

**Germany - The probabilities of a major osteoporotic fracture in men**

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 Germany. 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/m<sup>2</sup>.

**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	22	14	9.2	6.4	4.7	3.7	3.1	2.6	2.3	2.2	2.1
1	33 (27-41)	21 (19-27)	14 (12-18)	9.7 (8.1-12)	7.2 (5.6-9.1)	5.6 (4.1-7.1)	4.6 (3.2-6.0)	3.9 (2.6-5.3)	3.5 (2.3-4.8)	3.3 (2.1-4.6)	3.2 (2.0-4.5)
2	46 (36-60)	31 (24-42)	21 (17-29)	15 (11-20)	11 (7.4-15)	8.3 (5.3-13)	6.8 (4.0-11)	5.8 (3.2-9.7)	5.2 (2.8-8.9)	4.9 (2.6-8.5)	4.7 (2.4-8.2)
3	60 (46-74)	43 (32-55)	30 (22-39)	21 (15-30)	16 (9.9-24)	12 (7.0-20)	9.9 (5.3-17)	8.4 (4.2-15)	7.5 (3.6-14)	7.1 (3.3-13)	6.8 (3.1-13)
4	74 (60-84)	57 (42-68)	41 (29-49)	30 (20-38)	22 (15-30)	17 (12-26)	14 (8.6-22)	12 (6.8-19)	11 (5.8-18)	10 (5.3-17)	9.6 (5.0-16)
5	85 (78-90)	71 (60-78)	54 (44-61)	41 (32-46)	31 (24-37)	24 (18-30)	20 (15-26)	17 (13-23)	15 (11-21)	14 (9.8-20)	13 (9.2-19)
6	91	82	68	53	41	32	27	23	20	19	18

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

**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	19	13	8.4	6.0	4.4	3.5	2.8	2.4	2.2	2.0	1.9
1	28 (24-34)	19 (17-23)	13 (11-15)	8.9 (7.4-11)	6.7 (5.2-8.1)	5.2 (3.8-6.5)	4.2 (3.0-5.5)	3.5 (2.4-4.8)	3.2 (2.1-4.4)	3.0 (1.9-4.2)	2.8 (1.8-4.0)
2	39 (31-50)	27 (21-35)	18 (15-25)	13 (10-18)	9.8 (6.8-14)	7.6 (4.9-12)	6.2 (3.7-9.9)	5.2 (2.9-8.5)	4.7 (2.5-7.9)	4.4 (2.3-7.5)	4.1 (2.1-7.1)
3	52 (40-62)	37 (28-46)	26 (20-34)	19 (14-27)	14 (9.2-22)	11 (6.5-18)	8.9 (4.9-15)	7.4 (3.9-13)	6.7 (3.3-12)	6.3 (3.0-12)	5.9 (2.8-11)
4	64 (52-74)	49 (37-58)	36 (26-43)	26 (19-34)	20 (14-27)	15 (11-23)	13 (7.9-20)	11 (6.2-17)	9.4 (5.3-16)	8.8 (4.8-15)	8.3 (4.4-14)
5	76 (69-81)	62 (53-68)	47 (39-52)	36 (29-41)	27 (22-33)	21 (17-27)	17 (14-23)	15 (11-20)	13 (9.5-18)	12 (8.6-17)	11 (7.9-16)
6	84	73	60	47	36	29	23	20	18	16	16

**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	17	12	8.4	6.1	4.7	3.7	3.0	2.5	2.2	2.1	1.9
1	25 (23-29)	17 (16-20)	12 (11-15)	9.0 (7.5-11)	6.9 (5.3-8.1)	5.4 (4.0-6.7)	4.4 (3.1-5.7)	3.6 (2.5-4.9)	3.3 (2.2-4.5)	3.0 (2.0-4.2)	2.8 (1.8-4.0)
2	34 (28-43)	25 (20-31)	18 (14-23)	13 (10-17)	9.9 (7.1-14)	7.8 (5.2-12)	6.3 (3.9-9.8)	5.3 (3.1-8.5)	4.8 (2.7-7.9)	4.4 (2.4-7.4)	4.1 (2.2-6.9)
3	46 (36-54)	34 (26-41)	25 (19-32)	18 (14-26)	14 (9.5-21)	11 (6.9-18)	9.0 (5.2-15)	7.5 (4.1-13)	6.8 (3.5-12)	6.2 (3.1-11)	5.8 (2.8-11)
4	57 (47-65)	44 (34-51)	34 (25-40)	25 (19-33)	20 (14-27)	15 (11-22)	13 (8.3-19)	10 (6.5-17)	9.4 (5.5-15)	8.7 (4.9-14)	8.1 (4.4-14)
5	68 (62-73)	56 (49-61)	44 (37-49)	34 (28-40)	26 (22-32)	21 (17-27)	17 (14-23)	14 (11-20)	13 (9.6-18)	12 (8.4-17)	11 (7.7-16)
6	77	67	55	44	35	28	23	19	17	16	15

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

**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	17	12	9.0	6.8	5.3	4.2	3.4	2.8	2.5	2.3	2.1
1	24 (22-27)	17 (15-20)	13 (11-15)	9.8 (8.0-11)	7.6 (5.9-9.0)	6.0 (4.5-7.5)	4.9 (3.5-6.3)	4.1 (2.8-5.5)	3.7 (2.5-5.1)	3.4 (2.2-4.7)	3.1 (2.0-4.4)
2	32 (27-38)	24 (20-29)	18 (15-22)	14 (11-18)	11 (7.8-15)	8.6 (5.8-12)	6.9 (4.5-11)	5.9 (3.6-9.2)	5.3 (3.1-8.5)	4.8 (2.7-7.9)	4.4 (2.4-7.3)
3	41 (34-48)	32 (26-39)	25 (20-32)	19 (14-26)	15 (11-22)	12 (7.8-18)	9.7 (5.9-16)	8.2 (4.7-14)	7.4 (4.0-13)	6.7 (3.5-12)	6.2 (3.1-11)
4	51 (43-58)	41 (33-47)	32 (26-39)	25 (20-33)	20 (15-27)	16 (12-23)	13 (9.1-20)	11 (7.3-17)	10 (6.1-16)	9.2 (5.4-15)	8.5 (4.8-14)
5	60 (55-65)	51 (45-56)	41 (36-47)	33 (28-39)	27 (22-33)	22 (18-28)	18 (15-24)	15 (12-21)	14 (10-19)	12 (8.9-18)	11 (8.0-16)
6	68	60	50	42	34	28	23	20	18	16	15

**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	10	7.8	6.1	4.9	3.9	3.3	2.9	2.6	2.4
1	25 (22-31)	19 (16-24)	15 (12-18)	11 (9.0-14)	8.7 (6.8-11)	6.9 (5.2-8.3)	5.5 (4.1-6.6)	4.6 (3.3-5.5)	4.0 (2.9-4.8)	3.6 (2.5-4.3)	3.2 (2.2-3.9)
2	35 (28-43)	27 (21-34)	21 (16-27)	16 (12-21)	12 (9.1-16)	9.7 (6.9-13)	7.7 (5.3-10)	6.4 (4.3-8.8)	5.6 (3.6-7.7)	4.9 (3.1-6.9)	4.4 (2.7-6.2)
3	45 (37-54)	36 (28-45)	29 (22-37)	22 (16-30)	17 (12-24)	14 (9.2-19)	11 (7.1-16)	8.8 (5.7-13)	7.6 (4.8-12)	6.6 (4.1-10)	5.9 (3.6-9.2)
4	56 (47-63)	47 (38-55)	38 (30-46)	30 (23-37)	24 (18-30)	19 (14-25)	15 (11-20)	12 (8.5-17)	10 (7.1-15)	9.0 (6.1-13)	7.9 (5.3-12)
5	65 (58-70)	57 (50-63)	48 (41-55)	40 (33-46)	32 (26-38)	25 (20-31)	20 (16-25)	16 (13-21)	14 (11-18)	12 (9.7-16)	10 (8.5-14)
6	73	66	59	50	41	34	27	22	19	16	14

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

**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	17	14	11	8.3	6.5	5.2	4.2	3.6	3.1	2.7	2.4
1	26 (20-43)	21 (16-35)	16 (12-27)	13 (9.3-21)	10 (7.2-16)	7.8 (5.6-12)	6.2 (4.4-9.3)	5.2 (3.6-7.4)	4.4 (3.1-6.0)	3.8 (2.6-4.9)	3.3 (2.3-4.0)
2	37 (26-53)	30 (21-44)	24 (16-37)	19 (12-29)	15 (9.6-23)	12 (7.5-18)	9.2 (5.9-14)	7.5 (4.8-11)	6.3 (4.0-8.9)	5.3 (3.4-7.3)	4.5 (2.9-6.1)
3	48 (34-62)	41 (28-54)	34 (22-46)	28 (17-38)	22 (13-31)	17 (10-25)	13 (7.9-19)	11 (6.4-16)	9.0 (5.3-13)	7.5 (4.5-11)	6.3 (3.8-9.1)
4	60 (43-70)	53 (36-63)	45 (29-56)	38 (23-48)	31 (18-40)	25 (14-32)	19 (11-26)	16 (9.2-21)	13 (7.7-17)	11 (6.5-14)	8.8 (5.5-12)
5	70 (52-76)	64 (45-70)	57 (38-64)	49 (31-56)	41 (25-48)	34 (20-40)	27 (16-33)	22 (13-27)	18 (11-22)	15 (9.7-19)	12 (8.4-15)
6	78	73	68	61	53	45	37	31	26	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	16	13	11	8.6	7.0	5.7	4.7	4.0	3.5	3.1	2.7
1	24 (18-39)	20 (14-33)	16 (12-27)	13 (9.2-22)	10 (7.3-17)	8.4 (5.9-14)	6.9 (4.7-11)	5.8 (4.0-9.0)	5.0 (3.4-7.4)	4.3 (2.9-6.1)	3.8 (2.5-5.1)
2	33 (23-49)	28 (19-42)	23 (15-35)	19 (12-29)	15 (9.9-24)	12 (7.9-19)	10 (6.4-15)	8.4 (5.4-13)	7.1 (4.5-11)	6.1 (3.8-8.8)	5.2 (3.3-7.4)
3	44 (30-58)	38 (25-51)	32 (20-44)	27 (16-38)	22 (13-31)	18 (11-26)	15 (8.6-21)	12 (7.2-17)	10 (6.1-14)	8.6 (5.1-12)	7.3 (4.4-10)
4	55 (37-65)	48 (31-59)	42 (26-53)	36 (22-46)	30 (18-39)	25 (14-33)	21 (12-27)	17 (9.9-23)	14 (8.4-19)	12 (7.1-16)	10 (6.1-13)
5	65 (46-71)	59 (40-66)	53 (34-60)	46 (28-53)	40 (23-46)	34 (19-40)	28 (16-34)	24 (13-29)	20 (12-25)	17 (9.9-21)	14 (8.6-18)
6	73	69	64	58	51	44	38	32	27	23	19

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

**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	15	12	10	8.5	7.1	5.9	5.0	4.4	3.9	3.4	3.1
1	21 (16-35)	18 (13-30)	15 (11-25)	13 (8.9-21)	10 (7.3-17)	8.7 (6.0-14)	7.4 (5.0-12)	6.4 (4.3-10)	5.6 (3.8-8.5)	4.9 (3.3-7.2)	4.3 (2.9-6.1)
2	30 (21-44)	26 (17-39)	22 (14-33)	18 (12-28)	15 (9.8-23)	13 (8.1-19)	11 (6.8-16)	9.2 (5.8-14)	8.0 (5.0-12)	6.9 (4.3-10)	6.0 (3.7-8.6)
3	40 (27-53)	35 (23-47)	30 (19-42)	26 (16-36)	22 (13-31)	18 (11-26)	15 (9.1-22)	13 (7.8-19)	11 (6.7-16)	9.8 (5.8-14)	8.4 (5.0-12)
4	50 (34-61)	45 (29-56)	40 (25-50)	35 (21-44)	30 (18-38)	25 (15-33)	22 (12-28)	19 (11-25)	16 (9.2-21)	14 (8.0-18)	12 (6.9-16)
5	60 (42-66)	56 (37-62)	50 (32-57)	45 (27-51)	40 (23-46)	34 (20-40)	30 (17-35)	26 (14-31)	22 (13-27)	19 (11-24)	17 (9.6-21)
6	68	65	61	56	50	45	39	35	30	26	23

**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	11	9.4	8.0	6.7	5.7	4.8	4.2	3.7	3.3	2.9	2.6
1	16 (12-26)	14 (9.8-23)	12 (8.3-19)	10 (7.0-16)	8.5 (5.8-14)	7.1 (4.9-12)	6.2 (4.3-10)	5.5 (3.7-8.8)	4.8 (3.3-7.6)	4.3 (2.9-6.6)	3.8 (2.5-5.7)
2	23 (15-34)	20 (13-30)	17 (11-26)	15 (9.3-22)	12 (7.9-19)	10 (6.6-16)	9.1 (5.7-14)	8.0 (5.0-12)	7.0 (4.4-11)	6.2 (3.9-9.4)	5.4 (3.4-8.1)
3	31 (20-43)	27 (17-38)	24 (15-34)	21 (13-29)	18 (11-26)	15 (9.0-22)	13 (7.8-19)	12 (6.8-17)	10 (6.0-15)	8.9 (5.2-13)	7.8 (4.6-11)
4	41 (26-50)	36 (23-46)	32 (20-41)	28 (17-37)	25 (14-32)	21 (12-28)	19 (11-25)	17 (9.4-22)	15 (8.2-19)	13 (7.2-17)	11 (6.4-15)
5	50 (33-57)	46 (29-53)	42 (25-49)	38 (22-44)	34 (19-39)	29 (16-35)	26 (14-31)	23 (13-28)	21 (11-25)	18 (9.9-22)	16 (8.8-20)
6	59	56	52	48	44	39	35	32	28	25	22