Romania - 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 Romania. 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	12	6.1	3.2	1.6	0.8	0.4	0.2	0.1	0.1	0.0	0.0
1	18 (12-23)	9.7 (6.4-13)	5.1 (3.3-6.6)	2.6 (1.7-3.4)	1.3 (0.9-1.8)	0.7 (0.4-0.9)	0.4 (0.2-0.5)	0.2 (0.1-0.2)	0.1 (0.1-0.1)	0.1 (0.0-0.1)	0.0 (0.0-0.0)
2	27 (17-39)	15 (9.0-22)	8.0 (4.7-12)	4.2 (2.4-6.4)	2.2 (1.2-3.3)	1.1 (0.6-1.7)	0.6 (0.3-0.9)	0.3 (0.2-0.5)	0.2 (0.1-0.2)	0.1 (0.1-0.1)	0.0 (0.0-0.1)
3	39 (25-57)	23 (13-35)	12 (7.1-20)	6.6 (3.7-11)	3.4 (1.9-5.6)	1.7 (1.0-2.9)	0.9 (0.5-1.5)	0.5 (0.3-0.8)	0.2 (0.1-0.4)	0.1 (0.1-0.2)	0.1 (0.0-0.1)
4	54 (38-72)	33 (22-48)	19 (12-29)	10 (6.3-16)	5.3 (3.2-8.4)	2.7 (1.7-4.4)	1.4 (0.9-2.3)	0.7 (0.4-1.2)	0.4 (0.2-0.6)	0.2 (0.1-0.3)	0.1 (0.1-0.2)
5	69 (59-82)	47 (37-60)	28 (21-38)	15 (11-22)	8.2 (6.0-12)	4.3 (3.1-6.2)	2.2 (1.6-3.2)	1.1 (0.8-1.7)	0.6 (0.4-0.9)	0.3 (0.2-0.5)	0.2 (0.1-0.3)
6	84	62	40	23	12	6.5	3.4	1.8	0.9	0.5	0.3

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

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	12	6.4	3.5	1.9	1.0	0.5	0.3	0.2	0.1	0.1	0.0
1	18 (12-22)	10 (6.7-12)	5.5 (3.7-6.8)	3.0 (2.0-3.7)	1.6 (1.1-2.0)	0.9 (0.6-1.1)	0.5 (0.3-0.6)	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	26 (17-36)	15 (9.4-22)	8.5 (5.2-12)	4.7 (2.8-6.8)	2.5 (1.5-3.7)	1.4 (0.8-2.0)	0.7 (0.4-1.1)	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	38 (25-53)	23 (14-34)	13 (7.8-20)	7.2 (4.3-11)	4.0 (2.3-6.3)	2.1 (1.2-3.4)	1.2 (0.7-1.9)	0.6 (0.4-1.0)	0.4 (0.2-0.6)	0.2 (0.1-0.3)	0.1 (0.1-0.2)
4	51 (38-68)	33 (23-47)	19 (13-29)	11 (7.2-17)	6.1 (3.9-9.4)	3.3 (2.1-5.2)	1.8 (1.2-2.8)	1.0 (0.6-1.6)	0.6 (0.4-0.9)	0.3 (0.2-0.5)	0.2 (0.1-0.3)
5	66 (58-79)	46 (38-59)	28 (23-38)	16 (13-23)	9.2 (7.2-13)	5.1 (4.0-7.3)	2.8 (2.1-4.0)	1.5 (1.2-2.2)	0.9 (0.7-1.2)	0.5 (0.4-0.7)	0.3 (0.2-0.4)
6	80	60	40	24	14	7.6	4.2	2.3	1.3	0.7	0.4

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	12	6.7	3.8	2.1	1.2	0.7	0.4	0.2	0.1	0.1	0.0
1	18 (12-20)	10 (7.0-12)	5.8 (4.0-6.9)	3.3 (2.2-3.9)	1.9 (1.3-2.2)	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)	0.1 (0.0-0.1)
2	26 (17-34)	15 (9.8-21)	8.9 (5.6-12)	5.1 (3.2-7.0)	2.9 (1.8-4.0)	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)	0.1 (0.1-0.1)
3	36 (25-50)	23 (15-32)	13 (8.4-20)	7.7 (4.8-12)	4.4 (2.7-6.7)	2.5 (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)	0.2 (0.1-0.2)
4	49 (38-64)	32 (24-44)	20 (14-28)	12 (8.0-17)	6.6 (4.6-10)	3.8 (2.6-5.7)	2.1 (1.5-3.3)	1.2 (0.9-1.9)	0.7 (0.5-1.1)	0.4 (0.3-0.6)	0.2 (0.2-0.4)
5	63 (57-75)	44 (38-56)	28 (24-38)	17 (14-23)	9.9 (8.2-14)	5.7 (4.6-8.0)	3.2 (2.7-4.6)	1.9 (1.5-2.7)	1.1 (0.9-1.6)	0.6 (0.5-0.9)	0.4 (0.3-0.5)
6	76	58	39	24	15	8.4	4.9	2.8	1.7	1.0	0.6

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

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	12	7.0	4.1	2.4	1.4	0.8	0.5	0.3	0.2	0.1	0.1
1	17 (12-20)	10 (7.3-12)	6.2 (4.3-7.4)	3.7 (2.5-4.4)	2.1 (1.5-2.6)	1.2 (0.9-1.5)	0.8 (0.5-0.9)	0.5 (0.3-0.5)	0.3 (0.2-0.3)	0.2 (0.1-0.2)	0.1 (0.1-0.1)
2	25 (17-31)	15 (10-20)	9.3 (6.1-12)	5.5 (3.6-7.2)	3.3 (2.1-4.3)	1.9 (1.2-2.5)	1.1 (0.7-1.5)	0.7 (0.4-0.9)	0.4 (0.3-0.6)	0.3 (0.2-0.3)	0.1 (0.1-0.2)
3	35 (25-46)	22 (15-30)	14 (9.1-19)	8.2 (5.4-12)	4.9 (3.2-7.1)	2.9 (1.9-4.2)	1.7 (1.1-2.5)	1.0 (0.7-1.5)	0.6 (0.4-0.9)	0.4 (0.2-0.6)	0.2 (0.2-0.3)
4	46 (37-59)	31 (24-42)	20 (15-28)	12 (8.9-17)	7.2 (5.3-11)	4.3 (3.1-6.3)	2.6 (1.9-3.8)	1.6 (1.1-2.3)	1.0 (0.7-1.4)	0.6 (0.4-0.9)	0.3 (0.2-0.5)
5	59 (54-70)	42 (37-53)	28 (24-37)	17 (15-24)	11 (8.8-15)	6.3 (5.2-8.8)	3.9 (3.2-5.4)	2.3 (1.9-3.3)	1.4 (1.2-2.0)	0.9 (0.7-1.2)	0.5 (0.4-0.7)
6	72	55	38	25	15	9.2	5.7	3.5	2.1	1.3	0.8

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	12	7.2	4.4	2.7	1.6	1.0	0.6	0.4	0.3	0.2	0.1
1	18 (16-23)	12 (10-15)	7.3 (6.2-9.2)	4.5 (3.8-5.7)	2.7 (2.3-3.5)	1.7 (1.4-2.2)	1.1 (0.9-1.4)	0.7 (0.6-0.9)	0.4 (0.4-0.5)	0.3 (0.2-0.3)	0.2 (0.1-0.2)
2	29 (23-37)	19 (15-25)	12 (9.3-16)	7.4 (5.8-10)	4.6 (3.5-6.2)	2.8 (2.2-3.9)	1.8 (1.4-2.5)	1.1 (0.9-1.6)	0.7 (0.5-1.0)	0.4 (0.3-0.6)	0.3 (0.2-0.4)
3	42 (33-50)	29 (22-36)	19 (14-24)	12 (8.8-16)	7.5 (5.4-9.9)	4.7 (3.4-6.3)	3.0 (2.1-4.0)	1.9 (1.3-2.5)	1.2 (0.8-1.6)	0.7 (0.5-1.0)	0.5 (0.3-0.6)
4	57 (47-64)	42 (33-49)	29 (22-34)	19 (14-23)	12 (8.8-15)	7.6 (5.5-9.5)	4.9 (3.5-6.1)	3.1 (2.2-3.9)	2.0 (1.4-2.5)	1.2 (0.9-1.6)	0.8 (0.6-1.0)
5	72 (64-75)	57 (49-62)	42 (35-46)	29 (23-33)	19 (15-22)	12 (9.6-14)	8.0 (6.2-9.2)	5.1 (4.0-5.9)	3.3 (2.5-3.8)	2.1 (1.6-2.4)	1.3 (1.0-1.5)
6	82	72	57	42	29	19	13	8.3	5.3	3.4	2.2

FRAX® WHO Fracture Risk Assessment Tool

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

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	11	7.2	4.6	3.0	1.9	1.3	0.8	0.5	0.4	0.2	0.2
1	20 (15-39)	14 (10-27)	9.0 (6.5-19)	5.8 (4.2-12)	3.8 (2.7-8.0)	2.5 (1.8-5.3)	1.7 (1.2-3.6)	1.1 (0.8-2.4)	0.7 (0.5-1.6)	0.5 (0.3-1.0)	0.3 (0.2-0.7)
2	33 (21-54)	23 (14-41)	16 (9.2-29)	11 (5.9-20)	7.0 (3.8-14)	4.7 (2.5-9.2)	3.1 (1.7-6.2)	2.1 (1.1-4.1)	1.4 (0.7-2.7)	0.9 (0.5-1.8)	0.6 (0.3-1.2)
3	48 (30-66)	36 (20-53)	26 (14-40)	18 (8.9-29)	12 (5.8-20)	8.4 (3.8-14)	5.6 (2.5-9.6)	3.8 (1.7-6.5)	2.5 (1.1-4.3)	1.7 (0.7-2.9)	1.1 (0.5-1.9)
4	63 (41-75)	52 (30-64)	40 (21-52)	29 (14-40)	20 (9.0-28)	14 (6.1-20)	9.8 (4.1-14)	6.6 (2.7-9.7)	4.4 (1.8-6.5)	3.0 (1.2-4.4)	2.0 (0.8-2.9)
5	76 (55-81)	67 (43-73)	56 (31-62)	44 (22-50)	32 (15-37)	23 (10-27)	16 (6.9-19)	11 (4.6-13)	7.6 (3.1-9.2)	5.1 (2.1-6.2)	3.4 (1.4-4.2)
6	84	79	71	60	47	36	26	18	13	8.7	5.9

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	9.8	6.7	4.6	3.1	2.1	1.5	1.0	0.7	0.5	0.3	0.2
1	17 (13-34)	12 (8.7-25)	8.6 (6.0-18)	5.9 (4.0-13)	4.1 (2.8-8.8)	2.8 (1.9-6.2)	2.0 (1.3-4.4)	1.4 (0.9-3.1)	1.0 (0.6-2.1)	0.7 (0.5-1.5)	0.5 (0.3-1.0)
2	28 (17-47)	21 (12-36)	15 (8.3-27)	10 (5.7-20)	7.3 (3.9-14)	5.2 (2.7-10)	3.7 (1.9-7.2)	2.6 (1.3-5.1)	1.8 (0.9-3.6)	1.3 (0.6-2.5)	0.9 (0.4-1.8)
3	41 (24-58)	32 (17-48)	24 (12-37)	17 (8.4-28)	12 (5.9-20)	8.9 (4.1-15)	6.4 (2.9-11)	4.5 (2.0-7.7)	3.2 (1.4-5.4)	2.2 (1.0-3.8)	1.6 (0.7-2.7)
4	54 (33-67)	45 (25-57)	35 (18-47)	27 (12-36)	20 (8.8-28)	15 (6.2-21)	11 (4.4-15)	7.6 (3.1-11)	5.4 (2.2-8.1)	3.8 (1.5-5.7)	2.7 (1.1-4.1)
5	67 (44-73)	58 (34-65)	49 (26-55)	39 (19-45)	30 (14-36)	23 (9.9-28)	17 (7.1-21)	12 (5.1-15)	9.0 (3.6-11)	6.4 (2.5-8.0)	4.5 (1.8-5.7)
6	77	70	62	53	43	34	26	20	14	10	7.4

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

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	7.3	5.2	3.7	2.7	2.0	1.4	1.1	0.8	0.6	0.4	0.3
1	13 (9.4-27)	9.6 (6.8-20)	7.0 (4.9-15)	5.0 (3.5-11)	3.7 (2.6-8.2)	2.8 (1.9-6.1)	2.0 (1.4-4.5)	1.5 (1.0-3.3)	1.1 (0.8-2.5)	0.8 (0.6-1.8)	0.6 (0.4-1.3)
2	21 (13-37)	16 (9.5-29)	12 (6.9-22)	8.8 (4.9-17)	6.6 (3.6-13)	5.0 (2.7-9.6)	3.7 (2.0-7.2)	2.7 (1.5-5.4)	2.0 (1.1-4.0)	1.5 (0.8-3.0)	1.1 (0.6-2.2)
3	32 (18-47)	25 (13-39)	19 (9.6-31)	15 (7.0-24)	11 (5.2-18)	8.4 (3.9-14)	6.3 (2.9-11)	4.7 (2.1-8.0)	3.5 (1.6-6.0)	2.6 (1.2-4.5)	1.9 (0.9-3.3)
4	44 (25-56)	36 (19-48)	29 (14-39)	23 (10-31)	18 (7.8-24)	14 (5.8-19)	10 (4.4-15)	7.9 (3.2-11)	5.9 (2.4-8.5)	4.4 (1.8-6.4)	3.3 (1.3-4.8)
5	57 (34-63)	49 (27-55)	41 (20-47)	33 (15-39)	27 (12-31)	21 (8.9-25)	16 (6.8-20)	13 (5.1-15)	9.6 (3.8-12)	7.2 (2.8-8.9)	5.4 (2.1-6.7)
6	68	62	54	45	38	31	25	20	15	12	8.7

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	4.1	3.1	2.3	1.8	1.4	1.1	0.8	0.6	0.5	0.4	0.3
1	7.6 (5.4-16)	5.8 (4.1-13)	4.4 (3.0-9.6)	3.3 (2.3-7.4)	2.6 (1.8-5.8)	2.0 (1.4-4.5)	1.6 (1.1-3.5)	1.2 (0.8-2.7)	0.9 (0.6-2.1)	0.7 (0.5-1.6)	0.6 (0.4-1.3)
2	13 (7.5-23)	10 (5.7-18)	7.7 (4.3-14)	5.9 (3.3-11)	4.7 (2.5-8.9)	3.6 (2.0-7.0)	2.9 (1.5-5.5)	2.2 (1.2-4.3)	1.7 (0.9-3.4)	1.3 (0.7-2.6)	1.0 (0.5-2.1)
3	20 (10-32)	16 (7.9-26)	13 (6.0-21)	9.9 (4.6-16)	7.9 (3.6-13)	6.2 (2.8-10)	4.9 (2.2-8.3)	3.8 (1.7-6.5)	3.0 (1.3-5.1)	2.3 (1.0-4.0)	1.8 (0.8-3.1)
4	30 (15-41)	25 (12-34)	20 (9.0-27)	16 (6.9-22)	13 (5.4-18)	10 (4.3-14)	8.1 (3.3-11)	6.4 (2.6-9.1)	5.0 (2.0-7.2)	3.9 (1.6-5.7)	3.1 (1.2-4.4)
5	42 (21-48)	35 (17-41)	29 (13-34)	24 (10-28)	20 (8.2-23)	16 (6.5-19)	13 (5.1-16)	10 (4.1-12)	8.1 (3.2-10)	6.4 (2.5-7.9)	5.0 (1.9-6.2)
6	54	48	41	34	29	24	20	16	13	10	8.1