

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 body mass index (BMI kg/m²), 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.

Age = 50 years

Number of CRFs	BMI (kg/m ²)						
	15	20	25	30	35	40	45
0	4.1	3.8	3.7	3.2	2.8	2.5	2.2
1	6.5 (4.5-9.3)	6.0 (4.1-8.3)	5.7 (3.9-7.8)	5.0 (3.4-6.8)	4.4 (3.0-6.0)	3.8 (2.6-5.2)	3.4 (2.3-4.6)
2	10 (5.6-17)	9.2 (5.0-16)	8.7 (4.6-15)	7.6 (4.1-13)	6.7 (3.5-12)	5.9 (3.1-10)	5.2 (2.7-9.0)
3	16 (8.0-27)	14 (6.9-25)	13 (6.3-23)	11 (5.5-21)	10 (4.8-18)	8.8 (4.2-16)	7.7 (3.7-14)
4	24 (14-36)	21 (12-32)	19 (10-30)	17 (9.0-27)	15 (7.9-24)	13 (6.8-21)	11 (6.0-19)
5	35 (23-43)	30 (20-39)	27 (19-36)	24 (17-32)	21 (15-28)	19 (13-25)	17 (12-22)
6	49	42	38	34	30	27	23

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

Age = 55 years

Number of CRFs	BMI (kg/m ²)						
	15	20	25	30	35	40	45
0	6.4	5.9	5.7	5.0	4.4	3.9	3.4
1	10 (7.0-14)	9.2 (6.4-12)	8.8 (6.0-12)	7.7 (5.3-10)	6.8 (4.6-9.0)	5.9 (4.0-7.8)	5.2 (3.5-6.9)
2	15 (8.8-24)	14 (7.8-23)	13 (7.2-22)	12 (6.3-19)	10 (5.5-17)	8.9 (4.8-15)	7.9 (4.2-13)
3	23 (13-37)	21 (11-35)	19 (9.8-33)	17 (8.6-30)	15 (7.5-26)	13 (6.5-24)	12 (5.7-21)
4	34 (21-49)	30 (18-45)	28 (16-42)	24 (14-38)	22 (12-34)	19 (11-30)	17 (9.2-27)
5	47 (34-57)	42 (30-52)	38 (28-49)	34 (25-44)	30 (22-40)	27 (20-36)	24 (17-32)
6	63	56	52	46	42	37	33

Age = 60 years

Number of CRFs	BMI (kg/m ²)						
	15	20	25	30	35	40	45
0	8.8	8.0	7.6	6.7	5.8	5.1	4.5
1	14 (9.8-18)	12 (8.6-16)	12 (8.1-15)	10 (7.0-13)	8.9 (6.1-12)	7.8 (5.3-10)	6.8 (4.7-8.9)
2	21 (12-31)	18 (11-29)	17 (9.8-27)	15 (8.5-24)	13 (7.4-22)	12 (6.4-19)	10 (5.6-17)
3	30 (18-46)	27 (15-43)	25 (13-41)	22 (12-37)	19 (10-33)	17 (8.8-29)	15 (7.6-26)
4	43 (29-58)	38 (25-54)	35 (22-51)	31 (19-46)	27 (16-42)	24 (14-37)	21 (12-34)
5	57 (44-67)	51 (39-62)	47 (37-58)	42 (32-53)	38 (29-48)	34 (25-43)	30 (22-39)
6	72	66	61	56	51	45	41

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

Age = 65 years

Number of CRFs	BMI (kg/m ²)						
	15	20	25	30	35	40	45
0	11	10	9.3	8.1	7.1	6.2	5.4
1	17 (13-22)	15 (11-19)	14 (10-18)	12 (8.6-16)	11 (7.5-14)	9.3 (6.5-12)	8.1 (5.6-11)
2	26 (17-36)	22 (14-33)	21 (12-32)	18 (11-28)	16 (9.1-25)	14 (7.9-22)	12 (6.9-20)
3	37 (24-52)	32 (20-48)	29 (17-46)	26 (15-41)	23 (13-37)	20 (11-33)	18 (9.4-29)
4	50 (37-65)	44 (32-60)	40 (27-57)	36 (23-52)	32 (20-47)	28 (18-42)	25 (15-38)
5	64 (53-73)	58 (47-68)	54 (43-65)	48 (39-59)	43 (34-54)	39 (30-49)	34 (27-44)
6	77	72	68	62	57	51	46

Age = 70 years

Number of CRFs	BMI (kg/m ²)						
	15	20	25	30	35	40	45
0	15	13	12	10	8.6	7.5	6.5
1	23 (17-27)	19 (14-24)	17 (13-21)	14 (11-18)	12 (9.3-16)	11 (8.0-14)	9.4 (6.9-12)
2	33 (23-43)	28 (19-37)	24 (16-33)	21 (13-29)	18 (12-25)	15 (9.9-22)	13 (8.5-19)
3	46 (33-60)	39 (27-53)	34 (22-48)	29 (19-42)	25 (16-37)	22 (14-33)	19 (12-28)
4	61 (49-74)	53 (41-67)	46 (35-61)	40 (30-55)	35 (26-49)	31 (22-43)	27 (19-38)
5	74 (68-81)	68 (61-77)	61 (53-70)	54 (46-64)	48 (40-57)	42 (35-51)	37 (30-45)
6	82	80	75	69	62	56	49

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

Age = 75 years

Number of CRFs	BMI (kg/m ²)						
	15	20	25	30	35	40	45
0	20	17	15	13	11	9.3	8.0
1	31 (23-41)	25 (19-32)	22 (16-25)	18 (14-22)	16 (12-19)	13 (10-16)	11 (8.6-14)
2	44 (31-59)	37 (25-49)	31 (21-40)	27 (18-34)	23 (15-29)	19 (13-25)	16 (11-22)
3	59 (44-73)	52 (36-67)	44 (30-58)	38 (25-51)	33 (21-45)	28 (18-39)	24 (15-33)
4	71 (57-81)	67 (52-78)	59 (45-73)	52 (39-66)	45 (33-59)	39 (28-52)	34 (24-46)
5	80 (71-85)	78 (69-84)	74 (64-81)	67 (57-76)	60 (51-70)	53 (44-63)	47 (39-56)
6	85	85	84	80	74	68	61

Age = 80 years

Number of CRFs	BMI (kg/m ²)						
	15	20	25	30	35	40	45
0	26	23	20	17	15	13	11
1	38 (29-51)	33 (25-43)	29 (22-34)	25 (19-29)	21 (16-24)	18 (13-21)	15 (11-18)
2	51 (38-65)	46 (33-58)	40 (28-51)	34 (24-44)	29 (20-37)	25 (17-32)	21 (14-27)
3	63 (49-75)	59 (45-71)	53 (39-65)	47 (34-59)	41 (29-52)	35 (24-45)	30 (20-39)
4	72 (60-81)	70 (59-79)	67 (54-77)	60 (48-72)	53 (41-66)	47 (35-59)	41 (30-52)
5	79 (71-84)	79 (70-84)	77 (68-83)	72 (62-79)	66 (56-74)	60 (50-69)	53 (44-62)
6	83	84	84	81	77	72	66

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

Age = 85 years

Number of CRFs	BMI (kg/m ²)						
	15	20	25	30	35	40	45
0	28	25	23	19	16	14	12
1	40 (31-54)	36 (28-47)	32 (25-39)	27 (21-33)	23 (17-28)	20 (15-23)	17 (12-19)
2	53 (40-67)	48 (35-62)	44 (31-54)	38 (26-47)	32 (22-41)	27 (19-35)	23 (16-30)
3	64 (50-76)	61 (47-73)	57 (43-68)	50 (37-62)	44 (31-55)	38 (27-48)	32 (22-42)
4	73 (62-81)	72 (60-80)	69 (57-79)	63 (50-74)	56 (43-68)	50 (37-62)	43 (32-55)
5	79 (72-82)	79 (71-84)	78 (70-84)	74 (64-80)	68 (58-76)	62 (51-71)	56 (45-64)
6	81	83	84	81	77	73	67

Age = 90 years

Number of CRFs	BMI (kg/m ²)						
	15	20	25	30	35	40	45
0	23	21	20	17	14	12	9.9
1	34 (25-47)	31 (23-41)	28 (21-35)	24 (18-30)	20 (15-25)	17 (12-20)	14 (10-17)
2	46 (33-61)	42 (30-56)	38 (27-49)	33 (23-42)	28 (19-36)	23 (16-31)	20 (13-26)
3	58 (43-71)	54 (40-68)	51 (37-63)	44 (31-56)	38 (26-49)	32 (22-43)	27 (18-36)
4	68 (54-77)	66 (52-75)	63 (50-73)	56 (43-68)	50 (37-61)	43 (31-55)	37 (26-48)
5	74 (66-78)	74 (64-80)	73 (62-79)	68 (56-75)	62 (50-70)	55 (44-64)	48 (38-58)
6	76	79	80	76	72	66	60