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 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 Germany. 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/m²)						
	15	20	25	30	35	40	45
0	2.6	2.5	2.4	2.1	1.9	1.6	1.4
1	4.2 (2.8-6.2)	3.9 (2.6-5.6)	3.8 (2.5-5.2)	3.3 (2.2-4.5)	2.9 (1.9-4.0)	2.5 (1.7-3.4)	2.2 (1.5-3.0)
2	6.6 (3.6-11)	6.1 (3.2-10)	5.8 (3.1-10)	5.1 (2.7-8.8)	4.4 (2.3-7.7)	3.8 (2.0-6.8)	3.3 (1.8-5.9)
3	10 (5.2-18)	9.3 (4.6-16)	8.8 (4.2-16)	7.6 (3.6-14)	6.6 (3.2-12)	5.8 (2.7-11)	5.0 (2.4-9.3)
4	16 (8.7-24)	14 (7.5-22)	13 (6.9-21)	11 (5.9-18)	9.8 (5.1-16)	8.6 (4.4-14)	7.4 (3.8-12)
5	23 (14-30)	21 (13-27)	19 (13-25)	16 (11-22)	14 (9.7-19)	12 (8.4-17)	11 (7.4-15)
6	34	30	27	23	20	18	16

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

Age = 55 years

Number of CRFs	BMI (kg/m²)						
	15	**20**	**25**	**30**	**35**	**40**	**45**
0	2.6	2.4	2.4	2.0	1.8	1.5	1.3
1	4.1 (2.8-6.0)	3.8 (2.6-5.4)	3.6 (2.5-5.0)	3.2 (2.1-4.3)	2.7 (1.8-3.7)	2.4 (1.6-3.2)	2.1 (1.4-2.8)
2	6.5 (3.6-10)	5.9 (3.2-9.8)	5.6 (3.0-9.5)	4.8 (2.6-8.3)	4.2 (2.2-7.2)	3.6 (1.9-6.3)	3.1 (1.7-5.5)
3	10 (5.4-16)	9.0 (4.7-15)	8.4 (4.2-15)	7.3 (3.6-13)	6.3 (3.1-11)	5.4 (2.7-9.8)	4.7 (2.3-8.5)
4	15 (8.9-23)	13 (7.6-21)	12 (6.8-20)	11 (5.8-17)	9.3 (5.0-15)	8.0 (4.3-13)	6.9 (3.6-11)
5	22 (14-29)	20 (13-26)	18 (12-24)	16 (11-21)	13 (9.2-18)	12 (8.0-16)	10 (6.9-14)
6	32	28	26	22	19	17	14

Age = 60 years

Number of CRFs	BMI (kg/m²)						
	15	**20**	**25**	**30**	**35**	**40**	**45**
0	3.0	2.7	2.6	2.3	2.0	1.7	1.5
1	4.7 (3.3-6.7)	4.3 (3.0-5.9)	4.0 (2.8-5.4)	3.5 (2.4-4.7)	3.0 (2.0-4.0)	2.6 (1.7-3.5)	2.2 (1.5-3.0)
2	7.3 (4.4-11)	6.6 (3.8-11)	6.2 (3.4-10)	5.3 (2.9-8.8)	4.5 (2.5-7.6)	3.9 (2.1-6.6)	3.4 (1.8-5.8)
3	11 (6.7-17)	10 (5.6-16)	9.2 (4.9-16)	7.9 (4.2-14)	6.8 (3.5-12)	5.8 (3.0-10)	5.0 (2.6-8.8)
4	17 (11-24)	15 (9.1-22)	14 (8.0-21)	12 (6.7-18)	10 (5.6-16)	8.5 (4.8-14)	7.3 (4.0-12)
5	24 (16-31)	22 (15-28)	20 (14-26)	17 (12-22)	14 (10-19)	12 (8.6-17)	11 (7.4-14)
6	34	30	28	24	20	18	15

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

Age = 65 years

Number of CRFs	BMI (kg/m²)						
	15	20	25	30	35	40	45
0	3.7	3.4	3.3	2.8	2.4	2.0	1.7
1	5.8 (4.1-7.9)	5.3 (3.7-7.1)	5.0 (3.5-6.6)	4.2 (2.9-5.6)	3.6 (2.5-4.8)	3.1 (2.1-4.1)	2.6 (1.8-3.5)
2	8.7 (5.6-13)	8.0 (4.9-12)	7.5 (4.4-12)	6.4 (3.7-10)	5.4 (3.1-8.9)	4.6 (2.6-7.6)	3.9 (2.2-6.6)
3	13 (8.4-18)	12 (7.4-18)	11 (6.4-18)	9.4 (5.3-15)	8.0 (4.5-13)	6.8 (3.7-11)	5.8 (3.1-9.8)
4	19 (13-26)	17 (11-25)	16 (10-24)	14 (8.4-21)	12 (7.0-18)	9.8 (5.8-15)	8.3 (4.8-13)
5	26 (19-33)	24 (18-31)	23 (17-29)	19 (14-25)	16 (12-22)	14 (10-19)	12 (8.5-16)
6	35	33	31	27	23	19	17

Age = 70 years

Number of CRFs	BMI (kg/m²)						
	15	20	25	30	35	40	45
0	5.0	4.6	4.3	3.6	3.0	2.6	2.2
1	7.8 (5.5-9.9)	7.0 (5.0-8.9)	6.3 (4.6-8.2)	5.3 (3.8-6.9)	4.4 (3.2-5.8)	3.7 (2.6-4.9)	3.1 (2.2-4.1)
2	12 (7.7-17)	11 (6.7-15)	9.4 (6.0-13)	7.8 (4.9-11)	6.5 (4.1-9.5)	5.4 (3.4-7.9)	4.5 (2.8-6.7)
3	18 (11-26)	16 (10-23)	14 (8.9-20)	12 (7.3-17)	9.6 (6.0-14)	7.9 (5.0-12)	6.6 (4.1-10)
4	26 (17-35)	23 (15-32)	20 (14-29)	17 (11-24)	14 (9.2-21)	12 (7.5-17)	9.6 (6.1-14)
5	36 (30-44)	32 (27-41)	29 (24-37)	24 (19-31)	20 (16-26)	17 (13-22)	14 (11-18)
6	47	44	40	34	29	24	20

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

Age = 75 years

Number of CRFs	BMI (kg/m²)						
	15	20	25	30	35	40	45
0	6.5	5.9	5.4	4.4	3.6	3.0	2.5
1	11 (7.1-17)	9.4 (6.4-14)	8.2 (5.8-11)	6.7 (4.7-8.8)	5.5 (3.9-7.1)	4.5 (3.1-5.7)	3.7 (2.6-4.6)
2	17 (10-27)	15 (8.9-23)	13 (7.8-19)	10 (6.3-15)	8.4 (5.1-12)	6.8 (4.2-10)	5.5 (3.4-8.1)
3	25 (14-39)	22 (13-34)	19 (12-28)	16 (9.4-23)	13 (7.5-19)	10 (6.1-15)	8.4 (4.9-13)
4	36 (22-49)	33 (20-44)	29 (18-40)	24 (14-34)	19 (12-28)	16 (9.3-23)	13 (7.4-19)
5	48 (34-58)	44 (31-54)	40 (29-50)	34 (24-43)	28 (20-36)	23 (16-30)	19 (13-25)
6	61	57	53	46	40	33	27

Age = 80 years

Number of CRFs	BMI (kg/m²)						
	15	20	25	30	35	40	45
0	8.2	7.5	7.1	5.7	4.7	3.8	3.1
1	13 (9.0-21)	12 (8.1-18)	11 (7.5-15)	8.7 (6.0-12)	7.0 (4.8-9.8)	5.6 (3.9-7.8)	4.6 (3.1-6.2)
2	20 (13-32)	18 (11-28)	16 (10-24)	13 (8.2-19)	11 (6.5-15)	8.4 (5.2-12)	6.8 (4.2-9.8)
3	29 (18-42)	26 (16-38)	24 (14-34)	19 (12-28)	16 (9.1-23)	13 (7.3-19)	10 (5.8-15)
4	40 (25-52)	37 (23-48)	33 (22-44)	28 (18-37)	23 (14-31)	18 (11-26)	15 (9.0-21)
5	52 (37-61)	48 (33-57)	45 (31-54)	38 (26-47)	32 (21-40)	26 (17-34)	21 (14-28)
6	63	60	57	50	43	36	30

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

Age = 85 years

Number of CRFs	BMI (kg/m²)						
	15	20	25	30	35	40	45
0	9.9	9.0	8.6	7.0	5.6	4.6	3.7
1	16 (11-25)	14 (9.8-22)	13 (9.1-19)	10 (7.3-15)	8.4 (5.8-12)	6.8 (4.6-9.5)	5.5 (3.7-7.5)
2	24 (15-37)	21 (14-32)	19 (12-28)	16 (9.9-23)	13 (7.9-19)	10 (6.3-15)	8.1 (5.0-12)
3	34 (21-48)	31 (19-43)	28 (17-39)	23 (14-33)	19 (11-27)	15 (8.6-22)	12 (6.9-18)
4	45 (30-57)	42 (27-53)	38 (25-49)	32 (21-43)	27 (17-36)	22 (13-30)	18 (11-25)
5	56 (42-64)	53 (38-62)	50 (36-59)	43 (30-52)	37 (25-45)	31 (20-39)	25 (16-32)
6	64	64	62	55	48	42	35

Age = 90 years

Number of CRFs	BMI (kg/m²)						
	15	20	25	30	35	40	45
0	9.5	8.6	8.0	6.5	5.2	4.2	3.4
1	15 (11-24)	13 (9.3-21)	12 (8.6-18)	9.9 (6.8-14)	7.9 (5.4-11)	6.4 (4.3-9.0)	5.1 (3.5-7.1)
2	23 (15-36)	20 (13-32)	18 (12-27)	15 (9.3-22)	12 (7.4-18)	9.6 (5.9-14)	7.6 (4.7-11)
3	33 (20-46)	30 (18-42)	27 (16-38)	22 (13-32)	18 (10-26)	14 (8.2-21)	11 (6.5-17)
4	43 (28-55)	40 (26-52)	37 (24-48)	31 (20-41)	26 (16-35)	21 (13-29)	17 (10-24)
5	53 (40-61)	51 (37-60)	49 (35-57)	42 (29-51)	36 (24-44)	30 (19-37)	24 (16-31)
6	60	61	60	53	47	40	34