

Norway - The probabilities of a hip fracture in women

The following tables give the 10-year probability (%) of a hip 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 Norway. 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	16	8.5	4.4	2.3	1.2	0.6	0.3	0.2	0.1	0.0	0.0	
1	25 (17-31)	13 (9.0-17)	7.1 (4.7-9.2)	3.7 (2.4-4.8)	1.9 (1.2-2.5)	1.0 (0.6-1.3)	0.5 (0.3-0.7)	0.3 (0.2-0.3)	0.1 (0.1-0.2)	0.1 (0.1-0.1)	0.0 (0.0-0.1)	
2	36 (23-50)	21 (12-30)	11 (6.6-17)	5.9 (3.4-8.9)	3.0 (1.7-4.6)	1.6 (0.9-2.4)	0.8 (0.5-1.2)	0.4 (0.2-0.6)	0.2 (0.1-0.3)	0.1 (0.1-0.2)	0.1 (0.0-0.1)	
3	50 (33-70)	31 (18-46)	17 (9.8-27)	9.2 (5.1-15)	4.8 (2.7-7.9)	2.5 (1.4-4.1)	1.3 (0.7-2.1)	0.7 (0.4-1.1)	0.3 (0.2-0.6)	0.2 (0.1-0.3)	0.1 (0.1-0.2)	
4	66 (50-83)	44 (30-61)	26 (16-38)	14 (8.8-22)	7.5 (4.6-12)	3.9 (2.4-6.2)	2.0 (1.2-3.2)	1.0 (0.6-1.7)	0.6 (0.3-0.9)	0.3 (0.2-0.5)	0.2 (0.1-0.3)	
5	81 (72-91)	59 (48-73)	37 (29-50)	21 (16-30)	11 (8.4-16)	6.0 (4.4-8.7)	3.1 (2.3-4.5)	1.6 (1.2-2.4)	0.9 (0.6-1.3)	0.5 (0.3-0.7)	0.2 (0.2-0.4)	
6	92	75	51	31	17	9.1	4.8	2.5	1.3	0.7	0.4	

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

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	17	9.7	5.3	2.9	1.6	0.8	0.5	0.3	0.1	0.1	0.0
1	26 (18-31)	15 (10-18)	8.4 (5.6-10)	4.6 (3.0-5.6)	2.5 (1.6-3.1)	1.3 (0.9-1.7)	0.7 (0.5-0.9)	0.4 (0.3-0.5)	0.2 (0.2-0.3)	0.1 (0.1-0.2)	0.1 (0.0-0.1)
2	38 (25-50)	23 (14-31)	13 (7.9-18)	7.2 (4.3-10)	3.9 (2.3-5.7)	2.1 (1.3-3.1)	1.1 (0.7-1.7)	0.6 (0.4-0.9)	0.4 (0.2-0.5)	0.2 (0.1-0.3)	0.1 (0.1-0.2)
3	52 (35-69)	33 (21-48)	19 (12-30)	11 (6.5-17)	6.1 (3.5-9.6)	3.3 (1.9-5.3)	1.8 (1.0-2.9)	1.0 (0.6-1.6)	0.6 (0.3-0.9)	0.3 (0.2-0.5)	0.2 (0.1-0.3)
4	67 (53-83)	46 (33-62)	28 (20-41)	17 (11-25)	9.3 (6.1-14)	5.1 (3.3-7.9)	2.8 (1.8-4.3)	1.5 (1.0-2.4)	0.9 (0.6-1.4)	0.5 (0.3-0.8)	0.3 (0.2-0.4)
5	81 (74-90)	61 (53-75)	40 (33-53)	24 (20-33)	14 (11-20)	7.8 (6.1-11)	4.2 (3.3-6.1)	2.4 (1.9-3.4)	1.3 (1.0-1.9)	0.7 (0.6-1.1)	0.4 (0.3-0.6)
6	91	76	55	35	21	12	6.4	3.6	2.0	1.1	0.6

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	19	11	6.5	3.7	2.1	1.2	0.7	0.4	0.2	0.1	0.1
1	29 (20-33)	17 (12-20)	10 (6.8-12)	5.7 (3.8-6.7)	3.2 (2.2-3.8)	1.8 (1.2-2.1)	1.0 (0.7-1.2)	0.6 (0.4-0.7)	0.3 (0.2-0.4)	0.2 (0.1-0.2)	0.1 (0.1-0.1)
2	40 (28-51)	25 (16-33)	15 (9.5-20)	8.7 (5.4-12)	4.9 (3.1-6.8)	2.8 (1.7-3.9)	1.6 (1.0-2.2)	0.9 (0.6-1.3)	0.5 (0.3-0.7)	0.3 (0.2-0.4)	0.2 (0.1-0.3)
3	54 (39-70)	36 (24-50)	22 (14-32)	13 (8.2-20)	7.5 (4.6-11)	4.3 (2.6-6.6)	2.4 (1.5-3.8)	1.4 (0.9-2.2)	0.8 (0.5-1.3)	0.5 (0.3-0.7)	0.3 (0.2-0.4)
4	69 (57-83)	49 (38-64)	32 (23-45)	19 (14-28)	11 (7.9-17)	6.5 (4.5-9.8)	3.7 (2.5-5.7)	2.2 (1.5-3.3)	1.3 (0.9-1.9)	0.7 (0.5-1.1)	0.4 (0.3-0.7)
5	82 (77-90)	63 (57-76)	44 (38-56)	28 (23-37)	17 (14-23)	9.7 (8.0-14)	5.6 (4.6-8.0)	3.3 (2.7-4.7)	1.9 (1.6-2.7)	1.1 (0.9-1.6)	0.6 (0.5-0.9)
6	91	78	58	39	24	14	8.4	4.9	2.9	1.7	1.0

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

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	21	13	7.8	4.6	2.7	1.6	0.9	0.6	0.3	0.2	0.1
1	31 (22-36)	19 (14-23)	12 (8.1-14)	6.9 (4.8-8.3)	4.1 (2.8-4.9)	2.4 (1.6-2.9)	1.4 (1.0-1.7)	0.9 (0.6-1.0)	0.5 (0.4-0.6)	0.3 (0.2-0.4)	0.2 (0.1-0.2)
2	42 (30-52)	28 (19-35)	17 (11-22)	10 (6.7-14)	6.2 (4.0-8.2)	3.6 (2.3-4.8)	2.2 (1.4-2.9)	1.3 (0.8-1.8)	0.8 (0.5-1.1)	0.5 (0.3-0.6)	0.3 (0.2-0.4)
3	56 (42-69)	38 (27-51)	25 (17-34)	15 (10-22)	9.2 (6.0-13)	5.5 (3.5-8.0)	3.3 (2.1-4.9)	2.0 (1.3-3.0)	1.2 (0.8-1.8)	0.7 (0.5-1.1)	0.4 (0.3-0.7)
4	69 (59-81)	51 (41-65)	35 (27-47)	22 (16-31)	14 (9.8-20)	8.1 (5.8-12)	5.0 (3.5-7.3)	3.0 (2.1-4.5)	1.8 (1.3-2.7)	1.1 (0.8-1.6)	0.7 (0.5-1.0)
5	81 (77-88)	65 (59-76)	47 (41-59)	31 (26-41)	20 (16-27)	12 (9.8-17)	7.4 (6.0-10)	4.5 (3.6-6.3)	2.7 (2.2-3.9)	1.7 (1.3-2.3)	1.0 (0.8-1.4)
6	89	78	61	43	28	17	11	6.6	4.0	2.5	1.5

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	24	15	9.4	5.8	3.5	2.2	1.4	0.9	0.5	0.3	0.2
1	36 (32-43)	24 (21-29)	15 (13-19)	9.5 (8.1-12)	5.9 (5.0-7.4)	3.6 (3.1-4.6)	2.3 (1.9-2.9)	1.4 (1.2-1.8)	0.9 (0.8-1.2)	0.6 (0.5-0.7)	0.4 (0.3-0.5)
2	52 (44-63)	36 (30-46)	24 (19-32)	16 (12-21)	9.7 (7.5-13)	6.1 (4.7-8.3)	3.9 (2.9-5.3)	2.4 (1.9-3.4)	1.5 (1.2-2.1)	1.0 (0.7-1.3)	0.6 (0.5-0.8)
3	68 (58-77)	52 (42-62)	37 (28-46)	24 (18-32)	16 (11-21)	10 (7.1-13)	6.4 (4.5-8.7)	4.1 (2.9-5.6)	2.6 (1.8-3.5)	1.6 (1.1-2.2)	1.0 (0.7-1.4)
4	82 (74-86)	69 (58-75)	52 (42-60)	37 (28-44)	25 (18-30)	16 (12-20)	10 (7.5-13)	6.7 (4.8-8.5)	4.3 (3.0-5.4)	2.7 (1.9-3.4)	1.7 (1.2-2.2)
5	89 (86-91)	82 (76-85)	69 (61-73)	53 (45-58)	37 (31-42)	25 (20-29)	17 (13-19)	11 (8.6-13)	7.0 (5.5-8.2)	4.5 (3.5-5.2)	2.8 (2.2-3.3)
6	92	89	82	69	53	38	26	17	11	7.3	4.7

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

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	26	17	11	7.3	4.7	3.1	2.0	1.3	0.9	0.6	0.4
1	42 (34-69)	30 (23-54)	21 (16-40)	14 (10-28)	9.2 (6.6-19)	6.1 (4.4-13)	4.1 (2.9-8.6)	2.7 (1.9-5.7)	1.8 (1.3-3.8)	1.2 (0.8-2.5)	0.8 (0.5-1.6)
2	59 (44-82)	47 (32-71)	35 (22-58)	24 (14-43)	17 (9.3-31)	11 (6.2-22)	7.6 (4.1-15)	5.1 (2.7-10)	3.4 (1.8-6.8)	2.2 (1.2-4.5)	1.5 (0.8-3.0)
3	74 (58-88)	64 (43-81)	51 (31-71)	39 (21-58)	28 (14-44)	20 (9.3-32)	14 (6.2-23)	9.2 (4.1-16)	6.2 (2.7-11)	4.1 (1.8-7.3)	2.7 (1.2-4.9)
4	84 (72-90)	78 (58-87)	68 (44-80)	56 (32-70)	43 (22-57)	32 (15-44)	23 (10-33)	16 (6.7-23)	11 (4.5-16)	7.3 (3.0-11)	4.9 (2.0-7.4)
5	89 (82-92)	87 (73-90)	81 (61-86)	72 (47-79)	60 (34-68)	48 (24-55)	36 (17-42)	26 (12-31)	18 (7.9-22)	13 (5.3-15)	8.5 (3.5-10)
6	91	91	89	85	77	66	53	41	30	21	14

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	27	19	13	9.0	6.1	4.3	3.0	2.1	1.4	1.0	0.7
1	42 (33-68)	32 (24-56)	23 (17-44)	16 (12-33)	12 (8.0-24)	8.2 (5.6-17)	5.8 (3.9-12)	4.1 (2.7-8.7)	2.8 (1.9-6.1)	2.0 (1.3-4.2)	1.4 (0.9-2.9)
2	57 (43-78)	47 (32-70)	36 (23-59)	27 (16-48)	20 (11-37)	15 (7.9-28)	10 (5.5-20)	7.4 (3.8-15)	5.2 (2.7-10)	3.6 (1.8-7.3)	2.5 (1.3-5.1)
3	70 (55-84)	62 (43-79)	52 (32-71)	41 (23-60)	32 (16-49)	24 (12-38)	18 (8.3-29)	13 (5.8-22)	9.2 (4.0-16)	6.5 (2.8-11)	4.5 (1.9-8.0)
4	80 (67-87)	74 (56-84)	66 (44-78)	56 (33-70)	46 (24-60)	37 (18-50)	28 (13-40)	21 (9.1-31)	15 (6.4-23)	11 (4.5-17)	7.8 (3.1-12)
5	86 (75-89)	82 (68-86)	77 (58-82)	70 (47-77)	62 (36-69)	52 (28-60)	42 (21-50)	33 (15-40)	25 (11-30)	18 (7.6-23)	13 (5.4-16)
6	88	87	85	81	75	68	58	48	37	28	21

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

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	25	18	13	9.7	7.1	5.3	3.9	2.8	2.1	1.5	1.1
1	38 (31-63)	30 (23-54)	23 (17-44)	17 (13-34)	13 (9.3-27)	9.9 (6.9-21)	7.4 (5.1-16)	5.5 (3.7-12)	4.0 (2.7-8.7)	2.9 (2.0-6.4)	2.2 (1.4-4.7)
2	52 (40-73)	44 (31-65)	35 (23-56)	28 (17-47)	22 (13-39)	17 (9.6-31)	13 (7.1-24)	9.8 (5.2-19)	7.3 (3.8-14)	5.4 (2.8-11)	4.0 (2.0-7.9)
3	65 (49-79)	57 (40-74)	49 (32-67)	41 (24-59)	34 (19-50)	27 (14-42)	21 (11-34)	16 (7.9-27)	12 (5.8-21)	9.3 (4.2-16)	7.0 (3.1-12)
4	75 (59-83)	69 (51-79)	62 (42-74)	55 (33-67)	47 (26-60)	40 (20-52)	32 (16-43)	26 (12-36)	20 (8.8-28)	15 (6.5-22)	12 (4.8-17)
5	81 (69-85)	78 (62-82)	73 (54-79)	67 (45-73)	61 (37-67)	54 (30-61)	46 (24-53)	38 (18-45)	31 (14-37)	24 (11-29)	19 (7.9-23)
6	85	84	81	77	73	67	60	52	44	36	29

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	19	14	11	8.5	6.6	5.2	4.0	3.1	2.4	1.9	1.4
1	30 (24-53)	24 (18-45)	19 (14-37)	15 (11-30)	12 (8.6-25)	9.6 (6.7-20)	7.5 (5.2-16)	5.9 (4.1-13)	4.6 (3.2-10)	3.6 (2.4-7.8)	2.8 (1.9-6.1)
2	43 (31-64)	36 (25-56)	30 (19-49)	24 (15-41)	20 (12-35)	16 (9.4-29)	13 (7.4-24)	10 (5.7-19)	8.2 (4.4-16)	6.4 (3.4-12)	5.0 (2.7-9.7)
3	56 (39-72)	49 (32-66)	42 (26-60)	36 (21-53)	31 (17-46)	25 (13-40)	21 (11-33)	17 (8.3-27)	14 (6.5-22)	11 (5.1-18)	8.6 (4.0-14)
4	67 (49-77)	62 (42-73)	56 (35-68)	49 (29-62)	43 (24-56)	37 (19-49)	32 (15-42)	26 (12-36)	22 (9.7-30)	18 (7.6-24)	14 (6.0-20)
5	76 (60-80)	72 (53-77)	68 (46-73)	62 (39-68)	57 (33-63)	51 (28-57)	44 (23-51)	38 (18-45)	32 (15-38)	27 (12-32)	22 (9.4-27)
6	80	79	77	73	69	64	58	52	45	39	33