

Switzerland - 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 Switzerland. 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	8.3	4.3	2.2	1.1	0.6	0.3	0.2	0.1	0.0	0.0	
1	24 (16-30)	13 (8.7-17)	6.9 (4.5-9.0)	3.6 (2.3-4.7)	1.8 (1.2-2.4)	0.9 (0.6-1.2)	0.5 (0.3-0.6)	0.3 (0.2-0.3)	0.1 (0.1-0.2)	0.1 (0.0-0.1)	0.0 (0.0-0.1)	
2	35 (22-49)	20 (12-29)	11 (6.4-16)	5.7 (3.3-8.6)	2.9 (1.7-4.5)	1.5 (0.9-2.3)	0.8 (0.4-1.2)	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	49 (32-69)	30 (18-45)	17 (9.6-26)	8.9 (5.0-14)	4.6 (2.6-7.7)	2.4 (1.3-4.0)	1.2 (0.7-2.0)	0.6 (0.4-1.1)	0.3 (0.2-0.6)	0.2 (0.1-0.3)	0.1 (0.1-0.2)	
4	65 (49-82)	43 (29-60)	25 (16-37)	14 (8.5-21)	7.2 (4.4-11)	3.8 (2.3-6.0)	1.9 (1.2-3.1)	1.0 (0.6-1.6)	0.5 (0.3-0.9)	0.3 (0.2-0.5)	0.1 (0.1-0.2)	
5	80 (71-90)	58 (47-72)	36 (28-48)	21 (15-29)	11 (8.2-16)	5.8 (4.2-8.4)	3.0 (2.2-4.4)	1.6 (1.1-2.3)	0.8 (0.6-1.2)	0.4 (0.3-0.7)	0.2 (0.2-0.3)	
6	91	74	50	30	17	8.9	4.6	2.4	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 Switzerland.

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	15	8.1	4.5	2.4	1.3	0.7	0.4	0.2	0.1	0.1	0.0
1	22 (15-27)	13 (8.5-15)	7.0 (4.7-8.6)	3.8 (2.5-4.7)	2.1 (1.4-2.5)	1.1 (0.7-1.4)	0.6 (0.4-0.7)	0.3 (0.2-0.4)	0.2 (0.1-0.2)	0.1 (0.1-0.1)	0.1 (0.0-0.1)
2	33 (21-44)	19 (12-27)	11 (6.6-16)	6.0 (3.6-8.6)	3.3 (1.9-4.7)	1.8 (1.0-2.6)	0.9 (0.6-1.4)	0.5 (0.3-0.8)	0.3 (0.2-0.4)	0.2 (0.1-0.2)	0.1 (0.1-0.1)
3	46 (30-63)	28 (18-42)	16 (9.9-25)	9.2 (5.4-15)	5.1 (2.9-8.1)	2.7 (1.6-4.4)	1.5 (0.9-2.4)	0.8 (0.5-1.3)	0.5 (0.3-0.7)	0.3 (0.2-0.4)	0.1 (0.1-0.2)
4	61 (46-77)	40 (29-56)	24 (17-36)	14 (9.2-21)	7.8 (5.1-12)	4.3 (2.7-6.7)	2.3 (1.5-3.6)	1.3 (0.8-2.0)	0.7 (0.5-1.1)	0.4 (0.3-0.6)	0.2 (0.1-0.4)
5	76 (68-87)	55 (47-69)	35 (29-47)	21 (17-29)	12 (9.3-17)	6.5 (5.1-9.3)	3.5 (2.8-5.1)	2.0 (1.5-2.9)	1.1 (0.9-1.6)	0.6 (0.5-0.9)	0.3 (0.3-0.5)
6	88	70	48	30	17	9.8	5.4	3.0	1.7	0.9	0.5

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	15	8.6	4.9	2.8	1.5	0.9	0.5	0.3	0.2	0.1	0.1
1	22 (16-26)	13 (9.0-15)	7.6 (5.1-9.0)	4.3 (2.9-5.1)	2.4 (1.6-2.9)	1.3 (0.9-1.6)	0.8 (0.5-0.9)	0.4 (0.3-0.5)	0.3 (0.2-0.3)	0.1 (0.1-0.2)	0.1 (0.1-0.1)
2	32 (21-42)	20 (13-26)	12 (7.2-16)	6.6 (4.1-9.1)	3.7 (2.3-5.2)	2.1 (1.3-2.9)	1.2 (0.7-1.7)	0.7 (0.4-1.0)	0.4 (0.2-0.6)	0.2 (0.1-0.3)	0.1 (0.1-0.2)
3	45 (31-60)	29 (19-41)	17 (11-25)	10 (6.2-15)	5.7 (3.5-8.7)	3.2 (2.0-5.0)	1.8 (1.1-2.8)	1.1 (0.6-1.6)	0.6 (0.4-1.0)	0.4 (0.2-0.6)	0.2 (0.1-0.3)
4	59 (47-74)	40 (30-55)	25 (18-36)	15 (10-22)	8.6 (5.9-13)	4.9 (3.4-7.5)	2.8 (1.9-4.3)	1.6 (1.1-2.5)	0.9 (0.6-1.5)	0.5 (0.4-0.8)	0.3 (0.2-0.5)
5	73 (68-84)	54 (47-67)	35 (30-47)	22 (18-30)	13 (11-18)	7.4 (6.0-10)	4.2 (3.5-6.1)	2.5 (2.0-3.5)	1.4 (1.2-2.1)	0.8 (0.7-1.2)	0.5 (0.4-0.7)
6	86	69	48	31	19	11	6.4	3.7	2.2	1.3	0.7

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

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	9.8	5.8	3.4	2.0	1.1	0.7	0.4	0.3	0.2	0.1
1	24 (17-28)	15 (10-17)	8.7 (6.1-10)	5.2 (3.6-6.2)	3.0 (2.1-3.6)	1.8 (1.2-2.1)	1.1 (0.7-1.3)	0.6 (0.4-0.8)	0.4 (0.3-0.5)	0.2 (0.2-0.3)	0.1 (0.1-0.2)
2	34 (23-42)	21 (14-28)	13 (8.5-17)	7.8 (5.0-10)	4.6 (2.9-6.1)	2.7 (1.7-3.6)	1.6 (1.0-2.2)	1.0 (0.6-1.3)	0.6 (0.4-0.8)	0.4 (0.2-0.5)	0.2 (0.1-0.3)
3	46 (33-59)	30 (21-41)	19 (13-27)	12 (7.6-17)	6.9 (4.4-10)	4.1 (2.6-6.0)	2.5 (1.6-3.6)	1.5 (0.9-2.2)	0.9 (0.6-1.3)	0.5 (0.3-0.8)	0.3 (0.2-0.5)
4	59 (49-73)	42 (32-55)	27 (20-38)	17 (12-24)	10 (7.4-15)	6.1 (4.3-9.0)	3.7 (2.6-5.5)	2.2 (1.6-3.3)	1.3 (1.0-2.0)	0.8 (0.6-1.2)	0.5 (0.3-0.7)
5	73 (67-83)	55 (48-67)	38 (32-49)	24 (20-33)	15 (12-21)	9.0 (7.3-12)	5.5 (4.4-7.7)	3.3 (2.7-4.7)	2.0 (1.6-2.9)	1.2 (1.0-1.7)	0.7 (0.6-1.0)
6	84	69	50	34	21	13	8.1	4.9	3.0	1.8	1.1

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	19	12	7.5	4.6	2.8	1.7	1.1	0.7	0.4	0.3	0.2
1	30 (26-37)	20 (17-24)	12 (11-15)	7.7 (6.5-9.6)	4.7 (4.0-5.9)	2.9 (2.5-3.7)	1.8 (1.5-2.3)	1.2 (1.0-1.5)	0.7 (0.6-0.9)	0.5 (0.4-0.6)	0.3 (0.2-0.4)
2	45 (37-55)	30 (24-39)	20 (16-26)	13 (9.7-17)	7.8 (6.0-11)	4.9 (3.7-6.7)	3.1 (2.3-4.2)	1.9 (1.5-2.7)	1.2 (0.9-1.7)	0.8 (0.6-1.1)	0.5 (0.4-0.7)
3	61 (50-71)	45 (35-55)	31 (23-39)	20 (15-26)	13 (9.1-17)	8.0 (5.7-11)	5.1 (3.6-7.0)	3.2 (2.3-4.5)	2.0 (1.4-2.8)	1.3 (0.9-1.8)	0.8 (0.6-1.1)
4	76 (67-82)	61 (51-69)	45 (35-53)	31 (23-38)	20 (15-25)	13 (9.5-16)	8.4 (6.1-11)	5.4 (3.8-6.8)	3.4 (2.4-4.4)	2.2 (1.5-2.8)	1.4 (1.0-1.7)
5	87 (82-88)	77 (69-80)	62 (53-67)	45 (38-51)	31 (25-35)	21 (17-24)	14 (11-16)	8.8 (6.9-10)	5.6 (4.4-6.6)	3.6 (2.8-4.2)	2.3 (1.8-2.6)
6	91	87	77	62	46	32	22	14	9.2	5.9	3.7

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

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	24	16	11	6.8	4.4	2.9	1.9	1.2	0.8	0.5	0.4
1	40 (32-67)	29 (22-52)	20 (15-38)	13 (9.6-26)	8.6 (6.2-18)	5.7 (4.1-12)	3.8 (2.7-8.0)	2.5 (1.8-5.3)	1.7 (1.2-3.5)	1.1 (0.8-2.3)	0.7 (0.5-1.5)
2	58 (42-81)	45 (30-70)	33 (20-56)	23 (13-42)	16 (8.7-29)	11 (5.8-20)	7.2 (3.8-14)	4.8 (2.5-9.5)	3.2 (1.7-6.3)	2.1 (1.1-4.2)	1.4 (0.7-2.8)
3	73 (56-87)	62 (41-81)	50 (29-70)	37 (20-56)	26 (13-42)	19 (8.6-31)	13 (5.8-22)	8.7 (3.8-15)	5.8 (2.5-10)	3.9 (1.7-6.9)	2.5 (1.1-4.6)
4	84 (70-90)	77 (57-86)	67 (42-80)	54 (30-69)	41 (20-55)	30 (14-42)	22 (9.4-31)	15 (6.3-22)	10 (4.2-15)	6.9 (2.8-10)	4.6 (1.8-6.9)
5	89 (81-92)	86 (72-90)	81 (59-85)	71 (45-78)	59 (33-66)	46 (23-53)	35 (16-41)	25 (11-30)	17 (7.4-21)	12 (4.9-14)	8.0 (3.3-9.7)
6	91	91	89	84	76	64	51	39	28	20	13

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	9.1	6.2	4.3	3.0	2.1	1.4	1.0	0.7
1	43 (34-70)	33 (25-58)	24 (17-45)	17 (12-33)	12 (8.1-24)	8.4 (5.7-17)	5.9 (4.0-12)	4.1 (2.7-8.8)	2.8 (1.9-6.1)	2.0 (1.3-4.2)	1.4 (0.9-2.9)
2	59 (44-80)	48 (33-72)	38 (23-61)	28 (16-49)	21 (11-38)	15 (8.0-28)	11 (5.6-21)	7.6 (3.9-15)	5.3 (2.7-11)	3.7 (1.8-7.5)	2.6 (1.3-5.2)
3	73 (57-86)	64 (45-81)	53 (33-73)	43 (24-62)	33 (17-50)	25 (12-40)	18 (8.4-30)	13 (5.8-23)	9.4 (4.0-16)	6.6 (2.8-12)	4.6 (1.9-8.3)
4	82 (69-89)	76 (58-86)	68 (46-80)	59 (34-72)	48 (25-63)	38 (18-52)	29 (13-42)	22 (9.3-32)	16 (6.5-24)	11 (4.6-17)	8.0 (3.2-12)
5	87 (78-90)	84 (71-88)	80 (61-85)	73 (49-79)	64 (38-72)	54 (29-63)	44 (21-52)	34 (16-41)	25 (11-31)	19 (7.9-23)	13 (5.5-17)
6	89	89	87	83	78	70	60	49	39	29	22

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

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	19	14	10	7.4	5.4	4.0	2.9	2.1	1.5	1.1
1	41 (32-66)	32 (24-56)	24 (18-46)	18 (13-36)	14 (9.6-28)	10 (7.1-21)	7.6 (5.2-16)	5.6 (3.8-12)	4.1 (2.8-8.8)	3.0 (2.0-6.5)	2.2 (1.5-4.7)
2	56 (42-76)	47 (32-69)	38 (24-60)	30 (18-50)	23 (13-41)	18 (9.9-33)	14 (7.3-26)	10 (5.4-20)	7.5 (3.9-15)	5.5 (2.8-11)	4.1 (2.1-8.1)
3	69 (53-82)	61 (43-78)	52 (34-71)	44 (26-62)	36 (19-53)	29 (15-44)	22 (11-36)	17 (8.0-28)	13 (5.9-22)	9.7 (4.3-16)	7.2 (3.1-12)
4	78 (65-86)	73 (55-83)	66 (45-78)	58 (36-71)	50 (28-64)	42 (22-55)	34 (16-47)	27 (12-38)	21 (9.2-30)	16 (6.8-24)	12 (5.0-18)
5	84 (74-87)	81 (67-85)	77 (58-82)	72 (49-77)	65 (40-72)	57 (32-65)	49 (25-57)	41 (20-48)	33 (15-39)	26 (11-31)	20 (8.3-24)
6	86	86	84	81	77	71	64	56	47	38	30

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	20	15	12	8.9	6.9	5.4	4.1	3.2	2.5	1.9	1.4
1	32 (25-56)	26 (20-48)	20 (15-39)	16 (12-32)	13 (9.0-26)	10 (7.0-21)	7.9 (5.4-17)	6.1 (4.2-13)	4.7 (3.2-10)	3.7 (2.5-7.9)	2.8 (1.9-6.1)
2	46 (33-67)	39 (26-60)	32 (20-52)	26 (16-45)	21 (12-38)	17 (9.8-31)	14 (7.6-26)	11 (5.9-21)	8.5 (4.5-16)	6.6 (3.5-13)	5.1 (2.7-10)
3	60 (42-75)	53 (35-70)	46 (28-64)	39 (22-56)	33 (18-49)	27 (14-42)	22 (11-35)	18 (8.8-29)	14 (6.8-24)	11 (5.3-19)	8.9 (4.1-15)
4	71 (54-80)	65 (46-77)	59 (38-72)	53 (31-66)	46 (26-59)	40 (21-52)	34 (16-45)	28 (13-38)	23 (10-32)	19 (8.0-26)	15 (6.2-21)
5	79 (64-83)	75 (57-80)	71 (50-77)	66 (42-72)	60 (36-67)	54 (30-61)	48 (25-55)	41 (20-48)	35 (16-41)	29 (13-34)	23 (10-28)
6	82	82	80	77	73	68	62	56	49	42	35