Kazakhstan - The probabilities of a hip fracture in men

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 Kazakhstan. 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	28	16	8.8	4.7	2.5	1.3	0.7	0.4	0.2	0.1	0.1
1	40 (29-50)	24 (17-31)	14 (9.3-18)	7.5 (5.0-9.9)	4.0 (2.6-5.3)	2.1 (1.4-2.8)	1.1 (0.7-1.5)	0.6 (0.4-0.8)	0.3 (0.2-0.4)	0.2 (0.1-0.2)	0.1 (0.1-0.1)
2	54 (39-68)	35 (23-48)	21 (13-30)	12 (7.0-17)	6.3 (3.7-9.4)	3.3 (2.0-5.1)	1.8 (1.0-2.7)	0.9 (0.6-1.4)	0.5 (0.3-0.8)	0.3 (0.2-0.4)	0.1 (0.1-0.2)
3	67 (52-79)	47 (33-62)	30 (19-43)	17 (10-26)	9.6 (5.7-15)	5.2 (3.0-8.2)	2.8 (1.6-4.4)	1.5 (0.8-2.4)	0.8 (0.4-1.3)	0.4 (0.2-0.7)	0.2 (0.1-0.4)
4	78 (67-86)	61 (47-74)	41 (29-56)	25 (17-36)	14 (9.2-22)	8.0 (5.0-12)	4.3 (2.7-6.7)	2.3 (1.4-3.6)	1.2 (0.8-1.9)	0.7 (0.4-1.1)	0.4 (0.2-0.6)
5	85 (80-89)	73 (64-82)	55 (45-67)	36 (28-47)	21 (16-29)	12 (8.7-17)	6.5 (4.7-9.3)	3.5 (2.5-5.0)	1.9 (1.4-2.7)	1.0 (0.7-1.5)	0.6 (0.4-0.8)
6	89	82	68	48	30	18	9.8	5.3	2.9	1.6	0.9

Ten years probability of hip fractures (%) according to BMD, the number of clinical risk factors (CRF) and age in men from Kazakhstan.

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	26	15	8.6	4.8	2.7	1.5	0.8	0.4	0.3	0.1	0.1
1	36 (27-43)	22 (16-27)	13 (9.0-16)	7.4 (5.1-9.3)	4.1 (2.8-5.2)	2.3 (1.5-2.9)	1.3 (0.8-1.6)	0.7 (0.5-0.9)	0.4 (0.3-0.5)	0.2 (0.2-0.3)	0.1 (0.1-0.2)
2	48 (35-60)	32 (22-42)	19 (13-26)	11 (7.1-16)	6.3 (4.0-9.0)	3.5 (2.2-5.1)	1.9 (1.2-2.8)	1.1 (0.7-1.6)	0.6 (0.4-0.9)	0.3 (0.2-0.5)	0.2 (0.1-0.3)
3	60 (48-72)	43 (31-55)	27 (18-38)	17 (11-24)	9.5 (6.0-14)	5.4 (3.3-8.0)	3.0 (1.8-4.5)	1.6 (1.0-2.5)	0.9 (0.6-1.4)	0.5 (0.3-0.8)	0.3 (0.2-0.5)
4	71 (62-80)	55 (44-67)	38 (28-50)	24 (17-33)	14 (9.6-20)	8.1 (5.4-12)	4.5 (3.0-6.8)	2.5 (1.6-3.8)	1.4 (0.9-2.2)	0.8 (0.5-1.2)	0.5 (0.3-0.7)
5	80 (74-84)	67 (59-75)	50 (42-60)	33 (27-43)	20 (16-27)	12 (9.2-16)	6.7 (5.2-9.5)	3.8 (2.9-5.3)	2.1 (1.6-3.1)	1.2 (0.9-1.7)	0.7 (0.5-1.0)
6	85	76	62	44	29	17	9.9	5.6	3.2	1.8	1.0

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	21	13	7.7	4.6	2.7	1.6	0.9	0.5	0.3	0.2	0.1
1	29 (21-33)	18 (13-22)	11 (8.1-13)	6.8 (4.8-8.2)	4.1 (2.8-4.9)	2.4 (1.7-2.9)	1.4 (1.0-1.7)	0.8 (0.6-1.0)	0.5 (0.3-0.6)	0.3 (0.2-0.4)	0.2 (0.1-0.2)
2	38 (29-47)	26 (18-33)	16 (11-22)	10 (6.8-13)	6.1 (4.0-8.2)	3.6 (2.4-4.9)	2.1 (1.4-2.9)	1.2 (0.8-1.7)	0.7 (0.5-1.0)	0.5 (0.3-0.6)	0.3 (0.2-0.4)
3	49 (39-59)	35 (26-44)	23 (17-30)	15 (10-20)	8.9 (6.0-12)	5.3 (3.6-7.4)	3.2 (2.1-4.4)	1.9 (1.2-2.6)	1.1 (0.7-1.6)	0.7 (0.4-1.0)	0.4 (0.3-0.6)
4	59 (51-69)	45 (36-55)	31 (24-40)	20 (15-28)	13 (9.3-18)	7.8 (5.6-11)	4.7 (3.3-6.7)	2.8 (2.0-4.0)	1.7 (1.2-2.4)	1.0 (0.7-1.5)	0.6 (0.4-0.9)
5	69 (63-75)	55 (49-64)	41 (35-50)	28 (24-36)	18 (15-24)	11 (9.2-15)	6.8 (5.5-9.3)	4.1 (3.3-5.6)	2.5 (2.0-3.5)	1.5 (1.2-2.1)	0.9 (0.7-1.3)
6	76	65	51	37	25	16	9.8	5.9	3.6	2.2	1.4

Ten years probability of hip fractures (%) according to BMD, the number of clinical risk factors (CRF) and age in men from Kazakhstan.

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	6.8	4.3	2.7	1.7	1.0	0.7	0.4	0.3	0.2
1	22 (17-25)	15 (11-17)	9.7 (7.1-11)	6.2 (4.5-7.1)	3.9 (2.8-4.5)	2.5 (1.8-2.8)	1.5 (1.1-1.7)	1.0 (0.7-1.1)	0.6 (0.4-0.7)	0.4 (0.3-0.5)	0.3 (0.2-0.3)
2	30 (23-36)	21 (15-25)	14 (9.9-17)	8.9 (6.3-11)	5.7 (4.0-7.2)	3.6 (2.5-4.6)	2.2 (1.6-2.9)	1.4 (1.0-1.8)	0.9 (0.6-1.2)	0.6 (0.4-0.8)	0.4 (0.3-0.5)
3	38 (31-47)	27 (21-35)	19 (14-24)	12 (9.2-16)	8.1 (5.9-11)	5.1 (3.7-6.9)	3.3 (2.4-4.4)	2.1 (1.5-2.8)	1.3 (1.0-1.8)	0.9 (0.6-1.2)	0.6 (0.4-0.7)
4	47 (41-56)	35 (30-44)	25 (20-32)	17 (14-22)	11 (8.8-15)	7.3 (5.6-9.8)	4.7 (3.6-6.3)	3.0 (2.3-4.1)	1.9 (1.5-2.7)	1.2 (0.9-1.7)	0.8 (0.6-1.1)
5	56 (51-62)	44 (40-52)	33 (29-40)	23 (20-29)	16 (14-20)	10 (8.8-14)	6.6 (5.7-8.8)	4.2 (3.6-5.7)	2.8 (2.4-3.8)	1.8 (1.5-2.4)	1.2 (1.0-1.6)
6	64	53	41	30	21	14	9.2	6.0	3.9	2.6	1.7

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	8.6	5.8	3.9	2.6	1.7	1.1	0.8	0.5	0.4	0.2
1	19 (17-24)	13 (12-17)	9.0 (8.0-12)	6.1 (5.4-8.1)	4.1 (3.7-5.4)	2.7 (2.4-3.6)	1.8 (1.6-2.4)	1.2 (1.1-1.6)	0.8 (0.7-1.1)	0.6 (0.5-0.8)	0.4 (0.3-0.5)
2	27 (22-33)	19 (16-24)	14 (11-17)	9.4 (7.6-12)	6.4 (5.1-8.3)	4.3 (3.5-5.7)	2.9 (2.3-3.8)	2.0 (1.6-2.6)	1.3 (1.1-1.8)	0.9 (0.7-1.2)	0.6 (0.5-0.8)
3	36 (29-43)	27 (22-33)	20 (16-25)	14 (11-18)	9.9 (7.6-12)	6.7 (5.2-8.6)	4.6 (3.5-5.8)	3.1 (2.4-4.0)	2.1 (1.6-2.8)	1.5 (1.1-1.9)	1.0 (0.8-1.3)
4	47 (39-53)	37 (30-43)	28 (22-34)	21 (16-25)	15 (11-18)	10 (7.8-13)	7.0 (5.3-8.6)	4.9 (3.6-6.0)	3.4 (2.5-4.2)	2.3 (1.7-2.9)	1.6 (1.2-2.0)
5	57 (49-61)	48 (40-52)	38 (31-42)	29 (23-32)	21 (16-24)	15 (12-17)	11 (8.0-12)	7.5 (5.6-8.3)	5.2 (3.9-5.8)	3.6 (2.7-4.0)	2.5 (1.9-2.8)
6	66	58	48	39	30	22	16	11	8.0	5.6	3.9

Ten years probability of hip fractures (%) according to BMD, the number of clinical risk factors (CRF) and age in men from Kazakhstan.

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	10	7.4	5.3	3.8	2.7	1.9	1.3	0.9	0.7	0.5	0.4
1	17 (13-33)	13 (9.6-26)	9.6 (7.0-20)	6.9 (5.0-15)	5.0 (3.6-11)	3.5 (2.6-7.8)	2.5 (1.8-5.6)	1.8 (1.3-4.0)	1.3 (1.0-2.9)	1.0 (0.7-2.1)	0.7 (0.5-1.5)
2	26 (18-43)	21 (13-35)	16 (9.7-28)	12 (7.0-21)	8.6 (5.0-16)	6.2 (3.6-11)	4.5 (2.6-8.3)	3.3 (1.9-6.1)	2.4 (1.4-4.5)	1.7 (1.0-3.3)	1.3 (0.7-2.4)
3	37 (23-52)	30 (18-43)	24 (13-36)	18 (9.7-28)	14 (7.1-22)	10 (5.1-16)	7.5 (3.6-12)	5.6 (2.6-9.0)	4.1 (1.9-6.7)	3.0 (1.4-4.9)	2.2 (1.0-3.6)
4	48 (30-59)	41 (23-52)	34 (18-44)	27 (13-36)	21 (9.9-28)	16 (7.3-22)	12 (5.2-16)	9.0 (3.9-12)	6.8 (2.8-9.3)	5.0 (2.1-6.9)	3.7 (1.5-5.1)
5	59 (39-66)	52 (31-59)	45 (25-52)	38 (19-44)	30 (14-36)	24 (11-28)	18 (7.8-22)	14 (5.8-17)	11 (4.3-13)	8.0 (3.2-9.6)	6.0 (2.3-7.1)
6	69	63	57	49	41	34	27	21	16	12	9.4

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	9.5	7.2	5.4	4.0	3.0	2.2	1.7	1.3	1.0	0.7	0.6
1	16 (12-31)	12 (9.2-25)	9.6 (7.0-20)	7.3 (5.3-16)	5.5 (3.9-12)	4.1 (2.9-9.2)	3.1 (2.2-6.9)	2.4 (1.7-5.4)	1.8 (1.3-4.1)	1.4 (1.0-3.2)	1.1 (0.7-2.4)
2	24 (15-41)	19 (12-34)	15 (9.0-28)	12 (6.9-22)	9.3 (5.2-17)	7.1 (3.9-13)	5.4 (2.9-10)	4.2 (2.3-8.0)	3.2 (1.7-6.2)	2.5 (1.3-4.7)	1.9 (1.0-3.6)
3	34 (20-49)	28 (16-42)	23 (12-35)	19 (9.5-29)	15 (7.2-23)	11 (5.5-19)	8.8 (4.1-15)	6.9 (3.2-12)	5.4 (2.4-9.1)	4.2 (1.9-7.1)	3.2 (1.4-5.5)
4	45 (26-56)	38 (21-50)	32 (17-43)	27 (13-36)	22 (10-30)	17 (7.7-24)	14 (5.9-20)	11 (4.6-16)	8.6 (3.5-12)	6.8 (2.7-9.8)	5.3 (2.1-7.6)
5	55 (34-62)	49 (28-56)	43 (23-49)	37 (18-43)	31 (14-36)	25 (11-30)	20 (8.7-24)	17 (6.8-20)	13 (5.3-16)	11 (4.1-13)	8.3 (3.2-9.9)
6	65	60	54	48	41	35	29	24	20	16	13

Ten years probability of hip fractures (%) according to BMD, the number of clinical risk factors (CRF) and age in men from Kazakhstan.

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	9.0	7.1	5.7	4.5	3.5	2.7	2.2	1.7	1.4	1.1	0.9
1	15 (11-30)	12 (9.0-25)	9.9 (7.2-21)	7.9 (5.7-17)	6.3 (4.5-14)	5.0 (3.6-11)	4.0 (2.8-8.9)	3.2 (2.3-7.2)	2.6 (1.8-5.9)	2.1 (1.5-4.7)	1.7 (1.2-3.8)
2	23 (14-39)	19 (11-33)	16 (9.2-28)	13 (7.4-24)	10 (5.9-19)	8.4 (4.6-16)	6.8 (3.7-13)	5.6 (3.0-11)	4.5 (2.4-8.7)	3.7 (2.0-7.1)	3.0 (1.6-5.7)
3	32 (19-47)	28 (15-41)	23 (12-36)	20 (10-30)	16 (8.1-26)	13 (6.5-21)	11 (5.2-18)	9.0 (4.2-15)	7.4 (3.4-12)	6.1 (2.8-10)	4.9 (2.2-8.3)
4	43 (24-54)	38 (20-49)	33 (17-43)	28 (14-38)	24 (11-33)	20 (8.9-28)	17 (7.2-23)	14 (5.9-20)	12 (4.8-17)	9.6 (3.9-14)	7.9 (3.2-11)
5	53 (33-60)	48 (28-55)	43 (23-50)	38 (19-44)	33 (16-39)	28 (13-33)	24 (11-29)	21 (8.7-24)	17 (7.2-21)	15 (5.9-17)	12 (4.8-15)
6	63	59	54	49	43	38	33	29	25	21	18

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	8.9	7.4	6.1	5.0	4.1	3.4	2.9	2.4	2.0	1.7	1.4
1	15 (11-29)	13 (9.2-26)	11 (7.7-22)	8.9 (6.4-19)	7.4 (5.3-16)	6.2 (4.4-13)	5.2 (3.7-11)	4.4 (3.1-9.8)	3.7 (2.7-8.3)	3.2 (2.2-7.1)	2.7 (1.9-6.0)
2	23 (14-38)	19 (12-34)	17 (9.9-30)	14 (8.2-26)	12 (6.9-22)	10 (5.7-19)	8.7 (4.8-16)	7.5 (4.1-14)	6.4 (3.5-12)	5.5 (2.9-10)	4.6 (2.5-8.9)
3	32 (18-46)	28 (16-42)	25 (13-37)	21 (11-33)	19 (9.4-29)	16 (7.9-25)	14 (6.7-22)	12 (5.7-19)	10 (4.9-17)	8.9 (4.1-15)	7.6 (3.5-13)
4	42 (24-54)	38 (21-49)	34 (18-45)	30 (15-40)	27 (13-36)	23 (11-32)	20 (9.2-28)	18 (7.9-25)	16 (6.8-22)	14 (5.8-19)	12 (4.9-17)
5	53 (32-59)	49 (28-55)	45 (25-51)	40 (21-47)	36 (18-42)	32 (15-38)	29 (13-34)	26 (12-31)	23 (10.0-27)	20 (8.6-24)	18 (7.3-21)
6	63	59	55	51	47	43	39	35	32	28	25