

The US (Black) - 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 (Black). 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	1.8	1.7	1.6	1.4	1.3	1.1	1.0
1	2.9 (2.0-4.2)	2.7 (1.8-3.7)	2.5 (1.7-3.5)	2.2 (1.5-3.0)	1.9 (1.3-2.7)	1.7 (1.1-2.3)	1.5 (1.0-2.0)
2	4.6 (2.5-7.7)	4.1 (2.2-7.1)	3.9 (2.1-6.8)	3.4 (1.8-6.0)	3.0 (1.6-5.3)	2.6 (1.4-4.6)	2.3 (1.2-4.1)
3	7.2 (3.5-13)	6.4 (3.1-12)	6.0 (2.8-11)	5.2 (2.5-9.6)	4.5 (2.1-8.5)	4.0 (1.9-7.4)	3.5 (1.6-6.5)
4	11 (6.1-18)	9.7 (5.2-16)	8.9 (4.7-15)	7.8 (4.0-13)	6.8 (3.5-11)	5.9 (3.0-9.9)	5.2 (2.6-8.7)
5	17 (11-22)	14 (9.5-19)	13 (8.9-18)	11 (7.8-15)	10 (6.8-14)	8.7 (5.9-12)	7.6 (5.2-10)
6	25	21	19	17	14	13	11

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

Age = 55 years

Number of CRFs	BMI (kg/m ²)						
	15	20	25	30	35	40	45
0	2.8	2.6	2.6	2.2	2.0	1.7	1.5
1	4.4 (3.1-6.3)	4.1 (2.8-5.6)	4.0 (2.7-5.3)	3.5 (2.3-4.6)	3.0 (2.0-4.0)	2.6 (1.8-3.5)	2.3 (1.6-3.1)
2	7.0 (3.9-11)	6.3 (3.5-11)	6.0 (3.2-10)	5.3 (2.8-9.0)	4.6 (2.5-7.9)	4.0 (2.1-7.0)	3.5 (1.9-6.1)
3	11 (5.6-18)	9.6 (4.9-17)	9.0 (4.4-16)	7.9 (3.8-14)	6.9 (3.3-13)	6.0 (2.9-11)	5.3 (2.5-9.7)
4	16 (9.6-25)	14 (8.1-23)	13 (7.3-21)	12 (6.3-19)	10 (5.5-17)	8.9 (4.7-15)	7.8 (4.1-13)
5	24 (16-31)	21 (14-27)	19 (14-26)	17 (12-22)	15 (10-20)	13 (9.1-17)	11 (7.9-15)
6	35	30	27	24	21	18	16

Age = 60 years

Number of CRFs	BMI (kg/m ²)						
	15	20	25	30	35	40	45
0	3.9	3.6	3.4	3.0	2.6	2.3	2.0
1	6.1 (4.3-8.3)	5.5 (3.8-7.4)	5.2 (3.6-6.9)	4.6 (3.1-6.0)	4.0 (2.7-5.2)	3.5 (2.4-4.5)	3.0 (2.1-4.0)
2	9.4 (5.5-15)	8.4 (4.8-14)	7.9 (4.4-13)	6.9 (3.8-12)	6.0 (3.3-10)	5.2 (2.9-8.9)	4.6 (2.5-7.8)
3	14 (8.1-23)	13 (6.8-21)	12 (6.1-20)	10 (5.2-18)	8.9 (4.5-16)	7.8 (3.9-14)	6.8 (3.4-12)
4	21 (14-31)	19 (11-29)	17 (10-27)	15 (8.6-24)	13 (7.4-21)	11 (6.4-18)	10 (5.5-16)
5	31 (22-39)	27 (19-34)	24 (18-32)	21 (16-28)	19 (14-25)	16 (12-22)	14 (10-19)
6	43	38	34	30	26	23	20

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

Age = 65 years

Number of CRFs	BMI (kg/m ²)						
	15	20	25	30	35	40	45
0	5.0	4.5	4.2	3.6	3.1	2.7	2.4
1	7.7 (5.6-10)	6.9 (4.9-8.9)	6.4 (4.5-8.2)	5.5 (3.8-7.1)	4.8 (3.3-6.2)	4.2 (2.9-5.4)	3.6 (2.5-4.7)
2	12 (7.4-17)	10 (6.2-16)	9.6 (5.5-15)	8.3 (4.7-13)	7.2 (4.1-12)	6.2 (3.5-10)	5.4 (3.0-9.0)
3	18 (11-27)	15 (9.0-25)	14 (7.8-24)	12 (6.6-21)	11 (5.7-18)	9.2 (4.9-16)	8.0 (4.2-14)
4	26 (18-36)	23 (15-33)	20 (13-31)	18 (11-27)	15 (9.3-24)	13 (7.9-21)	12 (6.8-19)
5	36 (28-45)	32 (24-40)	29 (22-37)	25 (19-33)	22 (16-29)	19 (14-25)	17 (12-22)
6	49	44	40	35	30	27	23

Age = 70 years

Number of CRFs	BMI (kg/m ²)						
	15	20	25	30	35	40	45
0	6.7	5.8	5.2	4.5	3.9	3.3	2.9
1	10 (7.7-13)	8.7 (6.4-11)	7.7 (5.7-9.9)	6.6 (4.8-8.5)	5.6 (4.1-7.3)	4.8 (3.5-6.3)	4.2 (3.0-5.4)
2	16 (10-22)	13 (8.4-18)	11 (7.2-16)	9.6 (6.1-14)	8.2 (5.2-12)	7.0 (4.4-10)	6.0 (3.7-8.6)
3	24 (16-34)	19 (13-28)	16 (10-25)	14 (8.7-21)	12 (7.4-18)	10 (6.2-16)	8.7 (5.3-13)
4	35 (25-47)	29 (21-40)	24 (17-34)	20 (14-29)	17 (12-25)	15 (10-22)	13 (8.6-19)
5	48 (42-57)	41 (34-49)	34 (28-42)	29 (24-36)	25 (20-31)	21 (17-27)	18 (14-23)
6	62	55	47	41	35	30	26

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

Age = 75 years

Number of CRFs	BMI (kg/m ²)						
	15	20	25	30	35	40	45
0	9.2	7.7	6.7	5.7	4.9	4.1	3.5
1	15 (11-21)	12 (8.8-16)	10 (7.5-12)	8.5 (6.3-10)	7.1 (5.3-8.8)	6.0 (4.5-7.5)	5.1 (3.8-6.4)
2	23 (15-34)	19 (12-26)	15 (9.7-20)	13 (8.1-17)	11 (6.8-14)	8.9 (5.7-12)	7.4 (4.8-10)
3	35 (22-48)	28 (18-40)	23 (14-33)	19 (12-27)	16 (9.9-23)	13 (8.3-19)	11 (6.9-16)
4	48 (33-62)	41 (28-55)	34 (23-46)	28 (19-39)	24 (16-33)	20 (13-28)	16 (11-24)
5	62 (48-71)	56 (43-66)	48 (37-57)	41 (32-50)	35 (27-43)	29 (23-36)	24 (19-31)
6	72	70	64	56	49	42	36

Age = 80 years

Number of CRFs	BMI (kg/m ²)						
	15	20	25	30	35	40	45
0	13	11	9.4	8.0	6.7	5.7	4.8
1	20 (14-29)	16 (12-22)	14 (10-17)	12 (8.7-14)	9.8 (7.3-12)	8.2 (6.1-9.7)	6.9 (5.1-8.3)
2	29 (20-42)	25 (16-34)	21 (14-28)	17 (11-23)	14 (9.4-19)	12 (7.8-16)	10 (6.5-13)
3	41 (28-55)	36 (24-48)	30 (20-40)	25 (17-34)	21 (14-29)	18 (12-24)	15 (9.6-20)
4	53 (38-65)	49 (35-61)	42 (31-54)	36 (26-47)	30 (21-41)	25 (18-35)	21 (15-29)
5	64 (51-72)	61 (48-70)	56 (44-65)	49 (38-58)	42 (32-51)	36 (27-44)	30 (23-37)
6	73	72	69	63	56	49	42

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

Age = 85 years

Number of CRFs	BMI (kg/m ²)						
	15	20	25	30	35	40	45
0	14	12	11	9.1	7.7	6.4	5.4
1	22 (16-32)	19 (14-26)	16 (12-20)	13 (9.9-17)	11 (8.2-14)	9.3 (6.9-11)	7.8 (5.7-9.2)
2	32 (22-46)	28 (18-38)	24 (16-32)	20 (13-26)	16 (11-22)	14 (8.9-18)	11 (7.4-15)
3	44 (30-58)	39 (27-52)	34 (23-45)	29 (19-38)	24 (16-32)	20 (13-27)	16 (11-23)
4	56 (41-68)	52 (38-64)	47 (34-59)	40 (29-52)	34 (24-45)	28 (20-38)	24 (16-33)
5	67 (54-74)	65 (51-73)	60 (47-69)	53 (41-62)	46 (35-55)	40 (30-48)	33 (25-41)
6	75	74	72	66	60	53	45

Age = 90 years

Number of CRFs	BMI (kg/m ²)						
	15	20	25	30	35	40	45
0	12	11	9.7	8.1	6.7	5.6	4.7
1	19 (13-28)	16 (12-23)	14 (10-19)	12 (8.6-15)	9.8 (7.1-12)	8.1 (5.8-10)	6.7 (4.8-8.2)
2	28 (18-41)	24 (16-35)	21 (14-28)	17 (11-23)	14 (9.3-19)	12 (7.6-16)	9.8 (6.3-13)
3	39 (26-53)	35 (23-47)	30 (20-41)	25 (17-34)	21 (14-29)	17 (11-24)	14 (9.1-20)
4	51 (36-63)	47 (33-59)	42 (30-54)	36 (25-47)	30 (20-40)	25 (17-34)	21 (14-29)
5	63 (48-70)	60 (45-68)	55 (42-64)	48 (36-57)	41 (30-50)	35 (25-43)	29 (21-37)
6	72	70	67	61	54	47	40