

New Zealand - 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 New Zealand. 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	1.6	1.5	1.3	1.1	1.0	0.9
1	2.9 (2.0-4.5)	2.6 (1.8-3.7)	2.4 (1.6-3.3)	2.1 (1.4-2.9)	1.8 (1.2-2.5)	1.6 (1.1-2.2)	1.4 (0.9-1.9)
2	4.8 (2.6-7.9)	4.1 (2.2-6.9)	3.7 (2.0-6.4)	3.2 (1.7-5.6)	2.8 (1.5-4.9)	2.4 (1.3-4.2)	2.1 (1.1-3.7)
3	7.8 (3.9-13)	6.4 (3.1-11)	5.7 (2.7-10)	4.9 (2.3-9.1)	4.3 (2.0-7.9)	3.7 (1.8-6.9)	3.2 (1.5-6.1)
4	12 (6.6-19)	10 (5.5-16)	8.7 (4.6-14)	7.5 (4.0-12)	6.5 (3.4-11)	5.6 (2.9-9.4)	4.9 (2.5-8.2)
5	19 (11-24)	15 (9.6-20)	13 (8.6-17)	11 (7.4-15)	9.7 (6.4-13)	8.4 (5.6-11)	7.3 (4.9-9.9)
6	29	23	19	17	14	12	11

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

Age = 55 years

Number of CRFs	BMI (kg/m ²)						
	15	20	25	30	35	40	45
0	2.7	2.3	2.2	1.9	1.6	1.4	1.2
1	4.3 (3.1-6.3)	3.7 (2.6-5.2)	3.4 (2.3-4.6)	2.9 (2.0-4.0)	2.5 (1.7-3.4)	2.2 (1.5-3.0)	1.9 (1.3-2.6)
2	7.0 (4.0-11)	5.9 (3.3-9.5)	5.2 (2.8-8.7)	4.5 (2.5-7.6)	3.9 (2.1-6.7)	3.4 (1.8-5.8)	3.0 (1.6-5.1)
3	11 (6.1-18)	9.1 (4.7-16)	8.0 (4.0-14)	6.9 (3.4-12)	6.0 (2.9-11)	5.2 (2.5-9.4)	4.5 (2.2-8.3)
4	17 (10-26)	14 (8.3-22)	12 (6.8-19)	10 (5.8-17)	9.0 (5.0-15)	7.8 (4.3-13)	6.8 (3.7-11)
5	27 (17-33)	21 (14-27)	18 (12-23)	15 (11-20)	13 (9.2-18)	12 (8.0-15)	10 (6.9-13)
6	39	31	26	22	19	17	15

Age = 60 years

Number of CRFs	BMI (kg/m ²)						
	15	20	25	30	35	40	45
0	3.6	3.1	2.8	2.4	2.1	1.8	1.6
1	5.9 (4.3-8.3)	4.9 (3.5-6.7)	4.3 (3.0-5.8)	3.8 (2.6-5.0)	3.2 (2.2-4.3)	2.8 (1.9-3.7)	2.4 (1.7-3.2)
2	9.5 (5.8-15)	7.7 (4.5-12)	6.7 (3.8-11)	5.8 (3.2-9.4)	5.0 (2.8-8.2)	4.3 (2.4-7.1)	3.7 (2.1-6.2)
3	15 (8.9-23)	12 (6.7-19)	10 (5.4-17)	8.8 (4.6-15)	7.6 (3.9-13)	6.5 (3.4-12)	5.7 (2.9-10)
4	23 (14-32)	18 (11-27)	15 (9.3-24)	13 (7.9-21)	11 (6.7-18)	9.8 (5.7-16)	8.4 (4.8-14)
5	34 (24-41)	27 (19-33)	22 (16-29)	19 (14-25)	17 (12-22)	14 (10-19)	12 (8.8-16)
6	48	39	32	28	24	21	18

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

Age = 65 years

Number of CRFs	BMI (kg/m ²)						
	15	20	25	30	35	40	45
0	6.0	5.0	4.4	3.8	3.2	2.8	2.4
1	9.6 (7.2-13)	7.8 (5.7-10)	6.8 (4.8-8.7)	5.8 (4.1-7.5)	5.0 (3.5-6.5)	4.3 (3.0-5.6)	3.7 (2.6-4.8)
2	15 (9.8-21)	12 (7.5-17)	10 (6.1-16)	8.9 (5.2-14)	7.6 (4.4-12)	6.6 (3.8-10)	5.7 (3.2-9.1)
3	23 (15-32)	18 (11-28)	15 (8.9-25)	13 (7.5-22)	11 (6.3-19)	9.8 (5.4-17)	8.5 (4.6-14)
4	33 (22-44)	27 (18-38)	23 (15-33)	19 (13-29)	17 (11-26)	14 (9.1-22)	12 (7.7-19)
5	46 (36-55)	38 (29-46)	32 (25-40)	28 (21-35)	24 (18-31)	21 (16-27)	18 (13-24)
6	61	52	45	39	34	30	26

Age = 70 years

Number of CRFs	BMI (kg/m ²)						
	15	20	25	30	35	40	45
0	10	8.0	6.8	5.8	5.0	4.2	3.6
1	16 (12-19)	12 (9.4-15)	10 (7.7-13)	8.7 (6.5-11)	7.4 (5.5-9.4)	6.3 (4.6-8.1)	5.4 (3.9-6.9)
2	24 (17-32)	19 (13-25)	15 (9.9-21)	13 (8.3-18)	11 (7.0-15)	9.3 (5.9-13)	7.9 (5.0-11)
3	36 (25-49)	28 (19-40)	23 (15-33)	19 (12-29)	16 (10-24)	14 (8.6-21)	12 (7.2-18)
4	51 (39-64)	41 (31-55)	33 (24-46)	28 (20-40)	24 (17-34)	20 (14-29)	17 (12-25)
5	65 (59-73)	57 (50-66)	47 (40-56)	41 (34-49)	35 (29-43)	30 (24-37)	25 (20-32)
6	77	72	63	56	49	42	36

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

Age = 75 years

Number of CRFs	BMI (kg/m ²)						
	15	20	25	30	35	40	45
0	15	12	10	8.6	7.3	6.1	5.2
1	25 (18-35)	19 (14-26)	16 (12-19)	13 (9.7-16)	11 (8.1-13)	9.2 (6.8-11)	7.7 (5.7-9.3)
2	37 (25-52)	30 (20-42)	24 (15-32)	20 (13-27)	17 (11-23)	14 (8.8-19)	12 (7.3-16)
3	52 (36-68)	44 (29-59)	36 (23-50)	30 (19-43)	25 (16-36)	21 (13-30)	17 (11-25)
4	66 (50-77)	59 (43-73)	51 (36-65)	44 (30-58)	37 (25-50)	31 (21-43)	26 (17-37)
5	76 (65-82)	73 (61-80)	67 (54-75)	59 (47-69)	52 (40-62)	45 (34-54)	38 (29-47)
6	83	82	80	74	68	61	53

Age = 80 years

Number of CRFs	BMI (kg/m ²)						
	15	20	25	30	35	40	45
0	21	18	16	13	11	9.3	7.8
1	32 (24-45)	27 (20-38)	23 (17-30)	19 (15-25)	16 (12-20)	14 (10-17)	11 (8.3-14)
2	44 (32-60)	39 (27-52)	33 (23-44)	28 (19-38)	24 (16-31)	20 (13-26)	16 (11-22)
3	57 (42-70)	52 (38-66)	46 (33-59)	40 (28-52)	34 (23-45)	28 (19-38)	24 (16-32)
4	68 (54-78)	65 (50-75)	60 (46-72)	53 (40-65)	46 (34-58)	40 (28-51)	34 (24-45)
5	77 (66-82)	75 (63-81)	72 (60-79)	66 (53-74)	59 (47-68)	53 (41-62)	46 (35-55)
6	82	82	81	76	71	65	59

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

Age = 85 years

Number of CRFs	BMI (kg/m ²)						
	15	20	25	30	35	40	45
0	25	23	21	18	15	13	11
1	35 (27-49)	32 (25-44)	30 (23-38)	25 (19-32)	21 (16-27)	18 (13-22)	15 (11-18)
2	47 (35-63)	44 (32-58)	41 (29-52)	35 (24-45)	30 (20-39)	25 (17-33)	21 (14-28)
3	59 (44-72)	56 (41-69)	53 (39-66)	46 (33-59)	40 (28-52)	34 (23-45)	29 (19-39)
4	69 (56-78)	67 (53-77)	64 (51-74)	58 (45-69)	52 (39-63)	45 (33-57)	39 (27-50)
5	76 (67-80)	75 (65-81)	74 (64-80)	69 (58-76)	63 (51-71)	57 (45-66)	50 (39-59)
6	78	81	81	77	73	68	62

Age = 90 years

Number of CRFs	BMI (kg/m ²)						
	15	20	25	30	35	40	45
0	24	22	21	18	15	12	10
1	34 (26-48)	32 (24-43)	30 (22-38)	25 (18-32)	21 (15-27)	17 (13-22)	15 (10-18)
2	46 (34-61)	43 (31-57)	40 (28-52)	34 (24-45)	29 (20-38)	24 (16-33)	20 (13-27)
3	57 (43-70)	55 (40-68)	52 (38-65)	45 (32-58)	39 (27-51)	33 (22-45)	28 (19-38)
4	66 (54-76)	65 (52-75)	63 (50-73)	57 (44-68)	51 (37-62)	44 (32-56)	38 (27-49)
5	72 (64-75)	73 (64-78)	72 (62-78)	68 (56-75)	62 (50-70)	56 (44-64)	49 (38-58)
6	71	77	79	76	71	66	60