FRAX® WHO Fracture Risk Assessment Tool

Russia - The probabilities of a major osteoporotic fracture in women

The following tables give the 10-year probability (%) of a major osteoporotic fracture (hip, clinical spine, forearm or proximal humerus fracture) according to body mass index (BMI kg/m2), the number of clinical risk factors (CRF) and age. Each table provides a mean estimate and a range, based on the epidemiology of Russia. The range is not a confidence interval, but because the weight of different risk factors varies, is a true range.

Age = 50 years

Number of CRFs	BMI (kg/m²)						
	15	20	25	30	35	40	45
0	7.0	6.7	6.5	5.7	5.0	4.4	3.9
1	11 (7.6-16)	10 (7.1-14)	10 (6.8-14)	8.8 (6.0-12)	7.7 (5.2-10)	6.8 (4.6-9.2)	6.0 (4.0-8.1)
2	17 (9.4-27)	16 (8.6-26)	15 (8.1-25)	13 (7.1-22)	12 (6.3-20)	10 (5.5-18)	9.0 (4.8-16)
3	25 (13-41)	23 (12-39)	22 (11-38)	19 (9.6-34)	17 (8.4-30)	15 (7.4-27)	13 (6.4-24)
4	36 (22-53)	33 (19-49)	31 (18-47)	28 (15-43)	25 (13-39)	22 (12-35)	19 (10-31)
5	50 (35-61)	46 (33-57)	43 (31-54)	38 (28-49)	34 (25-44)	31 (22-40)	27 (20-36)
6	66	60	57	51	46	42	37

Ten year probability of osteoporotic fractures (%) according to BMI, the number of clinical risk factors (CRF) and age in women from Russia.

Age = 55 years

Number of CRFs	BMI (kg/m²)						
	15	20	25	30	35	40	45
0	8.1	7.6	7.4	6.5	5.7	5.0	4.4
1	13 (8.8-17)	12 (8.1-16)	11 (7.7-15)	9.9 (6.8-13)	8.7 (5.9-12)	7.6 (5.2-10)	6.7 (4.5-8.9)
2	19 (11-30)	18 (9.9-28)	17 (9.3-27)	15 (8.1-24)	13 (7.1-22)	11 (6.2-19)	10 (5.4-17)
3	28 (16-44)	26 (14-42)	24 (13-41)	21 (11-37)	19 (9.6-33)	17 (8.4-29)	15 (7.3-26)
4	40 (25-56)	36 (22-53)	34 (20-51)	30 (18-46)	27 (15-42)	24 (13-37)	21 (12-34)
5	54 (40-65)	49 (37-60)	46 (35-58)	41 (31-53)	37 (28-48)	33 (25-43)	30 (22-39)
6	69	64	60	55	50	45	40

Age = 60 years

Number of CRFs	BMI (kg/m²)						
	15	20	25	30	35	40	45
0	9.4	8.8	8.5	7.5	6.6	5.8	5.0
1	14 (10-19)	13 (9.4-18)	13 (8.9-17)	11 (7.8-15)	9.9 (6.8-13)	8.7 (6.0-11)	7.6 (5.2-10)
2	21 (13-32)	20 (11-31)	19 (11-30)	17 (9.4-27)	15 (8.2-24)	13 (7.1-21)	11 (6.2-19)
3	31 (18-47)	28 (16-45)	27 (15-44)	24 (13-40)	21 (11-36)	19 (9.6-32)	16 (8.4-28)
4	43 (29-59)	39 (25-56)	37 (23-55)	33 (20-50)	30 (18-45)	26 (15-40)	23 (13-36)
5	56 (44-67)	52 (41-64)	50 (39-61)	45 (35-56)	40 (31-51)	36 (27-46)	32 (24-42)
6	70	67	64	58	53	48	43

Ten year probability of osteoporotic fractures (%) according to BMI, the number of clinical risk factors (CRF) and age in women from Russia.

Age = 65 years

Number of CRFs	BMI (kg/m²)						
	15	**20**	**25**	**30**	**35**	**40**	**45**
0	11	9.9	9.4	8.2	7.2	6.3	5.5
1	16 (12-21)	15 (11-19)	14 (9.9-18)	12 (8.6-16)	11 (7.5-14)	9.4 (6.5-12)	8.2 (5.7-11)
2	24 (15-34)	22 (13-33)	21 (12-32)	18 (10-28)	16 (9.1-25)	14 (7.9-22)	12 (6.8-20)
3	34 (22-48)	31 (19-47)	29 (17-46)	26 (14-41)	23 (12-37)	20 (11-33)	17 (9.3-29)
4	45 (34-60)	42 (29-58)	40 (26-57)	35 (23-51)	31 (20-47)	28 (17-42)	25 (15-38)
5	58 (48-68)	55 (44-66)	52 (42-64)	47 (38-58)	42 (33-53)	38 (29-48)	34 (26-43)
6	71	68	66	60	55	50	45

Age = 70 years

Number of CRFs	BMI (kg/m²)						
	15	**20**	**25**	**30**	**35**	**40**	**45**
0	12	11	10	9.0	7.8	6.8	5.9
1	18 (14-23)	16 (12-20)	15 (11-19)	13 (9.5-17)	11 (8.2-14)	9.7 (7.1-13)	8.4 (6.1-11)
2	27 (18-36)	23 (15-32)	21 (14-29)	18 (12-25)	16 (10-22)	14 (8.7-19)	12 (7.5-17)
3	38 (27-50)	33 (22-46)	30 (19-42)	26 (16-37)	22 (14-33)	19 (12-29)	17 (10-25)
4	51 (39-64)	45 (34-59)	40 (30-54)	35 (26-49)	31 (22-43)	27 (19-38)	23 (16-33)
5	64 (57-72)	59 (51-68)	53 (45-63)	47 (39-57)	42 (34-51)	36 (29-45)	32 (25-40)
6	74	72	67	61	55	48	43

Ten year probability of osteoporotic fractures (%) according to BMI, the number of clinical risk factors (CRF) and age in women from Russia.

Age = 75 years

Number of CRFs	BMI (kg/m²)						
	15	**20**	**25**	**30**	**35**	**40**	**45**
0	15	13	12	11	9.1	7.8	6.7
1	22 (16-30)	19 (14-24)	18 (13-22)	15 (11-19)	13 (9.5-16)	11 (8.1-14)	9.3 (6.9-12)
2	32 (21-45)	28 (19-39)	25 (17-33)	21 (14-28)	18 (12-24)	15 (10-20)	13 (8.6-18)
3	44 (30-59)	40 (27-53)	35 (24-47)	30 (20-41)	26 (17-35)	22 (14-30)	18 (12-26)
4	57 (41-69)	53 (38-66)	48 (35-61)	41 (30-54)	36 (25-48)	30 (21-41)	26 (18-36)
5	69 (57-76)	66 (55-74)	61 (52-71)	55 (46-64)	48 (40-57)	42 (35-51)	36 (30-44)
6	78	76	74	68	62	55	48

Age = 80 years

Number of CRFs	BMI (kg/m²)						
	15	**20**	**25**	**30**	**35**	**40**	**45**
0	15	15	14	12	10	8.6	7.3
1	23 (17-32)	21 (16-28)	20 (15-24)	17 (12-20)	14 (10-17)	12 (8.7-14)	10 (7.3-12)
2	32 (22-45)	30 (20-40)	28 (19-36)	24 (16-30)	20 (13-26)	17 (11-22)	14 (9.2-18)
3	43 (29-57)	41 (28-53)	38 (27-49)	32 (22-42)	27 (19-36)	23 (16-31)	19 (13-26)
4	54 (40-66)	52 (39-63)	49 (37-61)	43 (31-55)	37 (26-48)	31 (22-42)	27 (18-36)
5	65 (52-72)	63 (51-71)	61 (50-69)	55 (44-63)	48 (38-57)	42 (33-51)	36 (28-44)
6	73	72	71	65	59	53	46

Ten year probability of osteoporotic fractures (%) according to BMI, the number of clinical risk factors (CRF) and age in women from Russia.

Age = 85 years

Number of CRFs	BMI (kg/m²)						
	15	20	25	30	35	40	45
0	14	13	13	11	9.2	7.7	6.4
1	21 (15-31)	20 (14-28)	19 (14-24)	16 (11-20)	13 (9.3-16)	11 (7.7-13)	9.0 (6.3-11)
2	30 (21-44)	28 (19-40)	27 (18-35)	22 (15-30)	18 (12-25)	15 (9.9-21)	13 (8.1-17)
3	41 (27-55)	39 (25-52)	36 (24-48)	31 (20-41)	26 (17-35)	21 (14-30)	18 (11-25)
4	52 (37-64)	50 (36-61)	47 (34-59)	41 (29-52)	35 (24-46)	29 (20-39)	25 (16-33)
5	62 (49-70)	61 (48-69)	59 (47-67)	52 (41-61)	46 (35-55)	39 (29-48)	33 (25-42)
6	70	70	69	63	57	50	44

Age = 90 years

Number of CRFs	BMI (kg/m²)						
	15	20	25	30	35	40	45
0	10	9.9	9.9	8.1	6.6	5.5	4.5
1	16 (11-25)	15 (10-22)	14 (10-19)	12 (8.2-16)	9.6 (6.6-13)	7.8 (5.4-10)	6.4 (4.4-8.2)
2	24 (16-36)	22 (14-33)	21 (13-29)	17 (11-24)	14 (8.8-19)	11 (7.1-16)	9.2 (5.7-13)
3	34 (21-47)	31 (19-44)	29 (18-40)	24 (15-34)	20 (12-28)	16 (9.7-23)	13 (7.8-19)
4	45 (30-56)	42 (28-53)	39 (27-50)	33 (22-43)	28 (18-37)	23 (15-31)	19 (12-26)
5	55 (41-62)	53 (39-61)	50 (37-59)	44 (32-53)	37 (27-46)	31 (22-40)	26 (18-33)
6	62	63	61	55	49	42	36