FRAX®   WHO Fracture Risk Assessment Tool

South Korea - The probabilities of a hip fracture in men

The following tables give the 10-year probability (%) of a hip 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 South Korea. 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	0.5	0.3	0.2	0.1	0.1	0.1	0.1
1	0.9 (0.6-1.8)	0.5 (0.4-1.1)	0.3 (0.2-0.6)	0.2 (0.2-0.5)	0.2 (0.1-0.4)	0.1 (0.1-0.3)	0.1 (0.1-0.2)
2	1.7 (0.8-3.5)	1.0 (0.5-2.1)	0.6 (0.3-1.2)	0.5 (0.2-1.0)	0.3 (0.2-0.7)	0.3 (0.1-0.6)	0.2 (0.1-0.4)
3	3.1 (1.3-6.1)	1.9 (0.8-3.7)	1.1 (0.4-2.2)	0.8 (0.3-1.7)	0.7 (0.3-1.3)	0.5 (0.2-1.0)	0.4 (0.2-0.8)
4	5.5 (2.3-9.1)	3.4 (1.4-5.6)	2.0 (0.8-3.3)	1.5 (0.6-2.5)	1.2 (0.5-2.0)	0.9 (0.4-1.5)	0.7 (0.3-1.2)
5	9.4 (4.3-12)	5.9 (2.7-7.8)	3.5 (1.6-4.7)	2.7 (1.2-3.7)	2.1 (0.9-2.8)	1.6 (0.7-2.2)	1.3 (0.6-1.7)
6	16	10	6.1	4.8	3.7	2.9	2.2

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

Age = 55 years

Number of CRFs	BMI (kg/m²)						
	15	20	25	30	35	40	45
0	0.7	0.5	0.3	0.2	0.2	0.1	0.1
1	1.4 (1.0-2.5)	0.8 (0.6-1.5)	0.5 (0.3-0.9)	0.4 (0.3-0.7)	0.3 (0.2-0.5)	0.2 (0.2-0.4)	0.2 (0.1-0.3)
2	2.5 (1.3-4.6)	1.6 (0.8-2.9)	0.9 (0.5-1.8)	0.7 (0.4-1.4)	0.5 (0.3-1.1)	0.4 (0.2-0.8)	0.3 (0.2-0.6)
3	4.4 (2.0-8.0)	2.8 (1.3-5.1)	1.7 (0.8-3.1)	1.3 (0.6-2.4)	1.0 (0.4-1.9)	0.8 (0.3-1.4)	0.6 (0.3-1.1)
4	7.4 (3.6-12)	4.8 (2.2-7.7)	2.9 (1.3-4.7)	2.3 (1.0-3.7)	1.8 (0.8-2.8)	1.3 (0.6-2.2)	1.0 (0.5-1.7)
5	12 (6.3-15)	8.2 (4.2-10)	5.1 (2.6-6.6)	3.9 (2.0-5.1)	3.0 (1.6-4.0)	2.3 (1.2-3.0)	1.8 (0.9-2.3)
6	19	13	8.6	6.7	5.2	4.0	3.1

Age = 60 years

Number of CRFs	BMI (kg/m²)						
	15	20	25	30	35	40	45
0	1.2	0.7	0.5	0.3	0.3	0.2	0.2
1	2.1 (1.5-3.4)	1.3 (1.0-2.2)	0.8 (0.6-1.3)	0.6 (0.5-1.0)	0.5 (0.4-0.8)	0.4 (0.3-0.6)	0.3 (0.2-0.5)
2	3.5 (2.0-5.9)	2.3 (1.3-4.0)	1.4 (0.8-2.5)	1.1 (0.6-1.9)	0.8 (0.5-1.5)	0.7 (0.4-1.1)	0.5 (0.3-0.9)
3	5.9 (3.1-10)	4.0 (2.0-6.9)	2.5 (1.3-4.4)	1.9 (1.0-3.4)	1.5 (0.7-2.6)	1.1 (0.6-2.0)	0.9 (0.4-1.5)
4	9.5 (5.1-15)	6.6 (3.6-10)	4.3 (2.2-6.6)	3.3 (1.7-5.1)	2.5 (1.3-4.0)	1.9 (1.0-3.1)	1.5 (0.8-2.3)
5	15 (8.8-19)	11 (6.3-13)	7.1 (4.2-9.0)	5.5 (3.2-7.0)	4.2 (2.5-5.4)	3.3 (1.9-4.1)	2.5 (1.4-3.2)
6	22	17	12	9.0	7.0	5.4	4.1

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

Age = 65 years

Number of CRFs	BMI (kg/m²)						
	15	20	25	30	35	40	45
0	1.7	1.2	0.7	0.6	0.4	0.3	0.3
1	2.9 (2.2-4.3)	2.0 (1.5-2.9)	1.3 (1.0-1.8)	1.0 (0.8-1.4)	0.7 (0.6-1.1)	0.6 (0.4-0.8)	0.4 (0.3-0.6)
2	4.7 (2.9-7.4)	3.3 (2.0-5.1)	2.2 (1.3-3.4)	1.7 (1.0-2.6)	1.3 (0.8-2.0)	1.0 (0.6-1.5)	0.7 (0.5-1.2)
3	7.4 (4.3-12)	5.4 (3.1-8.7)	3.6 (2.0-6.0)	2.8 (1.6-4.6)	2.1 (1.2-3.5)	1.6 (0.9-2.7)	1.2 (0.7-2.1)
4	11 (6.8-17)	8.6 (5.2-13)	5.9 (3.6-8.9)	4.5 (2.7-6.9)	3.5 (2.1-5.3)	2.7 (1.6-4.1)	2.0 (1.2-3.1)
5	17 (11-21)	13 (8.9-16)	9.5 (6.4-12)	7.3 (4.9-9.0)	5.6 (3.7-6.9)	4.3 (2.8-5.3)	3.3 (2.2-4.1)
6	24	20	15	12	8.9	6.9	5.3

Age = 70 years

Number of CRFs	BMI (kg/m²)						
	15	20	25	30	35	40	45
0	2.4	1.8	1.2	0.9	0.7	0.5	0.4
1	4.1 (2.9-5.1)	3.1 (2.2-3.7)	2.1 (1.6-2.5)	1.6 (1.2-1.9)	1.2 (0.9-1.5)	0.9 (0.7-1.1)	0.7 (0.5-0.9)
2	6.8 (4.4-10)	5.2 (3.4-7.7)	3.7 (2.4-5.3)	2.8 (1.8-4.1)	2.1 (1.4-3.1)	1.6 (1.1-2.4)	1.2 (0.8-1.8)
3	11 (6.6-17)	8.7 (5.3-13)	6.3 (4.0-9.1)	4.8 (3.1-7.0)	3.7 (2.3-5.4)	2.8 (1.8-4.1)	2.1 (1.3-3.2)
4	17 (11-24)	14 (9.1-20)	11 (7.0-15)	8.1 (5.3-12)	6.2 (4.1-9.2)	4.8 (3.1-7.1)	3.6 (2.3-5.4)
5	25 (21-32)	22 (18-28)	17 (14-22)	13 (11-17)	10 (8.3-14)	7.9 (6.4-10)	6.1 (4.8-8.1)
6	36	31	26	21	16	13	9.9

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

Age = 75 years

Number of CRFs	BMI (kg/m²)						
	15	20	25	30	35	40	45
0	3.1	2.3	1.7	1.3	1.0	0.7	0.6
1	5.6 (3.7-10)	4.4 (2.9-7.8)	3.2 (2.1-5.7)	2.4 (1.6-4.3)	1.8 (1.2-3.3)	1.4 (0.9-2.5)	1.0 (0.7-1.9)
2	9.8 (5.4-17)	7.8 (4.3-14)	5.8 (3.2-10)	4.4 (2.5-7.7)	3.4 (1.9-5.9)	2.6 (1.4-4.5)	1.9 (1.1-3.4)
3	16 (8.1-27)	13 (6.6-22)	10 (5.2-17)	7.9 (3.9-13)	6.0 (3.0-10)	4.6 (2.2-7.8)	3.5 (1.7-6.0)
4	25 (13-36)	21 (11-31)	17 (8.9-25)	13 (6.8-20)	10 (5.2-16)	7.9 (3.9-12)	6.1 (3.0-9.5)
5	36 (22-45)	32 (19-40)	27 (15-35)	21 (12-28)	17 (9.1-23)	13 (6.9-18)	10 (5.3-14)
6	48	44	39	32	26	21	16

Age = 80 years

Number of CRFs	BMI (kg/m²)						
	15	20	25	30	35	40	45
0	3.3	2.6	2.0	1.5	1.1	0.8	0.6
1	5.9 (3.9-11)	4.7 (3.1-8.6)	3.6 (2.4-6.6)	2.7 (1.8-5.0)	2.1 (1.4-3.8)	1.6 (1.0-2.9)	1.2 (0.8-2.2)
2	9.9 (5.7-18)	8.1 (4.7-14)	6.3 (3.7-11)	4.8 (2.8-8.6)	3.7 (2.1-6.6)	2.8 (1.6-5.0)	2.1 (1.2-3.8)
3	16 (8.5-25)	13 (7.0-21)	11 (5.6-17)	8.2 (4.3-13)	6.3 (3.2-10)	4.8 (2.4-7.8)	3.6 (1.8-5.9)
4	24 (13-34)	21 (11-29)	17 (8.6-24)	13 (6.5-19)	10 (5.0-15)	7.9 (3.7-12)	6.0 (2.8-9.0)
5	34 (20-43)	30 (17-38)	26 (14-33)	21 (11-27)	16 (8.5-21)	13 (6.4-17)	9.8 (4.9-13)
6	46	42	37	30	25	20	15

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

Age = 85 years

Number of CRFs	BMI (kg/m²)						
	15	20	25	30	35	40	45
0	3.3	2.6	2.0	1.5	1.2	0.9	0.7
1	5.9 (3.9-11)	4.8 (3.1-8.7)	3.7 (2.5-6.9)	2.8 (1.9-5.2)	2.1 (1.4-4.0)	1.6 (1.1-3.0)	1.2 (0.8-2.3)
2	9.9 (5.7-18)	8.1 (4.7-15)	6.5 (3.7-12)	4.9 (2.8-8.9)	3.7 (2.1-6.8)	2.8 (1.6-5.2)	2.1 (1.2-3.9)
3	16 (8.5-25)	13 (7.0-21)	11 (5.7-17)	8.3 (4.3-13)	6.4 (3.3-10)	4.8 (2.4-7.9)	3.7 (1.8-6.0)
4	24 (13-33)	21 (11-29)	17 (8.6-24)	13 (6.6-19)	10 (5.0-15)	8.0 (3.8-12)	6.1 (2.8-9.1)
5	34 (20-42)	30 (17-38)	26 (14-33)	21 (11-27)	16 (8.5-22)	13 (6.5-17)	9.8 (4.9-13)
6	45	41	37	30	25	20	15

Age = 90 years

Number of CRFs	BMI (kg/m²)						
	15	20	25	30	35	40	45
0	3.0	2.4	1.8	1.4	1.0	0.8	0.6
1	5.3 (3.5-9.6)	4.2 (2.8-7.8)	3.4 (2.2-6.2)	2.5 (1.7-4.7)	1.9 (1.3-3.6)	1.4 (0.9-2.7)	1.1 (0.7-2.0)
2	8.9 (5.1-16)	7.3 (4.2-13)	5.9 (3.4-11)	4.4 (2.5-8.1)	3.4 (1.9-6.2)	2.5 (1.4-4.7)	1.9 (1.1-3.5)
3	14 (7.6-23)	12 (6.3-19)	9.8 (5.1-16)	7.5 (3.8-12)	5.7 (2.9-9.3)	4.3 (2.2-7.1)	3.3 (1.6-5.4)
4	22 (11-31)	19 (9.4-26)	16 (7.7-22)	12 (5.9-18)	9.4 (4.4-14)	7.2 (3.3-11)	5.4 (2.5-8.1)
5	31 (18-39)	27 (16-35)	24 (13-30)	19 (9.9-25)	15 (7.6-20)	11 (5.8-15)	8.8 (4.4-12)
6	41	38	34	28	22	18	14