FRAX® WHO Fracture Risk Assessment Tool

China - 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 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 China. 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	1.5	1.4	1.4	1.2	1.1	0.9	0.8
1	2.4 (1.6-3.5)	2.2 (1.5-3.2)	2.2 (1.4-3.0)	1.9 (1.3-2.6)	1.6 (1.1-2.3)	1.4 (1.0-2.0)	1.3 (0.8-1.7)
2	3.8 (2.0-6.4)	3.5 (1.8-6.0)	3.3 (1.8-5.9)	2.9 (1.5-5.1)	2.5 (1.3-4.5)	2.2 (1.1-3.9)	1.9 (1.0-3.4)
3	5.9 (2.9-10)	5.4 (2.6-9.6)	5.1 (2.4-9.3)	4.4 (2.1-8.1)	3.8 (1.8-7.1)	3.3 (1.6-6.2)	2.9 (1.4-5.4)
4	9.1 (4.9-14)	8.1 (4.3-13)	7.6 (3.9-13)	6.6 (3.4-11)	5.7 (2.9-9.5)	4.9 (2.5-8.3)	4.3 (2.2-7.3)
5	14 (8.3-18)	12 (7.7-16)	11 (7.4-15)	9.7 (6.4-13)	8.4 (5.6-11)	7.3 (4.9-10)	6.3 (4.2-8.7)
6	21	18	16	14	12	10	9.1

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

Age = 55 years

Number of CRFs	BMI (kg/m²)						
	15	20	25	30	35	40	45
0	1.8	1.7	1.6	1.4	1.2	1.1	0.9
1	2.8 (1.9-4.1)	2.6 (1.8-3.7)	2.5 (1.7-3.5)	2.2 (1.5-3.0)	1.9 (1.3-2.6)	1.7 (1.1-2.3)	1.4 (1.0-2.0)
2	4.5 (2.5-7.3)	4.1 (2.2-6.9)	3.9 (2.1-6.7)	3.4 (1.8-5.8)	2.9 (1.6-5.1)	2.5 (1.3-4.4)	2.2 (1.2-3.9)
3	6.9 (3.7-11)	6.3 (3.2-11)	5.9 (2.9-11)	5.1 (2.5-9.1)	4.4 (2.1-7.9)	3.8 (1.8-6.9)	3.3 (1.6-6.0)
4	11 (6.1-16)	9.4 (5.3-15)	8.8 (4.7-14)	7.5 (4.0-12)	6.5 (3.4-11)	5.6 (2.9-9.3)	4.8 (2.5-8.1)
5	16 (9.8-21)	14 (9.1-19)	13 (8.7-17)	11 (7.5-15)	9.5 (6.5-13)	8.2 (5.6-11)	7.1 (4.8-9.8)
6	23	20	18	16	14	12	10

Age = 60 years

Number of CRFs	BMI (kg/m²)						
	15	20	25	30	35	40	45
0	2.1	2.0	1.9	1.7	1.4	1.2	1.1
1	3.3 (2.3-4.8)	3.1 (2.1-4.3)	3.0 (2.0-4.0)	2.5 (1.7-3.4)	2.2 (1.5-2.9)	1.9 (1.3-2.5)	1.6 (1.1-2.2)
2	5.2 (3.1-8.1)	4.8 (2.7-7.7)	4.5 (2.5-7.5)	3.9 (2.1-6.5)	3.3 (1.8-5.7)	2.9 (1.6-4.9)	2.5 (1.3-4.2)
3	8.0 (4.7-12)	7.2 (4.0-12)	6.8 (3.6-12)	5.8 (3.0-10)	5.0 (2.6-8.7)	4.3 (2.2-7.5)	3.7 (1.9-6.5)
4	12 (7.5-18)	11 (6.5-17)	10 (5.8-16)	8.6 (4.8-14)	7.3 (4.1-12)	6.3 (3.4-10)	5.3 (2.9-8.8)
5	18 (11-23)	16 (11-21)	15 (10-19)	12 (8.6-17)	11 (7.3-14)	9.0 (6.3-12)	7.7 (5.4-11)
6	25	23	21	18	15	13	11

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

Age = 65 years

Number of CRFs	BMI (kg/m²)						
	15	20	25	30	35	40	45
0	2.5	2.3	2.1	1.8	1.6	1.3	1.1
1	3.8 (2.7-5.3)	3.5 (2.4-4.7)	3.3 (2.3-4.4)	2.8 (1.9-3.7)	2.4 (1.6-3.1)	2.0 (1.4-2.7)	1.7 (1.2-2.3)
2	5.8 (3.7-8.6)	5.3 (3.2-8.2)	5.0 (2.9-8.0)	4.2 (2.4-6.8)	3.6 (2.0-5.9)	3.0 (1.7-5.0)	2.6 (1.4-4.3)
3	8.8 (5.6-13)	8.0 (4.9-12)	7.4 (4.3-12)	6.3 (3.6-10)	5.3 (3.0-8.8)	4.5 (2.5-7.5)	3.8 (2.1-6.4)
4	13 (8.4-18)	12 (7.7-17)	11 (6.8-17)	9.2 (5.6-14)	7.7 (4.6-12)	6.5 (3.8-10)	5.5 (3.2-8.9)
5	18 (13-24)	17 (12-22)	16 (11-21)	13 (9.4-18)	11 (7.9-15)	9.4 (6.6-13)	7.9 (5.6-11)
6	26	24	22	19	16	13	11

Age = 70 years

Number of CRFs	BMI (kg/m²)						
	15	20	25	30	35	40	45
0	2.8	2.5	2.4	2.0	1.7	1.4	1.2
1	4.3 (3.0-5.5)	3.9 (2.8-5.0)	3.5 (2.5-4.6)	2.9 (2.1-3.8)	2.4 (1.7-3.2)	2.0 (1.4-2.7)	1.7 (1.2-2.3)
2	6.7 (4.3-10)	6.0 (3.8-8.9)	5.3 (3.4-7.8)	4.4 (2.7-6.4)	3.6 (2.2-5.3)	3.0 (1.8-4.4)	2.5 (1.5-3.7)
3	10 (6.1-16)	9.1 (5.6-14)	8.0 (5.1-12)	6.6 (4.1-9.9)	5.4 (3.4-8.1)	4.4 (2.7-6.7)	3.6 (2.2-5.5)
4	15 (9.8-22)	14 (8.8-20)	12 (7.9-18)	9.8 (6.4-15)	8.0 (5.1-12)	6.5 (4.1-9.9)	5.3 (3.3-8.1)
5	23 (18-29)	20 (16-27)	18 (14-23)	15 (11-19)	12 (9.2-16)	9.6 (7.4-13)	7.8 (5.9-11)
6	32	29	26	21	17	14	11

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

Age = 75 years

Number of CRFs	BMI (kg/m²)						
	15	**20**	**25**	**30**	**35**	**40**	**45**
0	3.3	3.0	2.7	2.2	1.8	1.5	1.2
1	5.5 (3.6-8.8)	4.8 (3.2-7.3)	4.2 (2.9-5.8)	3.4 (2.4-4.6)	2.8 (1.9-3.7)	2.3 (1.6-2.9)	1.8 (1.3-2.3)
2	9.0 (5.0-15)	7.8 (4.5-13)	6.7 (4.0-10)	5.4 (3.2-8.2)	4.3 (2.6-6.6)	3.5 (2.1-5.2)	2.8 (1.7-4.2)
3	14 (7.2-23)	12 (6.6-20)	11 (6.0-16)	8.4 (4.8-13)	6.7 (3.8-10)	5.4 (3.0-8.3)	4.3 (2.4-6.6)
4	22 (12-31)	19 (11-28)	16 (9.4-24)	13 (7.5-20)	10 (5.9-16)	8.3 (4.7-13)	6.6 (3.7-10)
5	31 (19-40)	28 (18-36)	25 (16-32)	20 (13-27)	16 (10-22)	13 (8.3-17)	10 (6.6-14)
6	42	39	36	30	24	19	15

Age = 80 years

Number of CRFs	BMI (kg/m²)						
	15	**20**	**25**	**30**	**35**	**40**	**45**
0	3.7	3.3	3.1	2.5	2.0	1.6	1.3
1	6.2 (4.1-10)	5.4 (3.7-8.7)	4.8 (3.3-7.0)	3.8 (2.6-5.5)	3.1 (2.1-4.3)	2.5 (1.7-3.4)	2.0 (1.4-2.7)
2	10 (5.9-17)	8.7 (5.2-14)	7.5 (4.6-11)	6.0 (3.6-8.9)	4.7 (2.9-7.0)	3.8 (2.3-5.5)	3.0 (1.8-4.4)
3	16 (8.6-24)	14 (7.5-21)	12 (6.7-17)	9.3 (5.3-14)	7.3 (4.2-11)	5.8 (3.3-8.7)	4.6 (2.6-6.9)
4	24 (13-33)	21 (12-29)	18 (11-25)	14 (8.4-20)	11 (6.6-16)	8.9 (5.2-13)	7.0 (4.1-10)
5	33 (20-42)	30 (18-38)	26 (16-33)	21 (13-27)	17 (10-22)	13 (8.2-18)	11 (6.5-14)
6	45	41	37	30	25	20	16

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

Age = 85 years

Number of CRFs	BMI (kg/m²)						
	15	**20**	**25**	**30**	**35**	**40**	**45**
0	3.7	3.5	3.4	2.7	2.2	1.8	1.4
1	6.2 (4.1-11)	5.6 (3.7-9.0)	5.2 (3.5-7.6)	4.1 (2.8-6.0)	3.3 (2.2-4.7)	2.6 (1.8-3.7)	2.1 (1.4-2.9)
2	10 (5.9-17)	8.9 (5.3-14)	8.0 (4.8-12)	6.3 (3.8-9.6)	5.0 (3.0-7.5)	4.0 (2.4-5.9)	3.1 (1.9-4.6)
3	16 (8.5-24)	14 (7.5-21)	12 (6.9-18)	9.7 (5.4-15)	7.6 (4.2-12)	6.0 (3.3-9.3)	4.7 (2.6-7.3)
4	23 (13-33)	21 (11-29)	18 (11-26)	15 (8.5-21)	12 (6.7-17)	9.1 (5.2-13)	7.1 (4.1-10)
5	33 (20-41)	30 (18-37)	26 (16-34)	21 (13-28)	17 (10-23)	14 (8.3-18)	11 (6.5-14)
6	44	40	37	30	25	20	16

Age = 90 years

Number of CRFs	BMI (kg/m²)						
	15	**20**	**25**	**30**	**35**	**40**	**45**
0	3.7	3.5	3.5	2.8	2.2	1.8	1.5
1	6.2 (4.1-10)	5.6 (3.7-9.0)	5.3 (3.6-7.9)	4.2 (2.8-6.2)	3.4 (2.2-4.8)	2.7 (1.8-3.8)	2.1 (1.4-3.0)
2	9.9 (5.8-17)	8.9 (5.2-15)	8.2 (4.9-13)	6.5 (3.8-10)	5.1 (3.0-7.8)	4.0 (2.4-6.1)	3.2 (1.9-4.8)
3	15 (8.4-24)	14 (7.4-21)	12 (6.8-19)	9.8 (5.4-15)	7.7 (4.2-12)	6.1 (3.3-9.5)	4.8 (2.6-7.5)
4	23 (13-32)	20 (11-29)	18 (11-26)	15 (8.4-21)	12 (6.7-17)	9.1 (5.2-13)	7.2 (4.1-10)
5	32 (20-40)	29 (18-37)	26 (16-34)	21 (13-28)	17 (10-23)	14 (8.2-18)	11 (6.5-14)
6	43	40	36	30	25	20	16