

Spain - 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 Spain. 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	1.6	1.5	1.4	1.2	1.1	0.9	0.8
1	2.7 (1.8-4.0)	2.3 (1.6-3.3)	2.2 (1.5-3.0)	1.9 (1.3-2.6)	1.7 (1.1-2.3)	1.4 (1.0-2.0)	1.3 (0.8-1.7)
2	4.3 (2.3-7.1)	3.7 (2.0-6.2)	3.4 (1.8-5.8)	2.9 (1.5-5.1)	2.6 (1.3-4.5)	2.2 (1.2-3.9)	1.9 (1.0-3.4)
3	7.0 (3.5-12)	5.8 (2.8-10)	5.2 (2.5-9.5)	4.5 (2.1-8.3)	3.9 (1.8-7.3)	3.4 (1.6-6.4)	3.0 (1.4-5.6)
4	11 (6.0-17)	9.0 (4.9-14)	7.9 (4.2-13)	6.8 (3.6-11)	5.9 (3.1-9.8)	5.1 (2.7-8.6)	4.5 (2.3-7.5)
5	17 (10-22)	14 (8.7-18)	12 (7.8-16)	10 (6.8-14)	8.8 (5.9-12)	7.7 (5.1-10)	6.7 (4.5-9.1)
6	26	21	17	15	13	11	9.8

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

Age = 55 years

Number of CRFs	BMI (kg/m ²)						
	15	20	25	30	35	40	45
0	2.5	2.2	2.0	1.8	1.5	1.3	1.2
1	4.1 (2.9-6.0)	3.5 (2.4-4.9)	3.2 (2.2-4.3)	2.7 (1.9-3.7)	2.4 (1.6-3.2)	2.1 (1.4-2.8)	1.8 (1.2-2.4)
2	6.6 (3.8-11)	5.5 (3.1-8.9)	4.9 (2.7-8.2)	4.3 (2.3-7.1)	3.7 (2.0-6.2)	3.2 (1.7-5.5)	2.8 (1.5-4.8)
3	11 (5.7-17)	8.6 (4.4-15)	7.5 (3.7-13)	6.5 (3.2-12)	5.6 (2.8-10)	4.9 (2.4-8.9)	4.2 (2.1-7.8)
4	17 (9.4-25)	13 (7.8-20)	11 (6.4-18)	9.8 (5.5-16)	8.5 (4.7-14)	7.4 (4.0-12)	6.4 (3.5-11)
5	26 (16-32)	20 (13-26)	17 (12-22)	15 (10-19)	13 (8.7-17)	11 (7.5-15)	9.5 (6.5-13)
6	38	30	25	21	18	16	14

Age = 60 years

Number of CRFs	BMI (kg/m ²)						
	15	20	25	30	35	40	45
0	3.2	2.6	2.4	2.1	1.8	1.6	1.3
1	5.1 (3.8-7.2)	4.2 (3.0-5.7)	3.7 (2.6-5.0)	3.2 (2.2-4.3)	2.8 (1.9-3.7)	2.4 (1.7-3.2)	2.1 (1.4-2.8)
2	8.3 (5.0-13)	6.7 (3.9-10)	5.8 (3.2-9.3)	5.0 (2.8-8.1)	4.3 (2.4-7.0)	3.7 (2.0-6.1)	3.2 (1.8-5.4)
3	13 (7.8-20)	10 (5.7-17)	8.8 (4.6-15)	7.6 (3.9-13)	6.5 (3.4-11)	5.6 (2.9-10)	4.9 (2.5-8.7)
4	20 (12-29)	16 (9.7-24)	13 (8.1-21)	11 (6.8-18)	9.8 (5.8-16)	8.5 (4.9-14)	7.3 (4.2-12)
5	31 (21-37)	24 (17-30)	20 (14-25)	17 (12-22)	15 (10-19)	13 (8.9-17)	11 (7.7-14)
6	45	35	28	25	21	18	16

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

Age = 65 years

Number of CRFs	BMI (kg/m ²)						
	15	20	25	30	35	40	45
0	5.1	4.1	3.6	3.1	2.7	2.3	2.0
1	8.2 (6.2-11)	6.5 (4.8-8.5)	5.6 (4.0-7.3)	4.8 (3.4-6.2)	4.2 (2.9-5.4)	3.6 (2.5-4.6)	3.1 (2.2-4.0)
2	13 (8.4-19)	10 (6.3-15)	8.6 (5.1-13)	7.4 (4.3-11)	6.4 (3.7-10)	5.5 (3.1-8.7)	4.7 (2.7-7.6)
3	20 (13-28)	16 (9.5-24)	13 (7.4-21)	11 (6.2-18)	9.6 (5.3-16)	8.2 (4.5-14)	7.1 (3.8-12)
4	30 (20-40)	23 (15-33)	19 (13-29)	17 (11-25)	14 (9.1-22)	12 (7.7-19)	11 (6.5-17)
5	42 (32-50)	34 (25-41)	28 (21-35)	24 (18-31)	21 (15-27)	18 (13-23)	15 (11-20)
6	58	47	39	34	30	26	22

Age = 70 years

Number of CRFs	BMI (kg/m ²)						
	15	20	25	30	35	40	45
0	8.4	6.5	5.5	4.7	4.0	3.4	2.9
1	13 (10-16)	10 (7.8-13)	8.3 (6.2-10)	7.0 (5.3-8.9)	6.0 (4.5-7.6)	5.1 (3.8-6.5)	4.4 (3.2-5.6)
2	21 (14-28)	16 (10-21)	13 (8.1-17)	11 (6.8-15)	9.0 (5.7-13)	7.6 (4.8-11)	6.5 (4.1-9.2)
3	32 (22-45)	24 (16-35)	19 (12-28)	16 (10-24)	13 (8.4-20)	11 (7.0-17)	9.6 (5.9-15)
4	47 (36-61)	36 (27-49)	28 (21-39)	24 (17-34)	20 (14-29)	17 (12-25)	14 (10-21)
5	63 (57-72)	52 (45-61)	41 (35-49)	35 (29-43)	30 (24-37)	25 (20-31)	21 (17-27)
6	78	69	57	50	43	37	31

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

Age = 75 years

Number of CRFs	BMI (kg/m ²)						
	15	20	25	30	35	40	45
0	13	10	8.2	6.9	5.8	4.9	4.2
1	22 (16-31)	16 (12-22)	13 (9.6-16)	11 (7.9-13)	8.9 (6.6-11)	7.5 (5.5-8.9)	6.2 (4.6-7.6)
2	34 (22-48)	26 (17-37)	20 (13-27)	17 (10-23)	14 (8.7-19)	11 (7.2-15)	9.5 (6.0-13)
3	49 (33-64)	39 (25-55)	30 (19-43)	25 (16-37)	21 (13-31)	18 (11-26)	15 (8.9-22)
4	64 (48-76)	55 (39-70)	45 (31-59)	38 (26-52)	32 (22-45)	27 (18-38)	22 (15-32)
5	76 (64-82)	71 (57-79)	62 (48-71)	54 (42-64)	47 (35-56)	40 (30-48)	34 (25-41)
6	84	82	77	71	64	56	49

Age = 80 years

Number of CRFs	BMI (kg/m ²)						
	15	20	25	30	35	40	45
0	19	16	13	11	9.5	8.0	6.7
1	29 (22-43)	24 (18-34)	20 (15-26)	17 (13-22)	14 (10-18)	12 (8.7-15)	9.8 (7.2-12)
2	42 (30-58)	36 (25-49)	30 (20-40)	25 (17-34)	21 (14-28)	17 (11-23)	14 (9.4-19)
3	55 (40-69)	49 (36-63)	42 (30-55)	36 (25-48)	30 (20-41)	25 (17-34)	21 (14-29)
4	67 (52-77)	63 (48-74)	56 (43-69)	49 (37-62)	43 (31-55)	36 (26-48)	31 (21-41)
5	76 (65-82)	74 (61-80)	70 (57-78)	63 (50-72)	57 (44-65)	49 (37-58)	43 (32-51)
6	83	82	80	75	70	63	56

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

Age = 85 years

Number of CRFs	BMI (kg/m ²)						
	15	20	25	30	35	40	45
0	21	18	16	13	11	9.4	7.9
1	31 (23-44)	27 (20-37)	23 (17-30)	19 (14-25)	16 (12-21)	14 (9.9-17)	11 (8.2-14)
2	43 (31-59)	38 (26-52)	33 (23-44)	28 (19-37)	24 (16-31)	20 (13-26)	16 (11-22)
3	56 (41-70)	51 (37-65)	46 (33-58)	39 (28-51)	33 (23-44)	28 (19-37)	23 (16-31)
4	67 (53-77)	64 (49-74)	59 (45-71)	52 (39-65)	45 (33-58)	39 (27-51)	33 (23-44)
5	75 (66-80)	74 (62-80)	71 (59-78)	65 (52-73)	59 (46-67)	52 (39-61)	45 (34-54)
6	79	81	80	76	71	64	58

Age = 90 years

Number of CRFs	BMI (kg/m ²)						
	15	20	25	30	35	40	45
0	14	13	12	10	8.4	7.0	5.8
1	22 (16-33)	20 (14-28)	18 (13-24)	15 (11-20)	12 (8.8-16)	10 (7.2-13)	8.3 (5.9-10)
2	32 (22-47)	29 (19-41)	26 (17-35)	22 (14-29)	18 (12-24)	15 (9.4-20)	12 (7.7-16)
3	44 (30-58)	40 (27-53)	36 (24-48)	31 (20-41)	25 (16-35)	21 (13-29)	17 (11-24)
4	55 (40-67)	52 (37-63)	48 (35-60)	42 (29-53)	35 (24-46)	30 (20-40)	25 (16-34)
5	65 (53-72)	63 (50-71)	60 (47-69)	54 (41-63)	47 (35-56)	40 (29-49)	34 (25-42)
6	71	72	71	65	59	52	45