FRAX® WHO Fracture Risk Assessment Tool

Pakistan - 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 Pakistan. 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	1.0	0.9	0.9	0.8	0.7	0.6	0.5
1	1.6 (1.0-2.4)	1.5 (1.0-2.1)	1.4 (1.0-2.0)	1.3 (0.8-1.7)	1.1 (0.7-1.5)	0.9 (0.6-1.3)	0.8 (0.5-1.1)
2	2.5 (1.3-4.3)	2.3 (1.2-4.0)	2.2 (1.2-3.9)	1.9 (1.0-3.4)	1.7 (0.9-3.0)	1.5 (0.8-2.6)	1.3 (0.7-2.3)
3	4.0 (2.0-6.8)	3.6 (1.7-6.4)	3.4 (1.6-6.3)	2.9 (1.4-5.4)	2.5 (1.2-4.7)	2.2 (1.0-4.1)	1.9 (0.9-3.6)
4	6.2 (3.2-9.8)	5.5 (2.9-9.0)	5.1 (2.6-8.5)	4.4 (2.2-7.4)	3.8 (1.9-6.4)	3.3 (1.7-5.6)	2.8 (1.4-4.8)
5	9.4 (5.5-13)	8.3 (5.1-11)	7.6 (5.0-10)	6.5 (4.3-9.0)	5.6 (3.7-7.8)	4.8 (3.2-6.7)	4.2 (2.8-5.8)
6	14	12	11	9.6	8.2	7.0	6.1

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

Age = 55 years

Number of CRFs	BMI kg/m²						
	15	20	25	30	35	40	45
0	1.5	1.4	1.4	1.2	1.0	0.9	0.8
1	2.4 (1.6-3.6)	2.2 (1.5-3.2)	2.2 (1.5-3.0)	1.9 (1.2-2.6)	1.6 (1.1-2.2)	1.4 (0.9-1.9)	1.2 (0.8-1.7)
2	3.8 (2.1-6.2)	3.5 (1.9-5.9)	3.3 (1.8-5.7)	2.9 (1.5-4.9)	2.5 (1.3-4.3)	2.1 (1.1-3.7)	1.8 (1.0-3.2)
3	5.9 (3.2-9.6)	5.3 (2.8-9.1)	5.0 (2.5-8.9)	4.3 (2.1-7.7)	3.7 (1.8-6.7)	3.2 (1.6-5.8)	2.8 (1.3-5.0)
4	9.0 (5.2-14)	8.1 (4.5-13)	7.5 (4.1-12)	6.4 (3.4-11)	5.5 (2.9-9.1)	4.7 (2.5-7.9)	4.1 (2.1-6.8)
5	14 (8.2-18)	12 (7.7-16)	11 (7.4-15)	9.4 (6.3-13)	8.1 (5.4-11)	6.9 (4.6-9.6)	5.9 (4.0-8.3)
6	20	18	16	14	12	10.0	8.5

Age = 60 years

Number of CRFs	BMI kg/m²						
	15	20	25	30	35	40	45
0	2.4	2.2	2.2	1.9	1.6	1.4	1.2
1	3.7 (2.6-5.4)	3.5 (2.4-4.9)	3.3 (2.3-4.5)	2.8 (1.9-3.9)	2.4 (1.6-3.3)	2.1 (1.4-2.8)	1.8 (1.2-2.4)
2	5.8 (3.4-9.0)	5.3 (3.1-8.6)	5.1 (2.8-8.4)	4.3 (2.4-7.2)	3.7 (2.0-6.3)	3.2 (1.7-5.4)	2.7 (1.5-4.7)
3	8.8 (5.2-13)	8.0 (4.6-13)	7.6 (4.1-13)	6.5 (3.4-11)	5.5 (2.9-9.5)	4.7 (2.4-8.1)	4.0 (2.1-7.0)
4	13 (8.1-19)	12 (7.2-18)	11 (6.5-18)	9.5 (5.4-15)	8.1 (4.5-13)	6.9 (3.8-11)	5.8 (3.2-9.5)
5	19 (12-25)	17 (12-23)	16 (11-22)	14 (9.4-18)	12 (8.0-16)	9.9 (6.8-14)	8.4 (5.8-12)
6	26	24	23	19	17	14	12

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

Age = 65 years

Number of CRFs	BMI kg/m²						
	15	20	25	30	35	40	45
0	3.5	3.3	3.1	2.7	2.3	1.9	1.7
1	5.3 (3.7-7.4)	5.0 (3.5-6.8)	4.8 (3.3-6.4)	4.1 (2.8-5.4)	3.4 (2.3-4.6)	2.9 (2.0-3.9)	2.5 (1.7-3.3)
2	8.0 (5.1-12)	7.5 (4.6-12)	7.2 (4.2-11)	6.1 (3.5-9.8)	5.1 (2.9-8.4)	4.3 (2.5-7.2)	3.7 (2.1-6.2)
3	12 (7.5-17)	11 (6.9-17)	11 (6.2-17)	8.9 (5.1-14)	7.5 (4.3-12)	6.4 (3.6-10)	5.4 (3.0-9.0)
4	17 (11-24)	16 (11-23)	15 (9.6-23)	13 (7.9-20)	11 (6.5-17)	9.2 (5.4-14)	7.7 (4.4-12)
5	24 (17-30)	22 (16-29)	21 (16-28)	18 (13-24)	15 (11-21)	13 (9.2-18)	11 (7.7-15)
6	31	30	29	25	21	18	15

Age = 70 years

Number of CRFs	BMI kg/m²						
	15	20	25	30	35	40	45
0	4.3	4.1	4.0	3.3	2.8	2.4	2.0
1	6.6 (4.6-8.5)	6.1 (4.3-7.9)	5.8 (4.2-7.6)	4.9 (3.4-6.4)	4.1 (2.9-5.4)	3.4 (2.4-4.5)	2.9 (2.0-3.8)
2	10 (6.4-15)	9.2 (5.9-14)	8.6 (5.4-12)	7.1 (4.4-10)	5.9 (3.7-8.7)	4.9 (3.0-7.3)	4.1 (2.5-6.1)
3	15 (9.1-23)	14 (8.5-20)	13 (8.0-18)	10 (6.6-15)	8.6 (5.4-13)	7.1 (4.4-11)	5.9 (3.6-8.9)
4	22 (14-30)	20 (13-28)	18 (12-26)	15 (9.8-22)	12 (8.0-18)	10 (6.5-15)	8.4 (5.3-13)
5	31 (25-39)	28 (23-36)	26 (21-33)	22 (17-28)	18 (14-24)	15 (11-20)	12 (9.1-16)
6	42	39	36	30	25	21	17

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

Age = 75 years

Number of CRFs	BMI kg/m²						
	15	20	25	30	35	40	45
0	4.9	4.6	4.5	3.7	3.1	2.6	2.1
1	7.8 (5.2-12)	7.2 (4.9-10)	6.7 (4.7-8.6)	5.5 (3.8-6.9)	4.5 (3.1-5.6)	3.7 (2.6-4.6)	3.1 (2.1-3.9)
2	12 (7.2-20)	11 (6.7-18)	10 (6.2-15)	8.3 (5.1-12)	6.7 (4.1-9.9)	5.5 (3.4-8.0)	4.5 (2.7-6.5)
3	19 (10-30)	17 (9.5-27)	15 (9.0-23)	12 (7.3-19)	10 (5.9-15)	8.1 (4.7-12)	6.6 (3.8-9.9)
4	28 (16-39)	25 (15-36)	23 (14-32)	19 (11-27)	15 (8.9-22)	12 (7.1-18)	9.8 (5.7-14)
5	38 (25-48)	36 (24-45)	33 (23-41)	27 (19-35)	22 (15-29)	18 (12-24)	14 (10-19)
6	50	47	44	38	31	26	21

Age = 80 years

Number of CRFs	BMI kg/m²						
	15	20	25	30	35	40	45
0	5.5	5.1	4.8	3.9	3.2	2.6	2.2
1	8.8 (5.9-14)	8.0 (5.5-12)	7.4 (5.2-10)	6.0 (4.1-8.3)	4.8 (3.3-6.6)	3.9 (2.7-5.2)	3.2 (2.2-4.1)
2	14 (8.1-22)	12 (7.6-20)	11 (7.0-16)	9.0 (5.6-13)	7.2 (4.5-10)	5.8 (3.6-8.3)	4.7 (2.9-6.7)
3	21 (12-31)	19 (11-28)	17 (10.0-24)	14 (7.9-20)	11 (6.3-16)	8.7 (5.0-13)	6.9 (4.0-10)
4	29 (17-40)	27 (16-37)	24 (15-33)	20 (12-28)	16 (9.8-23)	13 (7.7-18)	10 (6.1-15)
5	40 (26-48)	37 (24-45)	34 (23-42)	28 (19-36)	23 (15-30)	19 (12-25)	15 (9.8-20)
6	51	48	45	38	32	27	22

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

Age = 85 years

Number of CRFs	BMI kg/m²						
	15	20	25	30	35	40	45
0	5.9	5.4	5.1	4.1	3.3	2.7	2.2
1	9.7 (6.5-16)	8.7 (5.9-14)	7.9 (5.4-12)	6.3 (4.3-9.2)	5.1 (3.4-7.2)	4.0 (2.7-5.7)	3.2 (2.2-4.5)
2	15 (9.2-25)	14 (8.3-22)	12 (7.5-18)	9.7 (5.9-15)	7.7 (4.7-12)	6.1 (3.7-9.1)	4.9 (2.9-7.2)
3	23 (13-34)	20 (12-31)	18 (11-27)	15 (8.4-22)	12 (6.6-18)	9.3 (5.2-14)	7.3 (4.1-11)
4	33 (19-44)	29 (17-40)	26 (16-36)	22 (13-30)	17 (10-24)	14 (8.2-20)	11 (6.4-16)
5	43 (29-52)	40 (26-49)	37 (24-45)	31 (20-39)	25 (16-32)	20 (13-27)	16 (10-22)
6	54	52	48	42	35	29	24

Age = 90 years

Number of CRFs	BMI kg/m²						
	15	20	25	30	35	40	45
0	5.6	5.2	5.2	4.2	3.4	2.8	2.2
1	9.2 (6.2-15)	8.3 (5.6-13)	7.8 (5.3-11)	6.3 (4.3-8.9)	5.0 (3.4-7.0)	4.0 (2.7-5.6)	3.2 (2.2-4.4)
2	15 (8.8-24)	13 (7.9-21)	12 (7.3-18)	9.4 (5.8-14)	7.5 (4.6-11)	6.0 (3.6-8.8)	4.8 (2.9-7.0)
3	22 (12-33)	19 (11-29)	17 (10-26)	14 (8.0-21)	11 (6.3-17)	8.9 (5.0-14)	7.1 (3.9-11)
4	31 (18-42)	28 (17-38)	25 (16-34)	21 (13-29)	17 (9.9-23)	13 (7.8-19)	11 (6.2-15)
5	42 (28-51)	39 (25-47)	35 (23-44)	29 (19-37)	24 (15-31)	19 (12-25)	16 (9.7-21)
6	52	50	47	40	34	28	22