

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 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 Spain. 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	8.5	5.4	3.7	2.7	2.1	1.7	1.5	1.3	1.3	1.2	1.2
1	13 (11-17)	8.3 (7.3-11)	5.6 (4.7-7.1)	4.1 (3.2-5.2)	3.2 (2.3-4.0)	2.6 (1.8-3.4)	2.2 (1.5-3.0)	2.0 (1.3-2.8)	1.9 (1.2-2.6)	1.8 (1.2-2.5)	1.7 (1.1-2.4)
2	20 (15-28)	13 (9.9-18)	8.6 (6.4-12)	6.2 (4.2-9.0)	4.8 (3.0-7.4)	3.9 (2.2-6.4)	3.3 (1.8-5.5)	3.0 (1.6-5.1)	2.8 (1.5-4.9)	2.7 (1.4-4.7)	2.6 (1.3-4.5)
3	29 (20-40)	19 (13-25)	13 (8.7-19)	9.2 (5.7-15)	7.1 (4.0-12)	5.7 (3.0-10)	4.8 (2.4-8.9)	4.3 (2.0-8.2)	4.1 (1.9-7.9)	3.9 (1.8-7.6)	3.8 (1.7-7.3)
4	41 (28-53)	27 (18-34)	19 (12-24)	13 (8.7-19)	10 (6.7-16)	8.3 (5.0-13)	6.9 (3.9-11)	6.2 (3.4-11)	5.9 (3.1-10)	5.6 (2.9-9.7)	5.4 (2.8-9.3)
5	55 (45-65)	38 (30-44)	27 (20-30)	19 (15-23)	15 (11-19)	12 (8.9-16)	9.8 (7.4-14)	8.8 (6.3-12)	8.3 (5.8-12)	7.9 (5.4-11)	7.6 (5.1-11)
6	70	51	37	27	20	16	14	12	12	11	11

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

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	10	7.0	4.9	3.7	2.9	2.4	2.0	1.8	1.7	1.6	1.5
1	16 (14-19)	11 (9.4-13)	7.5 (6.3-9.1)	5.6 (4.4-6.8)	4.3 (3.2-5.4)	3.5 (2.5-4.6)	3.0 (2.0-4.0)	2.7 (1.8-3.7)	2.5 (1.7-3.5)	2.4 (1.5-3.3)	2.3 (1.5-3.2)
2	23 (19-32)	16 (13-22)	11 (8.4-15)	8.3 (5.7-12)	6.5 (4.1-9.8)	5.2 (3.1-8.3)	4.4 (2.5-7.2)	4.0 (2.2-6.7)	3.7 (2.0-6.3)	3.5 (1.8-6.0)	3.3 (1.7-5.7)
3	34 (25-43)	23 (17-31)	16 (11-24)	12 (7.7-19)	9.4 (5.5-16)	7.6 (4.1-13)	6.4 (3.2-12)	5.8 (2.8-11)	5.4 (2.6-10)	5.1 (2.4-9.6)	4.8 (2.2-9.2)
4	46 (33-56)	33 (23-39)	23 (16-30)	17 (12-24)	13 (9.1-20)	11 (6.9-17)	9.1 (5.4-15)	8.3 (4.7-14)	7.7 (4.2-13)	7.2 (3.9-12)	6.8 (3.6-12)
5	60 (52-68)	44 (37-49)	33 (26-37)	24 (19-29)	19 (15-24)	15 (12-20)	13 (9.7-17)	12 (8.4-16)	11 (7.6-15)	10 (7.0-14)	9.6 (6.5-14)
6	75	58	44	33	26	21	18	16	15	14	13

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	11	7.4	5.3	4.0	3.1	2.5	2.1	1.9	1.8	1.6	1.5
1	16 (14-18)	11 (9.8-13)	7.9 (6.6-9.3)	6.0 (4.7-7.1)	4.6 (3.5-5.8)	3.7 (2.7-4.9)	3.2 (2.2-4.3)	2.9 (1.9-4.0)	2.6 (1.7-3.7)	2.4 (1.6-3.4)	2.3 (1.5-3.2)
2	23 (19-30)	16 (13-21)	12 (9.0-15)	8.8 (6.2-12)	6.8 (4.5-10)	5.5 (3.4-8.5)	4.7 (2.7-7.5)	4.2 (2.3-6.9)	3.9 (2.1-6.4)	3.6 (1.9-6.0)	3.3 (1.8-5.6)
3	33 (25-41)	23 (18-31)	17 (12-24)	13 (8.3-20)	9.9 (5.9-16)	7.9 (4.4-14)	6.7 (3.6-12)	6.1 (3.1-11)	5.6 (2.7-10)	5.2 (2.5-9.6)	4.8 (2.3-9.0)
4	45 (34-53)	33 (24-39)	24 (17-31)	18 (13-25)	14 (9.8-21)	11 (7.4-17)	9.5 (5.9-15)	8.6 (5.0-14)	7.9 (4.5-13)	7.3 (4.0-12)	6.8 (3.7-12)
5	58 (51-65)	44 (38-48)	33 (28-38)	25 (21-30)	20 (16-25)	16 (13-21)	13 (10-18)	12 (8.8-17)	11 (7.7-15)	10 (7.0-14)	9.5 (6.4-13)
6	72	57	44	34	27	21	18	16	15	14	13

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

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	14	9.8	7.2	5.4	4.2	3.4	2.9	2.6	2.4	2.1	2.0
1	20 (18-23)	14 (13-16)	11 (8.9-12)	8.0 (6.4-9.5)	6.2 (4.7-7.8)	4.9 (3.6-6.4)	4.3 (3.0-5.8)	3.8 (2.6-5.3)	3.5 (2.3-4.8)	3.2 (2.1-4.5)	2.9 (1.9-4.1)
2	29 (24-35)	21 (17-26)	15 (12-19)	12 (8.4-16)	9.0 (6.1-13)	7.2 (4.5-11)	6.2 (3.7-9.7)	5.6 (3.2-8.8)	5.0 (2.8-8.1)	4.6 (2.5-7.5)	4.2 (2.3-6.9)
3	39 (32-47)	29 (23-37)	22 (16-30)	16 (11-25)	13 (8.1-20)	10 (6.0-17)	8.9 (4.9-15)	7.9 (4.2-14)	7.2 (3.6-13)	6.5 (3.2-12)	6.0 (2.9-11)
4	51 (41-58)	39 (30-46)	30 (22-38)	23 (17-31)	18 (13-26)	14 (10-22)	12 (8.1-19)	11 (6.8-18)	10 (5.9-16)	9.1 (5.2-15)	8.4 (4.7-14)
5	64 (58-69)	51 (45-55)	40 (35-45)	31 (27-37)	24 (21-31)	20 (16-26)	17 (13-23)	15 (11-21)	14 (9.9-19)	13 (8.8-18)	12 (7.9-16)
6	76	63	51	41	33	26	23	21	19	17	16

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	18	13	9.6	7.2	5.6	4.5	3.9	3.4	3.0	2.7	2.4
1	26 (24-31)	19 (17-23)	14 (12-17)	11 (8.6-12)	8.0 (6.3-9.4)	6.4 (4.9-7.4)	5.4 (4.1-6.3)	4.7 (3.4-5.5)	4.1 (3.0-4.9)	3.7 (2.6-4.4)	3.3 (2.3-4.0)
2	38 (31-47)	28 (22-36)	20 (16-27)	15 (11-20)	11 (8.2-15)	9.1 (6.3-12)	7.6 (5.1-10)	6.5 (4.2-8.8)	5.7 (3.6-7.8)	5.1 (3.2-7.0)	4.5 (2.8-6.3)
3	52 (41-63)	39 (30-50)	29 (21-39)	22 (15-30)	16 (11-23)	13 (8.3-19)	11 (6.7-16)	9.0 (5.6-14)	7.8 (4.7-12)	6.9 (4.1-11)	6.2 (3.6-9.8)
4	66 (56-74)	53 (42-61)	41 (31-49)	31 (23-38)	23 (17-30)	18 (13-24)	15 (11-21)	12 (8.9-18)	11 (7.6-16)	9.4 (6.6-14)	8.3 (5.8-13)
5	79 (73-82)	68 (60-72)	54 (47-59)	42 (36-47)	32 (27-37)	25 (21-30)	20 (17-25)	17 (14-22)	15 (12-19)	13 (11-17)	11 (9.3-15)
6	88	80	69	56	44	34	28	23	20	17	15

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

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	22	17	12	9.3	7.1	5.8	4.9	4.2	3.6	3.1	2.8
1	34 (29-53)	26 (21-40)	19 (15-29)	14 (11-21)	11 (8.2-15)	8.5 (6.4-11)	7.0 (5.2-8.8)	5.8 (4.3-6.9)	4.9 (3.6-5.7)	4.2 (3.1-5.0)	3.7 (2.7-4.4)
2	49 (37-69)	38 (27-57)	29 (20-44)	22 (15-33)	16 (11-24)	13 (8.4-19)	10 (6.7-14)	8.2 (5.5-11)	6.8 (4.5-9.0)	5.8 (3.8-7.8)	4.9 (3.3-6.9)
3	64 (48-79)	53 (36-69)	42 (27-56)	32 (20-44)	24 (14-34)	19 (11-26)	15 (8.9-21)	12 (7.2-17)	9.5 (6.0-13)	7.9 (5.0-11)	6.7 (4.3-9.4)
4	77 (60-85)	68 (48-78)	57 (37-68)	45 (28-56)	35 (21-43)	27 (16-34)	21 (13-27)	17 (11-22)	13 (9.1-18)	11 (7.8-15)	9.0 (6.7-12)
5	85 (73-89)	80 (63-84)	71 (52-77)	60 (41-66)	49 (32-54)	39 (25-43)	30 (21-35)	24 (17-28)	19 (14-22)	15 (12-18)	12 (10-15)
6	90	87	82	75	64	53	43	34	27	21	17

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	28	22	17	13	10	8.5	7.1	6.1	5.2	4.5	3.9
1	40 (33-58)	31 (25-47)	24 (19-37)	19 (15-28)	15 (11-21)	12 (9.1-17)	10 (7.5-13)	8.4 (6.2-11)	7.1 (5.2-8.5)	6.0 (4.4-6.9)	5.2 (3.8-6.0)
2	53 (41-70)	43 (32-61)	35 (25-51)	27 (19-41)	21 (15-32)	17 (12-26)	14 (9.6-21)	12 (7.9-16)	9.8 (6.5-13)	8.2 (5.5-11)	7.0 (4.6-9.1)
3	65 (50-78)	56 (41-71)	47 (33-62)	38 (25-51)	30 (20-42)	25 (16-34)	20 (13-28)	16 (10-23)	13 (8.6-19)	11 (7.2-15)	9.4 (6.1-13)
4	75 (60-83)	68 (51-78)	60 (41-71)	51 (33-61)	42 (26-51)	35 (22-43)	28 (18-35)	23 (15-29)	19 (12-24)	15 (11-20)	13 (9.0-17)
5	82 (70-86)	78 (63-83)	72 (54-77)	64 (45-70)	55 (37-61)	46 (31-52)	39 (26-44)	32 (22-37)	26 (18-30)	21 (16-25)	17 (14-21)
6	87	85	81	75	67	59	51	43	35	29	23

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

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	26	21	17	13	11	9.1	7.7	6.6	5.6	4.8	4.2
1	37 (29-53)	30 (23-44)	24 (18-35)	19 (14-28)	16 (12-22)	13 (9.6-18)	11 (7.9-15)	9.1 (6.6-12)	7.7 (5.6-9.6)	6.5 (4.7-7.9)	5.6 (4.0-6.5)
2	48 (37-65)	41 (30-57)	33 (24-48)	27 (19-39)	22 (15-32)	18 (12-27)	15 (10-22)	13 (8.5-18)	11 (7.1-15)	8.9 (5.9-12)	7.5 (5.0-10)
3	60 (46-74)	53 (38-67)	45 (31-58)	37 (24-49)	31 (20-41)	26 (16-35)	21 (14-29)	18 (11-24)	15 (9.3-20)	12 (7.8-17)	10 (6.6-14)
4	71 (56-79)	64 (47-74)	57 (39-67)	48 (32-59)	42 (27-51)	35 (22-44)	30 (19-37)	25 (16-31)	20 (13-26)	17 (11-22)	14 (9.6-18)
5	79 (65-83)	74 (58-79)	68 (50-74)	61 (43-67)	54 (36-60)	47 (31-53)	40 (27-46)	34 (23-39)	28 (19-33)	23 (16-28)	19 (14-23)
6	83	81	77	72	66	59	52	45	38	32	26

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	17	14	11	8.9	7.5	6.4	5.4	4.6	3.9	3.3	2.8
1	24 (18-36)	20 (15-30)	16 (12-24)	13 (9.3-19)	11 (7.8-16)	9.1 (6.5-13)	7.7 (5.5-11)	6.5 (4.6-8.9)	5.4 (3.9-7.3)	4.6 (3.3-6.0)	3.9 (2.7-5.0)
2	33 (24-47)	28 (19-40)	22 (15-33)	18 (12-27)	16 (10-23)	13 (8.6-19)	11 (7.2-16)	9.2 (6.0-13)	7.7 (5.0-11)	6.4 (4.2-9.1)	5.4 (3.5-7.6)
3	44 (30-56)	37 (25-49)	31 (20-42)	26 (16-36)	22 (14-30)	19 (11-26)	16 (9.5-22)	13 (8.0-18)	11 (6.7-15)	9.1 (5.6-13)	7.6 (4.7-11)
4	55 (39-65)	48 (32-58)	41 (27-51)	35 (22-44)	30 (19-38)	26 (16-33)	22 (13-28)	18 (11-24)	15 (9.5-20)	13 (8.0-17)	11 (6.7-14)
5	65 (48-71)	59 (41-66)	53 (35-59)	46 (30-53)	41 (26-47)	35 (22-41)	30 (19-36)	26 (16-30)	22 (14-26)	18 (12-22)	15 (9.8-18)
6	73	69	64	58	52	46	40	35	30	25	21