
4	65 (49-75)	49 (35-59)	37 (26-49)	29 (20-41)	24 (15-36)	20 (12-31)	17 (9.8-28)	16 (8.7-26)	15 (8.1-25)	15 (7.7-24)	14 (7.4-24)
5	79 (69-85)	63 (53-68)	50 (40-57)	39 (31-48)	32 (25-41)	27 (21-36)	24 (18-32)	22 (16-30)	21 (15-29)	20 (14-28)	19 (13-27)
6	89	77	63	52	43	37	32	30	28	27	26

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

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	21	15	12	9.3	7.7	6.6	5.7	5.3	5.0	4.7	4.5
1	30 (27-36)	22 (19-27)	17 (13-21)	14 (10-17)	11 (8.1-15)	9.7 (6.6-13)	8.4 (5.6-11)	7.8 (5.1-11)	7.4 (4.8-10)	7.0 (4.5-9.8)	6.7 (4.3-9.4)
2	42 (35-53)	32 (24-41)	25 (17-34)	20 (13-29)	16 (9.9-26)	14 (8.0-22)	12 (6.7-20)	11 (6.1-19)	11 (5.7-18)	10 (5.4-17)	9.7 (5.1-16)
3	56 (45-68)	43 (32-58)	34 (23-50)	28 (17-43)	23 (13-38)	20 (10-34)	17 (8.7-30)	16 (7.9-29)	15 (7.3-27)	14 (6.9-26)	14 (6.5-25)
4	70 (55-78)	56 (43-68)	46 (34-60)	38 (27-52)	32 (21-47)	27 (17-42)	24 (14-37)	22 (13-35)	21 (12-34)	20 (11-33)	19 (10-31)
5	82 (75-86)	70 (61-77)	59 (50-67)	49 (41-60)	42 (35-53)	36 (29-47)	32 (24-42)	30 (22-40)	28 (20-39)	27 (19-37)	26 (18-36)
6	90	82	72	62	54	47	42	39	37	36	34

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	24	18	14	12	9.5	8.0	7.0	6.5	6.0	5.6	5.3
1	35 (30-39)	26 (22-30)	21 (16-25)	17 (12-21)	14 (9.9-18)	12 (8.1-16)	10 (6.9-14)	9.5 (6.3-13)	8.8 (5.8-12)	8.3 (5.4-12)	7.8 (5.1-11)
2	47 (39-57)	37 (28-47)	29 (21-40)	24 (16-34)	20 (12-30)	17 (9.8-26)	15 (8.3-23)	14 (7.5-22)	13 (6.9-21)	12 (6.4-20)	11 (6.0-18)
3	60 (50-73)	49 (37-64)	39 (27-56)	32 (20-49)	27 (16-44)	23 (13-39)	20 (11-35)	19 (9.7-33)	18 (8.9-31)	17 (8.2-30)	16 (7.7-28)
4	73 (61-82)	62 (49-74)	51 (40-66)	43 (32-59)	37 (25-52)	31 (20-47)	28 (17-43)	26 (15-41)	24 (14-38)	23 (13-37)	22 (12-35)
5	84 (79-88)	74 (67-81)	64 (57-73)	55 (48-66)	47 (40-59)	41 (33-53)	37 (28-48)	34 (25-46)	32 (23-44)	31 (22-42)	29 (20-40)
6	91	85	76	68	60	53	48	45	42	40	38

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

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	27	21	16	13	11	8.8	7.8	7.1	6.5	6.0	5.6
1	38 (33-42)	29 (25-33)	23 (18-28)	19 (14-23)	15 (11-20)	13 (8.9-17)	11 (7.8-15)	10 (7.0-14)	9.5 (6.3-13)	8.7 (5.8-12)	8.1 (5.3-11)
2	50 (42-59)	40 (32-50)	32 (24-42)	26 (18-36)	21 (14-31)	18 (11-27)	16 (9.4-25)	15 (8.3-23)	13 (7.5-22)	12 (6.8-20)	12 (6.3-19)
3	63 (53-75)	52 (40-67)	43 (30-59)	35 (23-52)	29 (18-45)	25 (14-40)	22 (12-37)	20 (11-34)	19 (9.6-32)	17 (8.8-30)	16 (8.0-28)
4	75 (65-83)	64 (53-76)	54 (44-68)	46 (36-61)	39 (28-54)	33 (22-48)	30 (19-45)	27 (17-42)	25 (15-40)	24 (14-37)	22 (13-35)
5	84 (80-88)	76 (70-82)	66 (60-75)	58 (51-68)	50 (42-61)	43 (35-54)	39 (30-51)	36 (27-48)	33 (24-45)	31 (22-42)	29 (21-40)
6	90	84	77	69	61	54	50	46	43	41	38

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	31	24	19	15	12	9.8	8.6	7.7	6.9	6.3	5.7
1	42 (37-49)	33 (28-38)	26 (21-30)	20 (16-24)	16 (12-19)	13 (10-16)	12 (8.7-14)	11 (7.6-12)	9.4 (6.7-11)	8.5 (6.0-10)	7.7 (5.4-9.2)
2	55 (47-66)	44 (36-55)	35 (27-44)	28 (20-36)	22 (16-29)	18 (13-24)	16 (11-21)	14 (9.2-19)	13 (8.1-17)	12 (7.2-16)	10 (6.4-14)
3	69 (57-79)	57 (45-70)	47 (35-60)	37 (26-51)	30 (20-42)	25 (16-36)	22 (14-32)	19 (12-29)	17 (10-26)	15 (9.2-24)	14 (8.3-22)
4	80 (72-86)	70 (60-79)	59 (49-70)	49 (39-60)	40 (31-51)	33 (25-44)	29 (21-40)	25 (18-36)	22 (16-32)	20 (14-30)	18 (13-27)
5	87 (83-90)	81 (75-85)	72 (65-78)	61 (54-69)	51 (45-59)	43 (37-51)	37 (32-46)	33 (28-41)	29 (25-38)	26 (22-34)	24 (20-31)
6	90	87	82	74	64	54	48	42	37	34	30

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

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	35	27	21	17	13	11	9.5	8.3	7.3	6.5	5.8
1	48 (41-66)	38 (31-53)	30 (24-42)	24 (18-32)	18 (14-24)	15 (12-19)	13 (9.8-15)	11 (8.3-13)	9.8 (7.2-11)	8.6 (6.3-10)	7.6 (5.6-9.1)
2	62 (50-78)	52 (40-69)	42 (31-58)	33 (24-46)	26 (18-36)	21 (15-29)	18 (12-23)	15 (10-20)	13 (8.8-18)	11 (7.6-16)	9.9 (6.7-14)
3	75 (61-85)	66 (50-79)	56 (39-70)	45 (30-59)	36 (23-48)	29 (19-40)	24 (16-33)	20 (13-28)	17 (11-24)	15 (9.8-21)	13 (8.6-18)
4	83 (72-88)	77 (62-85)	69 (51-78)	59 (42-69)	48 (33-58)	40 (28-49)	33 (23-42)	27 (20-35)	23 (17-30)	20 (15-26)	17 (13-23)
5	88 (81-90)	85 (74-88)	79 (66-84)	72 (56-78)	62 (47-68)	53 (40-59)	44 (34-50)	37 (30-43)	31 (26-37)	26 (23-31)	22 (19-27)
6	90	89	86	82	75	66	57	48	40	34	29

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	38	31	24	19	16	13	11	9.9	8.6	7.5	6.6
1	51 (43-68)	42 (34-57)	34 (27-47)	27 (21-37)	22 (17-29)	18 (14-23)	16 (12-19)	13 (9.9-16)	11 (8.5-13)	9.9 (7.3-12)	8.6 (6.3-10)
2	63 (52-77)	54 (43-70)	46 (34-61)	37 (27-51)	30 (21-42)	25 (18-35)	21 (15-29)	18 (12-24)	15 (10-20)	13 (8.9-17)	11 (7.7-15)
3	73 (62-83)	66 (52-78)	58 (43-71)	49 (34-62)	41 (28-52)	34 (23-45)	29 (19-38)	24 (16-32)	20 (14-27)	17 (12-23)	15 (9.9-20)
4	81 (71-86)	76 (62-83)	69 (53-78)	61 (44-71)	53 (37-62)	45 (31-54)	38 (27-47)	32 (23-40)	27 (19-35)	23 (17-30)	19 (15-26)
5	85 (78-88)	82 (72-86)	78 (65-83)	72 (57-78)	65 (49-71)	57 (43-64)	50 (37-56)	42 (33-49)	36 (28-42)	30 (25-36)	25 (22-31)
6	88	86	84	80	75	69	62	54	46	39	33

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

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	36	29	24	19	16	14	12	9.9	8.5	7.3	6.3
1	48 (39-63)	40 (32-54)	33 (26-45)	26 (20-36)	22 (17-30)	19 (14-24)	16 (12-20)	13 (10-17)	11 (8.4-14)	9.8 (7.2-11)	8.4 (6.1-9.6)
2	60 (48-74)	52 (40-67)	44 (33-58)	36 (26-50)	30 (22-42)	26 (18-36)	22 (15-30)	18 (13-25)	15 (11-21)	13 (8.9-17)	11 (7.5-14)
3	70 (58-80)	63 (49-75)	55 (41-68)	47 (33-60)	41 (28-52)	35 (23-45)	29 (19-39)	25 (16-33)	21 (14-28)	18 (12-24)	15 (9.8-20)
4	78 (67-84)	73 (59-80)	67 (51-75)	59 (43-69)	52 (37-62)	46 (31-55)	39 (27-48)	33 (23-42)	28 (19-36)	24 (17-31)	20 (14-26)
5	83 (74-86)	80 (69-84)	76 (62-81)	70 (55-76)	64 (48-70)	57 (42-64)	51 (37-57)	44 (32-50)	37 (28-44)	32 (24-38)	27 (21-32)
6	85	84	82	78	74	69	62	56	48	42	35

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	27	22	18	15	13	11	9.1	7.7	6.6	5.6	4.8
1	37 (29-51)	31 (24-43)	25 (19-36)	21 (15-29)	18 (13-25)	15 (11-20)	13 (9.2-17)	11 (7.8-14)	9.0 (6.5-12)	7.7 (5.5-9.6)	6.5 (4.7-8.0)
2	47 (36-62)	41 (30-55)	34 (24-47)	28 (20-40)	24 (17-35)	21 (14-30)	18 (12-25)	15 (10-21)	13 (8.4-18)	11 (7.0-15)	8.9 (5.9-12)
3	58 (45-70)	52 (38-64)	45 (31-57)	38 (26-50)	33 (22-44)	29 (18-38)	24 (16-33)	21 (13-28)	17 (11-24)	15 (9.3-20)	12 (7.8-17)
4	68 (54-76)	62 (47-72)	56 (40-66)	49 (34-59)	44 (29-53)	38 (25-47)	33 (21-41)	28 (18-36)	24 (16-30)	20 (13-26)	17 (11-22)
5	76 (63-80)	72 (57-77)	66 (50-73)	61 (44-67)	55 (39-62)	49 (34-56)	44 (30-50)	38 (26-44)	33 (22-38)	28 (19-33)	23 (16-28)
6	81	79	75	71	66	61	55	49	43	37	32