Kazakhstan - 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 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	23	12	6.5	3.4	1.7	0.9	0.5	0.2	0.1	0.1	0.0
1	34 (24-42)	19 (13-25)	10 (6.8-13)	5.4 (3.5-7.1)	2.8 (1.8-3.7)	1.4 (0.9-1.9)	0.7 (0.5-1.0)	0.4 (0.3-0.5)	0.2 (0.1-0.3)	0.1 (0.1-0.1)	0.1 (0.0-0.1)
2	48 (32-64)	29 (18-41)	16 (9.6-24)	8.5 (5.0-13)	4.4 (2.6-6.8)	2.3 (1.3-3.5)	1.2 (0.7-1.8)	0.6 (0.4-0.9)	0.3 (0.2-0.5)	0.2 (0.1-0.3)	0.1 (0.1-0.1)
3	63 (44-81)	41 (26-59)	24 (14-37)	13 (7.5-21)	7.0 (3.9-11)	3.6 (2.0-6.0)	1.9 (1.0-3.1)	1.0 (0.5-1.6)	0.5 (0.3-0.9)	0.3 (0.2-0.5)	0.1 (0.1-0.2)
4	78 (63-91)	56 (40-74)	35 (23-50)	20 (13-30)	11 (6.7-17)	5.7 (3.5-9.0)	2.9 (1.8-4.7)	1.5 (0.9-2.5)	0.8 (0.5-1.3)	0.4 (0.3-0.7)	0.2 (0.1-0.4)
5	89 (83-95)	72 (61-84)	49 (39-63)	29 (22-40)	16 (12-23)	8.7 (6.4-13)	4.5 (3.3-6.6)	2.4 (1.7-3.5)	1.3 (0.9-1.9)	0.7 (0.5-1.0)	0.4 (0.3-0.5)
6	95	85	64	42	24	13	6.9	3.7	2.0	1.0	0.6

Ten years probability of hip fractures (%) according to BMD, the number of clinical risk factors (CRF) and age in women 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	21	12	6.7	3.7	2.0	1.1	0.6	0.3	0.2	0.1	0.1
1	32 (22-38)	19 (13-23)	10 (7.1-13)	5.8 (3.8-7.1)	3.1 (2.1-3.9)	1.7 (1.1-2.1)	0.9 (0.6-1.1)	0.5 (0.3-0.6)	0.3 (0.2-0.4)	0.2 (0.1-0.2)	0.1 (0.1-0.1)
2	45 (30-58)	28 (18-38)	16 (9.9-23)	9.0 (5.4-13)	4.9 (3.0-7.1)	2.7 (1.6-3.9)	1.4 (0.9-2.1)	0.8 (0.5-1.2)	0.4 (0.3-0.7)	0.2 (0.2-0.4)	0.1 (0.1-0.2)
3	59 (42-76)	39 (26-55)	24 (15-35)	14 (8.2-21)	7.6 (4.5-12)	4.2 (2.4-6.6)	2.3 (1.3-3.6)	1.3 (0.7-2.0)	0.7 (0.4-1.1)	0.4 (0.2-0.6)	0.2 (0.1-0.4)
4	74 (60-87)	53 (40-70)	34 (24-48)	20 (14-30)	12 (7.6-18)	6.4 (4.1-9.9)	3.5 (2.2-5.4)	2.0 (1.3-3.1)	1.1 (0.7-1.7)	0.6 (0.4-1.0)	0.3 (0.2-0.5)
5	86 (80-92)	68 (60-80)	47 (40-60)	29 (24-40)	17 (14-24)	9.7 (7.6-14)	5.3 (4.1-7.6)	3.0 (2.3-4.3)	1.7 (1.3-2.4)	0.9 (0.7-1.4)	0.5 (0.4-0.8)
6	93	82	62	41	25	14	8.0	4.5	2.6	1.4	0.8

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	12	7.1	4.0	2.3	1.3	0.7	0.4	0.2	0.1	0.1
1	30 (22-35)	18 (13-22)	11 (7.4-13)	6.2 (4.2-7.3)	3.5 (2.4-4.1)	2.0 (1.3-2.3)	1.1 (0.8-1.3)	0.6 (0.4-0.8)	0.4 (0.3-0.4)	0.2 (0.1-0.3)	0.1 (0.1-0.2)
2	42 (30-54)	27 (18-35)	16 (10-22)	9.4 (5.9-13)	5.4 (3.4-7.4)	3.0 (1.9-4.2)	1.7 (1.1-2.4)	1.0 (0.6-1.4)	0.6 (0.4-0.8)	0.3 (0.2-0.5)	0.2 (0.1-0.3)
3	56 (41-71)	38 (26-51)	24 (15-34)	14 (8.9-21)	8.2 (5.1-12)	4.6 (2.9-7.0)	2.7 (1.6-4.1)	1.5 (0.9-2.4)	0.9 (0.5-1.4)	0.5 (0.3-0.8)	0.3 (0.2-0.5)
4	70 (59-82)	51 (40-66)	34 (25-46)	21 (15-30)	12 (8.5-18)	7.0 (4.8-11)	4.0 (2.8-6.1)	2.4 (1.6-3.6)	1.4 (0.9-2.1)	0.8 (0.5-1.2)	0.5 (0.3-0.7)
5	82 (77-89)	65 (59-77)	46 (40-58)	29 (25-39)	18 (15-25)	10 (8.6-15)	6.1 (5.0-8.6)	3.6 (2.9-5.1)	2.1 (1.7-3.0)	1.2 (1.0-1.7)	0.7 (0.6-1.0)
6	90	78	60	41	26	15	9.0	5.3	3.1	1.8	1.1

Ten years probability of hip fractures (%) according to BMD, the number of clinical risk factors (CRF) and age in women 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	21	13	7.6	4.5	2.6	1.5	0.9	0.6	0.3	0.2	0.1
1	30 (22-34)	19 (13-22)	11 (8.0-13)	6.8 (4.7-8.0)	4.0 (2.8-4.8)	2.3 (1.6-2.8)	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	41 (29-50)	27 (18-34)	17 (11-21)	10 (6.6-13)	6.0 (3.9-7.8)	3.5 (2.3-4.6)	2.1 (1.4-2.8)	1.3 (0.8-1.7)	0.8 (0.5-1.0)	0.5 (0.3-0.6)	0.3 (0.2-0.4)
3	53 (41-65)	37 (26-48)	24 (16-32)	15 (9.9-21)	8.9 (5.9-13)	5.3 (3.5-7.6)	3.2 (2.1-4.7)	2.0 (1.3-2.8)	1.2 (0.8-1.7)	0.7 (0.5-1.0)	0.4 (0.3-0.6)
4	66 (57-77)	49 (40-62)	33 (26-44)	21 (16-30)	13 (9.7-19)	7.8 (5.7-11)	4.8 (3.5-7.0)	2.9 (2.1-4.3)	1.8 (1.3-2.6)	1.1 (0.8-1.6)	0.6 (0.5-1.0)
5	77 (73-85)	62 (56-73)	45 (39-56)	30 (25-39)	19 (16-25)	11 (9.5-16)	7.1 (5.8-9.8)	4.3 (3.6-6.1)	2.6 (2.2-3.7)	1.6 (1.3-2.3)	1.0 (0.8-1.4)
6	85	74	57	40	26	16	10	6.4	3.9	2.4	1.4

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	20	13	8.1	5.0	3.0	1.9	1.2	0.7	0.5	0.3	0.2
1	31 (27-38)	21 (18-25)	13 (11-16)	8.2 (7.0-10)	5.1 (4.3-6.4)	3.1 (2.7-4.0)	2.0 (1.7-2.5)	1.3 (1.1-1.6)	0.8 (0.7-1.0)	0.5 (0.4-0.6)	0.3 (0.3-0.4)
2	45 (38-55)	31 (26-40)	21 (17-27)	13 (10-18)	8.3 (6.5-11)	5.2 (4.0-7.1)	3.3 (2.6-4.5)	2.1 (1.6-2.9)	1.3 (1.0-1.8)	0.8 (0.6-1.1)	0.5 (0.4-0.7)
3	60 (52-68)	45 (36-54)	31 (24-39)	21 (16-27)	13 (9.8-17)	8.5 (6.2-11)	5.5 (3.9-7.3)	3.5 (2.5-4.7)	2.2 (1.6-3.0)	1.4 (1.0-1.9)	0.9 (0.6-1.2)
4	74 (66-79)	61 (51-67)	45 (36-52)	32 (24-37)	21 (16-25)	14 (10.0-17)	8.9 (6.4-11)	5.7 (4.1-7.1)	3.6 (2.6-4.6)	2.3 (1.7-2.9)	1.5 (1.0-1.8)
5	83 (78-85)	74 (67-77)	61 (52-65)	45 (38-50)	32 (26-35)	21 (17-24)	14 (11-16)	9.2 (7.2-11)	6.0 (4.6-6.9)	3.8 (2.9-4.4)	2.4 (1.9-2.8)
6	88	83	74	61	46	32	22	15	9.6	6.2	4.0

Ten years probability of hip fractures (%) according to BMD, the number of clinical risk factors (CRF) and age in women 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	19	13	8.3	5.4	3.5	2.3	1.5	1.0	0.7	0.4	0.3
1	32 (26-56)	23 (17-43)	15 (12-31)	10 (7.6-21)	6.8 (4.9-14)	4.5 (3.2-9.6)	3.0 (2.1-6.4)	2.0 (1.4-4.3)	1.3 (0.9-2.9)	0.9 (0.6-1.9)	0.6 (0.4-1.2)
2	48 (34-70)	36 (24-58)	26 (16-45)	18 (11-33)	12 (6.9-23)	8.3 (4.6-16)	5.6 (3.1-11)	3.8 (2.0-7.4)	2.5 (1.3-5.0)	1.7 (0.9-3.3)	1.1 (0.6-2.2)
3	63 (46-79)	52 (33-70)	40 (23-58)	29 (16-45)	21 (10-32)	14 (6.9-23)	10.0 (4.6-16)	6.8 (3.1-11)	4.6 (2.0-7.8)	3.0 (1.3-5.2)	2.0 (0.9-3.5)
4	75 (58-84)	67 (45-78)	56 (33-68)	44 (23-56)	33 (16-44)	24 (11-33)	17 (7.3-24)	12 (4.9-17)	7.9 (3.3-12)	5.4 (2.2-7.8)	3.6 (1.4-5.3)
5	83 (70-87)	78 (59-83)	70 (47-76)	60 (35-66)	48 (25-54)	37 (17-42)	27 (12-32)	19 (8.3-23)	13 (5.6-16)	9.2 (3.7-11)	6.2 (2.5-7.5)
6	88	85	81	74	64	52	41	30	22	15	10

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	17	12	8.1	5.5	3.8	2.7	1.9	1.3	0.9	0.6	0.4
1	28 (21-50)	20 (15-39)	15 (11-30)	10 (7.2-21)	7.2 (5.0-15)	5.1 (3.5-11)	3.6 (2.4-7.8)	2.5 (1.7-5.5)	1.8 (1.2-3.9)	1.2 (0.8-2.7)	0.9 (0.6-1.9)
2	41 (28-62)	32 (21-52)	24 (15-41)	17 (10-32)	13 (7.0-24)	9.1 (4.9-17)	6.5 (3.5-13)	4.6 (2.4-9.1)	3.3 (1.7-6.5)	2.3 (1.2-4.6)	1.6 (0.8-3.2)
3	54 (37-71)	45 (28-63)	36 (20-53)	27 (15-42)	20 (10-33)	15 (7.4-25)	11 (5.2-18)	8.0 (3.7-13)	5.7 (2.6-9.6)	4.0 (1.8-6.8)	2.8 (1.2-4.8)
4	66 (48-77)	58 (38-71)	49 (29-62)	40 (21-52)	31 (15-42)	24 (11-33)	18 (7.8-25)	13 (5.6-19)	9.6 (3.9-14)	6.8 (2.8-10)	4.8 (1.9-7.2)
5	76 (58-81)	70 (49-76)	62 (39-69)	54 (30-60)	44 (22-51)	36 (17-42)	28 (12-33)	21 (8.9-25)	15 (6.3-19)	11 (4.5-14)	8.0 (3.2-10)
6	83	79	74	67	58	49	40	31	24	18	13

Ten years probability of hip fractures (%) according to BMD, the number of clinical risk factors (CRF) and age in women 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	14	10	7.4	5.4	4.0	3.0	2.2	1.6	1.2	0.9	0.7
1	23 (18-43)	17 (13-34)	13 (9.6-27)	9.8 (7.0-21)	7.4 (5.2-16)	5.6 (3.9-12)	4.2 (2.9-9.1)	3.1 (2.1-6.8)	2.3 (1.6-5.1)	1.7 (1.2-3.8)	1.3 (0.9-2.8)
2	34 (23-53)	27 (17-45)	21 (13-36)	16 (9.6-29)	13 (7.2-23)	9.6 (5.5-18)	7.3 (4.1-14)	5.5 (3.0-11)	4.1 (2.2-8.0)	3.1 (1.6-6.0)	2.3 (1.2-4.5)
3	46 (30-62)	38 (23-55)	31 (18-46)	25 (13-38)	20 (10-31)	16 (7.6-25)	12 (5.7-20)	9.3 (4.3-15)	7.0 (3.2-12)	5.3 (2.4-8.9)	3.9 (1.8-6.7)
4	58 (38-69)	51 (31-63)	43 (24-55)	36 (19-47)	29 (14-40)	24 (11-33)	19 (8.6-26)	15 (6.5-21)	11 (4.8-16)	8.7 (3.6-12)	6.6 (2.7-9.3)
5	68 (48-74)	62 (40-68)	55 (33-62)	48 (26-54)	41 (21-47)	34 (16-40)	28 (13-33)	22 (9.7-27)	18 (7.3-21)	14 (5.6-17)	11 (4.2-13)
6	76	72	67	60	53	46	39	33	26	21	16

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	11	8.3	6.4	4.9	3.9	3.1	2.4	1.9	1.5	1.2	0.9
1	18 (14-35)	14 (11-29)	11 (8.3-23)	8.8 (6.4-19)	7.1 (5.1-15)	5.7 (4.0-12)	4.5 (3.2-9.9)	3.6 (2.5-7.9)	2.8 (2.0-6.3)	2.2 (1.5-4.9)	1.7 (1.2-3.9)
2	27 (17-45)	22 (14-38)	18 (11-32)	15 (8.4-26)	12 (6.7-22)	9.6 (5.4-18)	7.7 (4.3-14)	6.2 (3.4-12)	4.9 (2.7-9.3)	3.9 (2.1-7.4)	3.1 (1.7-5.9)
3	38 (23-53)	32 (18-47)	27 (15-40)	22 (12-34)	19 (9.3-29)	15 (7.5-24)	13 (6.0-20)	10 (4.8-17)	8.2 (3.8-14)	6.5 (3.0-11)	5.2 (2.3-8.7)
4	49 (30-61)	43 (25-55)	37 (20-49)	32 (16-42)	27 (13-37)	23 (11-32)	19 (8.6-27)	16 (6.9-22)	13 (5.5-18)	10 (4.4-15)	8.4 (3.5-12)
5	60 (39-66)	55 (33-61)	49 (27-55)	43 (23-49)	38 (19-43)	33 (15-38)	28 (13-32)	23 (10-27)	20 (8.2-23)	16 (6.6-19)	13 (5.2-16)
6	69	65	60	55	50	44	39	33	28	24	20