Netherlands - 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 Netherlands. 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	15	9.1	5.9	4.0	2.9	2.3	1.9	1.6	1.4	1.4	1.3
1	23 (18-29)	14 (12-18)	9.1 (8.0-12)	6.2 (5.2-7.9)	4.5 (3.5-5.7)	3.5 (2.6-4.4)	2.8 (2.0-3.7)	2.4 (1.6-3.2)	2.2 (1.4-3.0)	2.0 (1.3-2.8)	1.9 (1.2-2.7)
2	33 (24-45)	21 (16-30)	14 (11-20)	9.4 (7.0-13)	6.8 (4.7-9.8)	5.2 (3.3-8.1)	4.2 (2.5-6.9)	3.6 (2.0-6.0)	3.2 (1.7-5.5)	3.0 (1.6-5.2)	2.9 (1.5-5.0)
3	46 (33-61)	31 (22-41)	20 (14-27)	14 (9.7-20)	10 (6.3-16)	7.7 (4.4-13)	6.2 (3.3-11)	5.2 (2.6-9.6)	4.7 (2.2-8.8)	4.4 (2.0-8.4)	4.2 (1.9-8.1)
4	60 (45-74)	43 (30-54)	29 (19-36)	20 (13-26)	15 (9.5-20)	11 (7.3-17)	9.0 (5.5-14)	7.5 (4.3-12)	6.7 (3.6-11)	6.3 (3.3-11)	6.0 (3.1-10)
5	75 (65-84)	57 (46-66)	40 (32-46)	28 (22-32)	21 (16-25)	16 (12-20)	13 (9.6-17)	11 (8.0-15)	9.4 (6.8-13)	8.8 (6.2-13)	8.4 (5.8-12)
6	86	71	53	39	29	22	18	15	13	12	12

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

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	16	10	6.7	4.7	3.4	2.7	2.1	1.8	1.6	1.5	1.4
1	24 (20-28)	15 (14-19)	10 (9.1-12)	7.1 (6.0-8.6)	5.2 (4.1-6.3)	4.0 (3.0-4.9)	3.2 (2.3-4.2)	2.7 (1.8-3.6)	2.4 (1.6-3.3)	2.2 (1.5-3.1)	2.1 (1.4-3.0)
2	34 (26-45)	23 (18-30)	15 (12-21)	11 (8.1-14)	7.7 (5.5-11)	5.9 (3.9-8.9)	4.8 (2.9-7.5)	3.9 (2.3-6.4)	3.5 (1.9-5.9)	3.3 (1.7-5.6)	3.1 (1.6-5.3)
3	46 (35-59)	32 (24-41)	22 (16-28)	15 (11-22)	11 (7.4-17)	8.6 (5.2-14)	6.9 (3.8-12)	5.7 (3.0-10)	5.1 (2.5-9.4)	4.7 (2.3-8.9)	4.5 (2.1-8.4)
4	60 (46-71)	44 (32-53)	31 (22-37)	22 (15-28)	16 (11-22)	12 (8.4-18)	9.9 (6.3-15)	8.1 (4.9-13)	7.3 (4.1-12)	6.7 (3.7-11)	6.3 (3.4-11)
5	73 (65-81)	57 (48-65)	42 (34-47)	30 (24-34)	23 (18-27)	17 (14-22)	14 (11-18)	11 (8.8-16)	10 (7.5-14)	9.4 (6.6-13)	8.8 (6.1-13)
6	84	70	54	41	31	24	19	16	14	13	12

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	16	11	7.6	5.5	4.1	3.2	2.6	2.1	1.9	1.8	1.6
1	23 (21-27)	16 (15-19)	11 (9.9-13)	8.1 (6.8-9.5)	6.1 (4.8-7.2)	4.7 (3.6-5.8)	3.8 (2.7-4.9)	3.2 (2.2-4.2)	2.8 (1.9-3.9)	2.6 (1.7-3.6)	2.4 (1.6-3.4)
2	33 (27-41)	23 (19-30)	16 (13-21)	12 (9.2-16)	8.9 (6.5-12)	6.9 (4.7-10)	5.6 (3.5-8.5)	4.6 (2.7-7.3)	4.1 (2.3-6.8)	3.8 (2.1-6.3)	3.5 (1.9-5.9)
3	44 (35-53)	32 (25-39)	23 (18-30)	17 (13-24)	13 (8.7-19)	9.9 (6.2-16)	8.0 (4.6-13)	6.6 (3.6-11)	5.9 (3.1-11)	5.4 (2.7-9.9)	5.0 (2.4-9.3)
4	56 (45-65)	43 (33-50)	32 (23-38)	24 (17-30)	18 (13-24)	14 (9.9-20)	11 (7.6-17)	9.3 (5.8-15)	8.3 (4.9-14)	7.6 (4.3-13)	7.1 (3.9-12)
5	68 (62-74)	55 (48-60)	42 (36-46)	32 (27-37)	25 (20-30)	19 (16-24)	15 (12-20)	13 (10-17)	11 (8.6-16)	10 (7.5-15)	9.7 (6.8-14)
6	78	66	54	42	33	26	21	17	16	14	13

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

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	16	11	8.3	6.2	4.7	3.7	3.0	2.5	2.2	2.0	1.9
1	23 (21-25)	16 (15-18)	12 (10-14)	9.0 (7.5-10)	6.9 (5.5-8.1)	5.4 (4.1-6.7)	4.4 (3.2-5.6)	3.7 (2.6-4.9)	3.3 (2.2-4.4)	3.0 (2.0-4.1)	2.7 (1.8-3.8)
2	31 (26-38)	23 (19-28)	17 (14-21)	13 (10-16)	9.9 (7.3-13)	7.8 (5.4-11)	6.3 (4.1-9.4)	5.3 (3.2-8.1)	4.7 (2.8-7.5)	4.2 (2.4-6.9)	3.9 (2.1-6.4)
3	41 (33-48)	31 (25-37)	24 (19-30)	18 (14-25)	14 (9.8-20)	11 (7.2-17)	8.9 (5.4-14)	7.4 (4.3-12)	6.6 (3.6-11)	6.0 (3.1-11)	5.5 (2.8-9.9)
4	52 (43-58)	41 (33-46)	32 (24-38)	24 (19-31)	19 (14-26)	15 (11-22)	12 (8.6-18)	10 (6.8-16)	9.2 (5.7-15)	8.3 (4.9-14)	7.6 (4.4-13)
5	62 (57-67)	51 (46-55)	41 (36-46)	32 (28-38)	26 (22-31)	20 (17-26)	17 (14-22)	14 (11-19)	12 (9.5-17)	11 (8.2-16)	10 (7.3-15)
6	71	61	51	41	33	27	22	19	17	15	14

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	16	12	8.8	6.7	5.3	4.2	3.4	2.9	2.5	2.3	2.0
1	22 (19-27)	17 (14-21)	13 (11-16)	9.8 (7.9-12)	7.6 (5.9-9.2)	5.9 (4.5-7.2)	4.7 (3.5-5.7)	4.0 (2.9-4.7)	3.5 (2.5-4.1)	3.1 (2.2-3.7)	2.8 (1.9-3.3)
2	32 (26-39)	24 (19-30)	18 (14-23)	14 (11-18)	11 (7.9-14)	8.4 (6.0-11)	6.7 (4.6-9.0)	5.6 (3.7-7.6)	4.8 (3.1-6.7)	4.2 (2.7-5.9)	3.8 (2.4-5.3)
3	42 (34-51)	33 (26-42)	26 (19-34)	20 (14-27)	15 (11-21)	12 (8.0-17)	9.3 (6.1-14)	7.7 (4.9-12)	6.6 (4.1-10)	5.8 (3.5-9.0)	5.1 (3.1-8.1)
4	54 (45-61)	44 (36-52)	35 (28-42)	28 (21-34)	21 (16-27)	17 (12-22)	13 (9.4-18)	11 (7.5-15)	9.1 (6.3-13)	7.8 (5.4-12)	6.9 (4.7-10)
5	64 (57-69)	55 (48-61)	46 (39-52)	37 (30-43)	29 (24-34)	23 (18-28)	18 (14-22)	15 (12-19)	12 (9.9-16)	11 (8.6-14)	9.2 (7.5-13)
6	73	66	57	48	39	31	24	20	17	14	12

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

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	15	12	9.1	7.2	5.7	4.5	3.7	3.2	2.8	2.4	2.2
1	23 (17-38)	18 (13-30)	14 (10-23)	11 (8.0-18)	8.6 (6.2-13)	6.8 (4.8-10)	5.4 (3.8-7.8)	4.5 (3.2-6.2)	3.9 (2.7-5.0)	3.4 (2.4-4.1)	2.9 (2.1-3.5)
2	33 (23-48)	27 (18-40)	21 (14-32)	17 (11-25)	13 (8.3-20)	10 (6.5-15)	7.9 (5.1-12)	6.5 (4.2-9.4)	5.5 (3.5-7.7)	4.7 (3.0-6.3)	4.0 (2.6-5.3)
3	44 (30-58)	37 (24-50)	30 (19-42)	24 (15-34)	19 (11-27)	15 (8.7-21)	12 (6.8-17)	9.4 (5.6-14)	7.8 (4.7-11)	6.5 (4.0-9.4)	5.5 (3.4-7.9)
4	56 (39-66)	49 (32-59)	41 (26-51)	34 (20-43)	27 (16-35)	22 (13-28)	17 (9.9-22)	14 (8.1-18)	11 (6.8-15)	9.2 (5.8-12)	7.6 (5.0-10)
5	66 (48-73)	60 (41-67)	53 (34-60)	45 (28-52)	37 (22-44)	30 (18-36)	24 (14-29)	19 (12-24)	16 (10-19)	13 (8.7-16)	11 (7.6-13)
6	75	70	64	57	49	41	33	27	22	18	15

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	13	11	8.6	6.9	5.6	4.5	3.7	3.2	2.8	2.4	2.1
1	20 (15-34)	16 (12-28)	13 (9.4-22)	10 (7.5-18)	8.4 (6.0-14)	6.8 (4.8-11)	5.5 (3.8-8.6)	4.6 (3.2-7.0)	4.0 (2.8-5.8)	3.4 (2.4-4.8)	3.0 (2.0-4.0)
2	28 (19-43)	24 (16-36)	19 (13-30)	16 (10-24)	13 (8.0-20)	10 (6.4-16)	8.1 (5.2-13)	6.8 (4.3-10)	5.7 (3.6-8.5)	4.8 (3.1-7.0)	4.1 (2.6-5.9)
3	38 (25-52)	32 (21-45)	27 (17-38)	22 (14-32)	18 (11-26)	15 (8.7-21)	12 (7.0-17)	9.8 (5.8-14)	8.2 (4.9-12)	6.9 (4.1-9.7)	5.8 (3.5-8.2)
4	49 (32-59)	43 (27-53)	37 (22-47)	31 (18-40)	26 (15-33)	21 (12-28)	17 (9.6-22)	14 (8.1-19)	12 (6.9-16)	9.8 (5.9-13)	8.2 (5.0-11)
5	59 (40-66)	53 (34-60)	47 (29-54)	41 (24-47)	35 (20-41)	29 (16-34)	24 (13-29)	20 (11-24)	17 (9.6-20)	14 (8.3-17)	12 (7.1-14)
6	69	64	58	51	45	38	32	27	23	19	16

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

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	11	8.7	7.1	5.9	4.8	4.0	3.4	2.9	2.5	2.2	2.0
1	16 (12-28)	13 (9.5-23)	11 (7.8-19)	9.0 (6.3-16)	7.4 (5.1-13)	6.1 (4.2-10)	5.1 (3.5-8.5)	4.3 (3.0-7.1)	3.7 (2.6-5.9)	3.2 (2.2-5.0)	2.8 (1.9-4.2)
2	23 (15-36)	20 (13-31)	16 (10-26)	13 (8.6-22)	11 (7.0-18)	9.1 (5.7-15)	7.6 (4.7-12)	6.5 (4.0-10)	5.5 (3.4-8.5)	4.7 (3.0-7.2)	4.0 (2.5-6.1)
3	32 (20-45)	28 (17-39)	23 (14-34)	20 (12-29)	16 (9.5-24)	13 (7.8-20)	11 (6.5-17)	9.5 (5.5-14)	8.1 (4.7-12)	6.9 (4.0-10)	5.9 (3.4-8.4)
4	42 (26-53)	37 (22-47)	32 (19-42)	28 (16-36)	23 (13-31)	19 (11-26)	16 (8.9-22)	14 (7.6-19)	12 (6.5-16)	10 (5.6-13)	8.5 (4.8-11)
5	53 (34-60)	48 (29-54)	42 (25-49)	37 (21-43)	32 (17-38)	27 (14-32)	23 (12-28)	20 (10-24)	17 (9.0-21)	14 (7.7-18)	12 (6.7-15)
6	63	58	53	48	42	37	32	28	24	20	17

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	7.4	6.2	5.2	4.4	3.7	3.1	2.7	2.4	2.1	1.9	1.7
1	11 (7.9-19)	9.5 (6.6-16)	8.0 (5.5-14)	6.7 (4.6-12)	5.7 (3.9-9.8)	4.8 (3.2-8.2)	4.1 (2.8-7.0)	3.6 (2.4-6.1)	3.2 (2.1-5.2)	2.8 (1.9-4.5)	2.5 (1.6-3.9)
2	16 (11-26)	14 (8.9-23)	12 (7.5-19)	10 (6.3-16)	8.5 (5.3-14)	7.2 (4.4-12)	6.2 (3.8-9.9)	5.4 (3.3-8.6)	4.7 (2.9-7.4)	4.1 (2.5-6.4)	3.6 (2.2-5.6)
3	24 (14-34)	20 (12-30)	17 (10-26)	15 (8.6-22)	13 (7.2-19)	11 (6.1-16)	9.3 (5.3-14)	8.1 (4.6-12)	7.0 (4.0-10)	6.1 (3.5-9.0)	5.3 (3.0-7.8)
4	32 (19-42)	28 (16-37)	25 (14-33)	21 (12-28)	18 (9.8-25)	16 (8.3-21)	14 (7.2-18)	12 (6.3-16)	10 (5.5-14)	9.0 (4.8-12)	7.8 (4.2-11)
5	42 (25-49)	38 (21-44)	34 (18-39)	30 (16-35)	26 (13-31)	22 (11-27)	19 (9.8-23)	17 (8.6-21)	15 (7.6-18)	13 (6.6-16)	11 (5.8-14)
6	53	48	44	39	35	31	27	24	21	19	16