

**Kazakhstan - The probabilities of a major osteoporotic fracture in men**

The following tables give the 10-year probability (%) of a major osteoporotic fracture (hip, clinical spine, forearm or proximal humerus 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/m<sup>2</sup>

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	34	22	15	10	7.7	6.1	5.0	4.3	3.9	3.7	3.5
1	46 (40-56)	32 (29-39)	22 (19-27)	15 (13-19)	11 (8.9-14)	9.1 (6.6-11)	7.5 (5.2-9.8)	6.4 (4.3-8.6)	5.8 (3.7-7.9)	5.5 (3.5-7.6)	5.3 (3.3-7.3)
2	60 (50-73)	44 (36-57)	31 (25-41)	22 (17-30)	17 (12-24)	13 (8.4-20)	11 (6.4-18)	9.3 (5.2-16)	8.4 (4.5-14)	8.0 (4.2-14)	7.6 (3.9-13)
3	73 (61-82)	57 (45-68)	42 (32-53)	31 (23-43)	24 (15-36)	19 (11-30)	16 (8.4-27)	13 (6.8-24)	12 (5.8-22)	11 (5.4-21)	11 (5.1-20)
4	82 (72-87)	70 (56-78)	55 (41-63)	42 (30-52)	33 (23-44)	26 (18-38)	22 (13-33)	18 (11-29)	17 (9.2-27)	16 (8.4-26)	15 (8.0-25)
5	87 (83-89)	80 (72-84)	67 (57-72)	54 (44-61)	43 (34-51)	35 (27-44)	29 (23-38)	25 (19-34)	23 (17-31)	21 (15-30)	21 (14-29)
6	90	86	78	66	55	45	38	33	30	29	27

Ten years probability of osteoporotic 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	31	21	14	10	7.6	5.9	4.8	4.0	3.6	3.4	3.2
1	43 (38-50)	30 (28-36)	21 (18-25)	15 (12-18)	11 (8.7-14)	8.7 (6.4-11)	7.1 (4.9-9.2)	5.9 (4.0-8.0)	5.4 (3.5-7.4)	5.0 (3.2-7.0)	4.7 (3.0-6.7)
2	55 (46-66)	41 (33-51)	29 (24-38)	21 (16-28)	16 (11-22)	13 (8.2-19)	10 (6.2-16)	8.6 (4.9-14)	7.8 (4.3-13)	7.3 (3.9-12)	6.9 (3.6-12)
3	67 (56-76)	53 (42-62)	40 (31-49)	30 (22-40)	22 (15-33)	18 (11-28)	14 (8.2-24)	12 (6.5-21)	11 (5.5-20)	10 (5.0-19)	9.7 (4.6-18)
4	77 (68-83)	64 (53-72)	51 (39-59)	39 (29-49)	31 (22-41)	24 (17-35)	20 (13-30)	17 (10-26)	15 (8.6-25)	14 (7.8-23)	13 (7.2-22)
5	83 (78-85)	74 (67-78)	63 (54-68)	50 (42-57)	40 (33-48)	32 (26-41)	27 (21-35)	23 (18-31)	21 (15-29)	19 (14-27)	18 (13-26)
6	87	81	73	62	51	42	35	30	27	25	24

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	26	18	13	9.5	7.2	5.7	4.6	3.8	3.5	3.2	3.0
1	35 (32-41)	26 (23-30)	19 (16-22)	14 (11-16)	10 (8.1-12)	8.2 (6.1-10)	6.7 (4.7-8.6)	5.6 (3.8-7.4)	5.0 (3.3-6.9)	4.6 (3.0-6.5)	4.3 (2.8-6.1)
2	46 (38-55)	35 (28-43)	26 (21-32)	19 (15-25)	15 (11-20)	12 (7.9-17)	9.5 (6.0-15)	7.9 (4.7-13)	7.2 (4.1-12)	6.6 (3.6-11)	6.2 (3.3-11)
3	57 (47-65)	45 (36-53)	34 (27-43)	26 (20-35)	20 (14-29)	16 (10-25)	13 (7.9-21)	11 (6.2-19)	10 (5.3-18)	9.3 (4.7-17)	8.7 (4.3-16)
4	66 (58-73)	55 (46-62)	44 (35-52)	35 (27-43)	27 (20-37)	22 (16-31)	18 (12-27)	15 (9.4-24)	14 (8.0-22)	13 (7.1-21)	12 (6.4-20)
5	74 (68-77)	64 (58-69)	54 (47-60)	44 (37-51)	35 (29-43)	29 (23-37)	24 (19-32)	20 (16-28)	18 (14-26)	17 (12-24)	16 (11-23)
6	79	72	63	54	44	37	31	26	24	22	21

Ten years probability of osteoporotic 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	22	16	12	8.8	6.8	5.4	4.4	3.7	3.3	3.0	2.8
1	29 (26-33)	22 (19-25)	16 (14-19)	12 (10-14)	9.7 (7.4-11)	7.7 (5.6-9.5)	6.2 (4.4-8.0)	5.3 (3.6-7.0)	4.7 (3.1-6.5)	4.3 (2.8-6.0)	4.0 (2.5-5.6)
2	38 (31-44)	29 (24-34)	22 (18-27)	17 (13-22)	13 (9.9-18)	11 (7.4-16)	8.7 (5.7-13)	7.4 (4.5-12)	6.6 (3.9-11)	6.1 (3.4-10)	5.6 (3.0-9.4)
3	47 (39-53)	37 (31-44)	29 (24-36)	23 (18-31)	18 (13-26)	15 (9.9-22)	12 (7.5-19)	10 (6.0-17)	9.1 (5.1-16)	8.3 (4.4-15)	7.7 (4.0-14)
4	55 (48-62)	46 (39-52)	37 (30-44)	30 (24-38)	24 (19-32)	19 (14-27)	16 (11-24)	14 (8.8-21)	12 (7.5-20)	11 (6.5-18)	10 (5.8-17)
5	63 (58-68)	54 (49-60)	45 (40-52)	37 (32-45)	31 (26-38)	25 (21-33)	21 (17-28)	18 (14-25)	16 (12-23)	15 (11-21)	14 (9.6-20)
6	69	62	54	45	38	32	27	23	21	19	18

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	17	13	10	8.0	6.3	5.0	4.1	3.5	3.1	2.8	2.6
1	24 (20-30)	19 (15-23)	14 (11-18)	11 (8.6-14)	8.8 (6.5-11)	7.0 (5.1-8.6)	5.6 (4.0-6.9)	4.8 (3.3-5.8)	4.2 (2.9-5.1)	3.8 (2.5-4.6)	3.4 (2.3-4.2)
2	32 (26-41)	26 (20-33)	20 (15-26)	16 (11-21)	12 (8.8-17)	9.6 (6.7-13)	7.7 (5.2-11)	6.5 (4.2-9.2)	5.7 (3.6-8.1)	5.1 (3.1-7.3)	4.6 (2.8-6.6)
3	42 (34-50)	34 (26-42)	27 (20-34)	21 (15-28)	17 (12-23)	13 (9.0-19)	11 (6.9-15)	8.8 (5.6-13)	7.6 (4.8-11)	6.7 (4.1-10)	6.0 (3.6-9.4)
4	51 (42-59)	43 (34-51)	35 (27-43)	28 (21-35)	22 (16-29)	18 (13-24)	14 (9.8-19)	12 (7.9-17)	10 (6.7-15)	8.9 (5.8-13)	7.9 (5.1-12)
5	61 (53-66)	52 (45-58)	44 (37-51)	36 (30-43)	29 (24-36)	24 (19-29)	19 (15-24)	16 (12-21)	13 (11-18)	12 (9.2-16)	10 (8.1-14)
6	69	61	54	45	38	31	25	20	17	15	13

Ten years probability of osteoporotic 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	15	12	9.7	7.7	6.2	5.1	4.2	3.6	3.2	2.9	2.6
1	22 (17-37)	18 (13-30)	14 (10-24)	11 (8.0-18)	9.1 (6.3-14)	7.3 (5.0-11)	5.9 (4.0-8.6)	5.0 (3.4-6.9)	4.4 (2.9-5.7)	3.9 (2.6-4.8)	3.4 (2.3-4.1)
2	31 (22-46)	26 (17-38)	21 (14-31)	17 (11-25)	13 (8.4-20)	11 (6.6-16)	8.4 (5.3-12)	7.1 (4.4-10)	6.0 (3.8-8.5)	5.2 (3.2-7.2)	4.6 (2.8-6.2)
3	41 (27-55)	35 (22-47)	29 (18-40)	23 (14-33)	19 (11-26)	15 (8.9-21)	12 (7.0-17)	9.9 (5.9-14)	8.3 (5.0-12)	7.1 (4.3-10)	6.1 (3.7-8.7)
4	51 (35-62)	45 (29-55)	38 (23-48)	32 (19-41)	26 (15-34)	21 (12-28)	17 (9.5-22)	14 (8.0-19)	11 (6.8-16)	9.6 (5.8-13)	8.2 (5.1-11)
5	61 (44-68)	55 (37-62)	48 (31-55)	41 (25-48)	35 (21-41)	28 (17-35)	23 (14-29)	19 (12-24)	16 (10-20)	13 (8.8-17)	11 (7.7-14)
6	70	65	59	52	44	37	31	26	21	18	15

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	15	12	9.8	8.1	6.6	5.4	4.5	4.0	3.5	3.1	2.8
1	21 (16-35)	18 (13-29)	14 (10-24)	12 (8.2-19)	9.6 (6.6-15)	7.9 (5.4-12)	6.5 (4.4-9.9)	5.6 (3.8-8.2)	4.8 (3.3-6.9)	4.2 (2.8-5.7)	3.7 (2.5-4.9)
2	29 (20-44)	25 (16-37)	20 (13-31)	17 (11-26)	14 (8.9-21)	11 (7.2-17)	9.2 (5.9-14)	7.9 (5.0-11)	6.7 (4.2-9.6)	5.8 (3.7-8.1)	5.1 (3.2-6.9)
3	38 (26-51)	33 (21-45)	28 (18-39)	23 (14-33)	19 (12-27)	16 (9.6-22)	13 (7.8-18)	11 (6.6-15)	9.4 (5.7-13)	8.0 (4.9-11)	6.9 (4.2-9.6)
4	48 (32-58)	42 (27-52)	37 (23-46)	31 (19-40)	26 (16-34)	22 (13-29)	18 (11-24)	15 (8.9-20)	13 (7.7-17)	11 (6.6-15)	9.4 (5.7-13)
5	58 (40-64)	52 (34-59)	46 (29-53)	40 (25-47)	35 (21-41)	29 (17-35)	25 (14-30)	21 (12-26)	18 (11-22)	15 (9.3-19)	13 (8.2-16)
6	66	62	56	50	44	38	33	28	24	20	17

Ten years probability of osteoporotic 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	14	12	9.9	8.3	6.9	5.8	4.9	4.3	3.8	3.3	3.0
1	20 (15-33)	17 (12-29)	15 (10-24)	12 (8.5-20)	10 (7.0-17)	8.5 (5.8-14)	7.2 (4.9-12)	6.2 (4.2-9.9)	5.4 (3.7-8.4)	4.7 (3.2-7.1)	4.2 (2.8-6.0)
2	28 (19-42)	24 (16-37)	21 (13-32)	17 (11-27)	15 (9.3-23)	12 (7.7-19)	10 (6.5-16)	9.0 (5.7-14)	7.8 (4.9-12)	6.7 (4.2-9.9)	5.8 (3.7-8.5)
3	37 (24-50)	32 (21-44)	28 (18-39)	24 (15-34)	21 (12-29)	17 (10-25)	15 (8.7-21)	13 (7.6-18)	11 (6.5-16)	9.5 (5.7-13)	8.2 (4.9-12)
4	46 (31-57)	41 (26-52)	37 (23-46)	32 (19-41)	28 (16-36)	24 (14-31)	20 (12-27)	18 (10-24)	15 (8.8-20)	13 (7.6-18)	11 (6.6-15)
5	56 (38-62)	51 (33-58)	46 (29-53)	41 (25-48)	36 (21-43)	32 (18-38)	28 (16-33)	24 (14-30)	21 (12-26)	18 (10-23)	16 (9.2-20)
6	65	61	56	51	46	41	36	32	28	25	22

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	14	12	10	8.5	7.2	6.1	5.3	4.7	4.1	3.7	3.2
1	20 (14-33)	17 (12-29)	15 (10-25)	13 (8.9-22)	11 (7.5-19)	9.2 (6.3-16)	8.0 (5.5-14)	7.1 (4.8-12)	6.2 (4.2-10)	5.5 (3.7-9.1)	4.8 (3.3-7.9)
2	27 (19-41)	24 (16-37)	21 (14-33)	18 (12-29)	16 (10.0-25)	14 (8.5-22)	12 (7.4-19)	10 (6.5-17)	9.2 (5.7-15)	8.1 (5.0-13)	7.1 (4.4-11)
3	36 (24-49)	32 (21-45)	29 (18-40)	25 (16-36)	22 (13-32)	19 (11-28)	17 (9.9-25)	15 (8.7-22)	13 (7.7-19)	12 (6.8-17)	10 (6.0-15)
4	46 (30-56)	42 (26-52)	38 (23-48)	34 (20-43)	30 (17-39)	26 (15-35)	24 (13-31)	21 (12-28)	19 (10-25)	17 (9.2-22)	15 (8.1-20)
5	55 (37-62)	51 (34-58)	47 (30-54)	43 (26-50)	39 (23-46)	35 (20-41)	32 (18-38)	29 (16-34)	26 (14-31)	23 (12-28)	21 (11-25)
6	64	61	57	53	49	45	41	38	34	31	28