Hong Kong - The probabilities of a hip fracture in men

The following tables give the 10-year probability (%) of a hip 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 Hong Kong. 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/m².

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	7.1	3.8	2.0	1.0	0.5	0.3	0.2	0.1	0.0	0.0	0.0
1	11 (7.4-14)	6.0 (3.9-7.9)	3.2 (2.1-4.2)	1.7 (1.1-2.2)	0.9 (0.6-1.2)	0.5 (0.3-0.6)	0.2 (0.2-0.3)	0.1 (0.1-0.2)	0.1 (0.0-0.1)	0.0 (0.0-0.1)	0.0 (0.0-0.0)
2	17 (10-25)	9.4 (5.6-14)	5.0 (3.0-7.6)	2.7 (1.6-4.1)	1.4 (0.8-2.2)	0.7 (0.4-1.1)	0.4 (0.2-0.6)	0.2 (0.1-0.3)	0.1 (0.1-0.2)	0.1 (0.0-0.1)	0.0 (0.0-0.1)
3	25 (15-38)	14 (8.4-23)	7.9 (4.5-13)	4.2 (2.4-6.8)	2.2 (1.2-3.6)	1.2 (0.7-1.9)	0.6 (0.3-1.0)	0.3 (0.2-0.5)	0.2 (0.1-0.3)	0.1 (0.1-0.2)	0.0 (0.0-0.1)
4	36 (25-51)	22 (14-32)	12 (7.5-19)	6.5 (4.0-10)	3.5 (2.1-5.5)	1.8 (1.1-2.9)	1.0 (0.6-1.5)	0.5 (0.3-0.8)	0.3 (0.2-0.4)	0.1 (0.1-0.2)	0.1 (0.1-0.1)
5	50 (40-63)	31 (24-42)	18 (13-25)	9.9 (7.3-14)	5.3 (3.9-7.7)	2.8 (2.1-4.1)	1.5 (1.1-2.2)	0.8 (0.6-1.2)	0.4 (0.3-0.6)	0.2 (0.2-0.3)	0.1 (0.1-0.2)
6	65	44	26	15	8.1	4.3	2.3	1.2	0.6	0.4	0.2

FRAX® WHO Fracture Risk Assessment Tool

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

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	10	5.7	3.1	1.7	0.9	0.5	0.3	0.2	0.1	0.1	0.0
1	16 (11-19)	8.8 (6.0-11)	4.9 (3.3-6.1)	2.7 (1.8-3.4)	1.5 (1.0-1.8)	0.8 (0.5-1.0)	0.4 (0.3-0.6)	0.2 (0.2-0.3)	0.1 (0.1-0.2)	0.1 (0.1-0.1)	0.0 (0.0-0.1)
2	23 (15-32)	13 (8.4-19)	7.6 (4.7-11)	4.2 (2.6-6.1)	2.3 (1.4-3.4)	1.3 (0.8-1.8)	0.7 (0.4-1.0)	0.4 (0.2-0.6)	0.2 (0.1-0.3)	0.1 (0.1-0.2)	0.1 (0.0-0.1)
3	33 (22-46)	20 (12-29)	12 (7.0-17)	6.5 (3.9-10)	3.6 (2.1-5.6)	2.0 (1.2-3.1)	1.1 (0.6-1.7)	0.6 (0.3-0.9)	0.3 (0.2-0.5)	0.2 (0.1-0.3)	0.1 (0.1-0.2)
4	45 (33-60)	29 (20-41)	17 (12-25)	9.8 (6.5-15)	5.5 (3.6-8.4)	3.0 (2.0-4.7)	1.7 (1.1-2.6)	0.9 (0.6-1.4)	0.5 (0.3-0.8)	0.3 (0.2-0.5)	0.2 (0.1-0.3)
5	59 (51-71)	40 (33-52)	25 (20-34)	15 (11-20)	8.3 (6.4-12)	4.6 (3.6-6.6)	2.5 (2.0-3.6)	1.4 (1.1-2.0)	0.8 (0.6-1.1)	0.4 (0.3-0.6)	0.2 (0.2-0.4)
6	72	53	35	21	12	6.9	3.8	2.1	1.2	0.7	0.4

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	12	7.2	4.2	2.5	1.4	0.8	0.5	0.3	0.2	0.1	0.1
1	18 (13-21)	11 (7.5-13)	6.4 (4.4-7.5)	3.8 (2.6-4.4)	2.2 (1.5-2.6)	1.3 (0.9-1.5)	0.7 (0.5-0.9)	0.4 (0.3-0.5)	0.3 (0.2-0.3)	0.2 (0.1-0.2)	0.1 (0.1-0.1)
2	26 (17-34)	16 (10-21)	9.7 (6.2-13)	5.7 (3.6-7.9)	3.4 (2.1-4.6)	2.0 (1.2-2.7)	1.1 (0.7-1.6)	0.7 (0.4-0.9)	0.4 (0.3-0.6)	0.2 (0.2-0.3)	0.1 (0.1-0.2)
3	36 (25-47)	23 (16-32)	14 (9.3-20)	8.6 (5.5-13)	5.1 (3.2-7.5)	3.0 (1.9-4.4)	1.7 (1.1-2.6)	1.0 (0.6-1.5)	0.6 (0.4-0.9)	0.4 (0.2-0.6)	0.2 (0.1-0.3)
4	47 (37-60)	32 (24-44)	21 (15-29)	13 (9.0-18)	7.6 (5.3-11)	4.5 (3.1-6.7)	2.6 (1.8-3.9)	1.5 (1.1-2.3)	0.9 (0.6-1.4)	0.6 (0.4-0.8)	0.3 (0.2-0.5)
5	60 (54-71)	43 (38-54)	29 (25-38)	18 (15-25)	11 (9.3-15)	6.7 (5.5-9.3)	3.9 (3.2-5.5)	2.3 (1.9-3.3)	1.4 (1.1-2.0)	0.8 (0.7-1.2)	0.5 (0.4-0.7)
6	72	56	40	26	16	9.8	5.8	3.4	2.1	1.2	0.8

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

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	14	8.6	5.4	3.3	2.1	1.3	0.8	0.5	0.3	0.2	0.1
1	19 (14-22)	13 (9.0-15)	8.0 (5.6-9.3)	5.0 (3.5-5.8)	3.1 (2.2-3.6)	1.9 (1.3-2.3)	1.2 (0.8-1.4)	0.7 (0.5-0.9)	0.5 (0.3-0.6)	0.3 (0.2-0.4)	0.2 (0.1-0.2)
2	27 (19-34)	18 (13-23)	12 (7.9-15)	7.4 (4.9-9.6)	4.6 (3.1-6.0)	2.9 (1.9-3.7)	1.8 (1.2-2.3)	1.1 (0.7-1.5)	0.7 (0.5-0.9)	0.4 (0.3-0.6)	0.3 (0.2-0.4)
3	37 (28-46)	25 (18-33)	17 (12-22)	11 (7.4-15)	6.8 (4.6-9.4)	4.3 (2.9-5.9)	2.6 (1.8-3.7)	1.7 (1.1-2.3)	1.1 (0.7-1.5)	0.7 (0.4-1.0)	0.4 (0.3-0.6)
4	48 (40-58)	34 (27-44)	23 (18-31)	15 (12-21)	9.9 (7.4-14)	6.2 (4.7-8.9)	3.9 (2.9-5.6)	2.4 (1.8-3.5)	1.6 (1.2-2.3)	1.0 (0.7-1.5)	0.6 (0.5-0.9)
5	59 (55-68)	45 (41-54)	32 (28-41)	22 (19-28)	14 (12-19)	9.1 (7.7-12)	5.7 (4.8-7.9)	3.6 (3.0-5.0)	2.3 (1.9-3.2)	1.5 (1.2-2.1)	0.9 (0.8-1.3)
6	69	56	42	30	20	13	8.2	5.2	3.4	2.2	1.4

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	16	11	7.0	4.6	3.1	2.0	1.3	0.9	0.6	0.4	0.3
1	24 (21-30)	17 (15-21)	11 (9.8-14)	7.5 (6.5-9.6)	5.0 (4.3-6.4)	3.3 (2.8-4.2)	2.2 (1.9-2.8)	1.4 (1.2-1.9)	1.0 (0.8-1.2)	0.7 (0.6-0.8)	0.4 (0.4-0.6)
2	35 (30-43)	25 (21-32)	18 (14-23)	12 (9.8-16)	8.0 (6.5-11)	5.3 (4.3-7.2)	3.5 (2.8-4.8)	2.4 (1.9-3.2)	1.6 (1.3-2.2)	1.1 (0.9-1.5)	0.7 (0.6-1.0)
3	47 (40-55)	36 (30-43)	26 (21-32)	19 (15-23)	13 (9.8-16)	8.6 (6.5-11)	5.7 (4.3-7.2)	3.8 (2.9-4.9)	2.6 (2.0-3.4)	1.8 (1.3-2.3)	1.2 (0.9-1.6)
4	60 (53-66)	49 (41-55)	38 (30-43)	28 (22-32)	20 (15-23)	13 (10-16)	9.1 (6.7-11)	6.2 (4.5-7.5)	4.2 (3.1-5.1)	2.9 (2.1-3.5)	2.0 (1.4-2.4)
5	71 (64-74)	61 (53-65)	50 (42-54)	39 (32-42)	29 (23-32)	21 (16-23)	14 (11-16)	9.8 (7.5-11)	6.8 (5.2-7.7)	4.7 (3.6-5.3)	3.2 (2.4-3.6)
6	78	71	63	52	41	30	22	15	11	7.4	5.1

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

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	16	11	8.1	5.7	4.0	2.8	1.9	1.4	1.0	0.7	0.5
1	27 (22-48)	20 (16-39)	15 (11-29)	11 (8.0-22)	7.6 (5.6-16)	5.3 (3.9-11)	3.7 (2.7-8.0)	2.7 (1.9-5.8)	1.9 (1.4-4.2)	1.4 (1.0-3.0)	1.0 (0.7-2.1)
2	40 (29-60)	32 (21-51)	24 (16-41)	18 (11-32)	13 (7.9-24)	9.6 (5.5-18)	6.8 (3.8-13)	4.9 (2.7-9.4)	3.6 (2.0-6.9)	2.6 (1.4-5.0)	1.8 (1.0-3.6)
3	54 (37-70)	45 (29-62)	37 (22-53)	29 (16-43)	22 (11-34)	16 (8.2-25)	12 (5.8-19)	8.6 (4.1-14)	6.3 (3.0-10)	4.5 (2.1-7.5)	3.3 (1.5-5.4)
4	66 (48-76)	59 (39-70)	50 (30-62)	42 (23-53)	33 (17-43)	25 (12-33)	19 (8.6-26)	14 (6.2-19)	11 (4.5-15)	7.8 (3.3-11)	5.6 (2.3-8.0)
5	76 (59-81)	71 (50-76)	64 (41-70)	56 (32-62)	47 (25-52)	38 (18-42)	29 (13-33)	23 (9.9-26)	17 (7.2-20)	13 (5.3-15)	9.4 (3.8-11)
6	83	80	75	68	61	52	42	34	27	20	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	14	11	8.2	6.1	4.5	3.3	2.5	1.9	1.4	1.1	0.8
1	24 (18-44)	19 (14-36)	14 (11-29)	11 (7.9-23)	8.3 (5.9-18)	6.2 (4.4-13)	4.7 (3.2-10)	3.6 (2.5-7.8)	2.7 (1.9-6.0)	2.0 (1.4-4.5)	1.6 (1.1-3.4)
2	35 (24-54)	28 (18-47)	23 (14-39)	18 (11-32)	14 (8.2-25)	11 (6.1-20)	8.1 (4.5-15)	6.3 (3.5-12)	4.8 (2.6-9.3)	3.7 (2.0-7.1)	2.8 (1.5-5.5)
3	47 (31-63)	40 (24-56)	34 (19-49)	27 (15-42)	22 (11-34)	17 (8.5-27)	13 (6.4-22)	10 (4.9-17)	8.1 (3.8-14)	6.3 (2.9-11)	4.8 (2.2-8.2)
4	59 (39-71)	52 (32-65)	46 (26-58)	39 (21-50)	32 (16-43)	26 (12-35)	21 (9.5-29)	17 (7.4-23)	13 (5.7-18)	10 (4.3-15)	8.0 (3.3-11)
5	70 (50-75)	64 (42-70)	58 (35-64)	51 (29-57)	44 (23-50)	37 (18-42)	30 (14-35)	25 (11-29)	20 (8.5-24)	16 (6.6-19)	13 (5.1-15)
6	78	74	69	63	57	49	42	36	29	24	19

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

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	11	8.7	6.8	5.3	4.1	3.2	2.5	2.0	1.6	1.3	1.0
1	19 (14-37)	15 (11-31)	12 (8.9-25)	9.7 (6.9-20)	7.6 (5.4-16)	6.0 (4.2-13)	4.7 (3.3-10)	3.8 (2.6-8.3)	3.0 (2.1-6.7)	2.4 (1.7-5.4)	1.9 (1.3-4.3)
2	29 (19-47)	24 (15-41)	20 (12-34)	16 (9.5-29)	13 (7.5-23)	10 (5.8-19)	8.3 (4.6-15)	6.7 (3.7-13)	5.4 (3.0-10)	4.3 (2.4-8.3)	3.5 (1.9-6.7)
3	41 (25-57)	35 (20-51)	30 (16-45)	25 (13-38)	20 (10-32)	17 (8.1-27)	14 (6.5-22)	11 (5.2-18)	9.0 (4.2-15)	7.3 (3.3-12)	5.9 (2.7-9.9)
4	53 (33-65)	48 (28-60)	42 (23-54)	36 (19-47)	30 (15-41)	25 (12-34)	21 (9.6-29)	17 (7.8-24)	14 (6.3-20)	12 (5.0-17)	9.6 (4.0-14)
5	64 (44-70)	60 (37-66)	54 (32-60)	48 (26-54)	42 (21-48)	36 (17-42)	31 (14-36)	26 (12-31)	22 (9.4-26)	18 (7.6-22)	15 (6.1-18)
6	73	70	66	61	55	49	43	37	32	27	23

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	5.7	4.6	3.8	3.1	2.5	2.0	1.7	1.4	1.2	1.0	0.8
1	10 (7.4-21)	8.4 (6.1-18)	6.9 (5.0-15)	5.7 (4.0-12)	4.7 (3.3-10)	3.8 (2.7-8.5)	3.2 (2.2-7.1)	2.7 (1.9-6.0)	2.2 (1.6-5.0)	1.9 (1.3-4.2)	1.6 (1.1-3.5)
2	17 (9.8-29)	14 (8.1-25)	12 (6.6-21)	9.7 (5.4-18)	8.0 (4.5-15)	6.6 (3.6-12)	5.6 (3.0-11)	4.7 (2.6-8.9)	4.0 (2.1-7.5)	3.3 (1.8-6.3)	2.8 (1.5-5.4)
3	25 (13-38)	22 (11-33)	18 (9.2-29)	16 (7.6-25)	13 (6.2-21)	11 (5.1-18)	9.2 (4.3-15)	7.8 (3.6-13)	6.6 (3.0-11)	5.6 (2.5-9.4)	4.7 (2.1-8.0)
4	35 (19-47)	31 (16-42)	27 (13-37)	23 (11-32)	20 (9.1-28)	17 (7.5-24)	15 (6.3-20)	12 (5.3-18)	11 (4.5-15)	9.1 (3.8-13)	7.7 (3.2-11)
5	47 (26-53)	42 (22-48)	38 (19-43)	33 (16-38)	29 (13-34)	25 (11-29)	22 (9.3-26)	19 (7.9-22)	16 (6.7-19)	14 (5.7-17)	12 (4.8-14)
6	58	54	50	45	40	35	31	28	24	21	18