FRAX® WHO Fracture Risk Assessment Tool

Lebanon - The probabilities of a hip fracture in women

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 Lebanon. 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	0.3	0.2	0.1	0.1	0.1	0.0	0.0
1	0.6 (0.4-1.1)	0.3 (0.2-0.6)	0.2 (0.1-0.3)	0.1 (0.1-0.3)	0.1 (0.1-0.2)	0.1 (0.1-0.2)	0.1 (0.0-0.1)
2	1.1 (0.6-2.4)	0.6 (0.3-1.3)	0.3 (0.2-0.7)	0.3 (0.1-0.6)	0.2 (0.1-0.4)	0.2 (0.1-0.3)	0.1 (0.1-0.3)
3	2.2 (0.9-4.3)	1.2 (0.5-2.3)	0.6 (0.3-1.3)	0.5 (0.2-1.0)	0.4 (0.2-0.8)	0.3 (0.1-0.6)	0.2 (0.1-0.5)
4	4.0 (1.5-6.4)	2.2 (0.8-3.5)	1.2 (0.5-1.9)	0.9 (0.4-1.5)	0.7 (0.3-1.2)	0.6 (0.2-0.9)	0.4 (0.2-0.7)
5	7.1 (3.2-9.5)	3.9 (1.8-5.3)	2.1 (1.0-2.9)	1.7 (0.7-2.2)	1.3 (0.6-1.7)	1.0 (0.5-1.4)	0.8 (0.4-1.1)
6	12	6.9	3.8	2.9	2.3	1.8	1.4

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

Age = 55 years

Number of CRFs	BMI (kg/m²)						
	15	20	25	30	35	40	45
0	0.6	0.3	0.2	0.1	0.1	0.1	0.1
1	1.2 (0.8-2.0)	0.6 (0.4-1.1)	0.3 (0.2-0.6)	0.3 (0.2-0.5)	0.2 (0.1-0.4)	0.2 (0.1-0.3)	0.1 (0.1-0.2)
2	2.2 (1.2-4.2)	1.2 (0.6-2.3)	0.6 (0.4-1.3)	0.5 (0.3-1.0)	0.4 (0.2-0.8)	0.3 (0.2-0.6)	0.2 (0.1-0.5)
3	3.9 (1.8-7.4)	2.2 (1.0-4.1)	1.2 (0.5-2.3)	0.9 (0.4-1.8)	0.7 (0.3-1.4)	0.6 (0.3-1.1)	0.4 (0.2-0.8)
4	7.0 (3.1-11)	3.9 (1.7-6.2)	2.2 (0.9-3.4)	1.7 (0.7-2.7)	1.3 (0.6-2.1)	1.0 (0.4-1.6)	0.8 (0.3-1.3)
5	12 (6.5-16)	6.9 (3.6-9.1)	3.8 (2.0-5.1)	3.0 (1.6-4.0)	2.3 (1.2-3.1)	1.8 (0.9-2.4)	1.4 (0.7-1.9)
6	20	12	6.6	5.2	4.0	3.2	2.5

Age = 60 years

Number of CRFs	BMI (kg/m²)						
	15	20	25	30	35	40	45
0	1.2	0.7	0.4	0.3	0.2	0.2	0.1
1	2.3 (1.6-3.6)	1.3 (0.9-2.0)	0.7 (0.5-1.1)	0.5 (0.4-0.8)	0.4 (0.3-0.7)	0.3 (0.2-0.5)	0.2 (0.2-0.4)
2	4.1 (2.4-7.2)	2.3 (1.3-4.1)	1.3 (0.7-2.3)	1.0 (0.6-1.8)	0.8 (0.4-1.4)	0.6 (0.3-1.1)	0.5 (0.3-0.8)
3	7.1 (3.6-12)	4.1 (2.0-7.2)	2.3 (1.1-4.0)	1.8 (0.9-3.1)	1.4 (0.7-2.4)	1.1 (0.5-1.9)	0.8 (0.4-1.5)
4	12 (6.3-18)	7.0 (3.6-11)	4.0 (2.0-6.1)	3.1 (1.5-4.8)	2.4 (1.2-3.7)	1.9 (0.9-2.9)	1.4 (0.7-2.2)
5	20 (12-25)	12 (7.3-15)	6.8 (4.1-8.9)	5.3 (3.2-7.0)	4.2 (2.5-5.4)	3.2 (1.9-4.2)	2.5 (1.5-3.3)
6	32	20	12	9.1	7.1	5.5	4.3

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

Age = 65 years

Number of CRFs	BMI (kg/m²)						
	15	20	25	30	35	40	45
0	2.4	1.4	0.8	0.6	0.5	0.4	0.3
1	4.2 (3.2-5.9)	2.4 (1.8-3.4)	1.4 (1.0-1.9)	1.1 (0.8-1.5)	0.8 (0.6-1.1)	0.6 (0.5-0.9)	0.5 (0.4-0.7)
2	7.1 (4.5-11)	4.2 (2.6-6.8)	2.4 (1.5-3.9)	1.8 (1.2-3.1)	1.4 (0.9-2.4)	1.1 (0.7-1.8)	0.9 (0.5-1.4)
3	12 (6.8-19)	7.1 (4.0-12)	4.1 (2.3-6.9)	3.2 (1.8-5.3)	2.5 (1.4-4.2)	1.9 (1.1-3.2)	1.5 (0.8-2.5)
4	19 (12-27)	12 (6.9-17)	7.0 (4.0-10)	5.4 (3.1-8.0)	4.2 (2.4-6.3)	3.3 (1.9-4.9)	2.5 (1.4-3.8)
5	29 (21-35)	19 (13-24)	12 (8.0-15)	9.1 (6.3-12)	7.1 (4.9-9.0)	5.5 (3.8-7.0)	4.3 (2.9-5.5)
6	43	30	19	15	12	9.1	7.1

Age = 70 years

Number of CRFs	BMI (kg/m²)						
	15	20	25	30	35	40	45
0	4.7	2.9	1.7	1.3	1.0	0.8	0.6
1	8.3 (6.4-9.8)	5.2 (4.0-6.0)	3.0 (2.4-3.5)	2.3 (1.9-2.7)	1.8 (1.4-2.1)	1.4 (1.1-1.6)	1.1 (0.9-1.3)
2	14 (9.6-19)	9.1 (6.1-12)	5.5 (3.6-7.4)	4.3 (2.8-5.7)	3.3 (2.2-4.5)	2.5 (1.7-3.5)	2.0 (1.3-2.7)
3	23 (16-32)	16 (10-22)	9.7 (6.3-14)	7.6 (4.9-11)	5.9 (3.8-8.8)	4.6 (3.0-6.8)	3.5 (2.3-5.3)
4	36 (26-47)	26 (19-35)	17 (12-24)	13 (9.5-19)	10 (7.4-15)	8.1 (5.7-12)	6.3 (4.4-9.1)
5	50 (44-59)	40 (34-47)	28 (24-33)	22 (19-27)	18 (15-22)	14 (12-17)	11 (9.1-14)
6	64	56	43	35	29	23	18

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

Age = 75 years

Number of CRFs	BMI (kg/m²)						
	15	**20**	**25**	**30**	**35**	**40**	**45**
0	8.8	5.8	3.6	2.8	2.1	1.6	1.3
1	16 (11-26)	11 (7.8-19)	7.0 (5.0-12)	5.4 (3.9-9.3)	4.2 (3.0-7.2)	3.2 (2.3-5.6)	2.5 (1.7-4.3)
2	26 (16-40)	19 (12-30)	13 (7.5-21)	10 (5.8-17)	7.9 (4.5-13)	6.1 (3.5-10)	4.7 (2.7-8.0)
3	39 (24-55)	31 (19-45)	22 (13-35)	18 (10-28)	14 (7.8-22)	11 (6.0-18)	8.6 (4.6-14)
4	52 (36-66)	46 (30-60)	36 (22-50)	30 (17-43)	24 (14-35)	19 (11-29)	15 (8.3-23)
5	65 (50-73)	61 (44-70)	53 (35-63)	45 (29-55)	38 (23-47)	31 (18-39)	25 (14-32)
6	74	72	69	62	54	46	39

Age = 80 years

Number of CRFs	BMI (kg/m²)						
	15	**20**	**25**	**30**	**35**	**40**	**45**
0	14	10	7.0	5.4	4.2	3.2	2.5
1	23 (16-37)	18 (13-30)	13 (9.3-22)	10 (7.2-17)	7.7 (5.5-14)	6.0 (4.2-11)	4.6 (3.2-8.2)
2	33 (22-50)	28 (19-44)	22 (14-34)	17 (11-28)	14 (8.3-22)	11 (6.4-18)	8.2 (4.9-14)
3	45 (30-60)	41 (27-56)	34 (20-49)	28 (16-41)	22 (12-34)	18 (9.6-28)	14 (7.4-22)
4	57 (40-69)	53 (36-66)	48 (31-60)	41 (25-53)	34 (20-46)	28 (15-38)	22 (12-32)
5	67 (53-74)	64 (49-72)	61 (44-70)	54 (37-63)	47 (31-57)	40 (25-49)	34 (20-42)
6	75	74	72	66	60	53	46

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

Age = 85 years

Number of CRFs	BMI (kg/m²)						
	15	20	25	30	35	40	45
0	19	16	12	9.5	7.3	5.6	4.3
1	29 (21-44)	25 (18-40)	21 (15-34)	16 (12-28)	13 (9.0-22)	10 (6.9-18)	7.7 (5.3-14)
2	40 (27-56)	36 (25-53)	32 (21-48)	26 (17-41)	21 (13-34)	17 (10-28)	13 (7.8-22)
3	51 (36-65)	48 (33-63)	44 (30-59)	37 (24-52)	31 (19-45)	25 (15-38)	20 (11-31)
4	62 (46-73)	59 (42-71)	56 (39-68)	49 (33-62)	43 (27-55)	36 (21-48)	30 (17-41)
5	70 (58-76)	69 (55-75)	67 (52-74)	61 (45-69)	55 (38-63)	48 (32-57)	41 (26-50)
6	75	76	75	71	66	60	53

Age = 90 years

Number of CRFs	BMI (kg/m²)						
	15	20	25	30	35	40	45
0	24	21	18	14	11	8.4	6.4
1	34 (26-50)	31 (23-47)	28 (21-43)	23 (16-36)	18 (13-30)	14 (9.7-24)	11 (7.4-19)
2	46 (33-62)	43 (30-59)	39 (27-56)	33 (22-50)	27 (17-43)	22 (13-36)	17 (10-29)
3	56 (42-69)	54 (39-68)	51 (36-66)	44 (30-59)	38 (24-53)	32 (19-46)	26 (15-39)
4	65 (52-74)	64 (49-74)	62 (46-73)	56 (39-68)	49 (32-62)	43 (26-56)	36 (21-49)
5	69 (62-73)	71 (61-76)	71 (58-77)	66 (52-73)	60 (45-68)	54 (38-63)	48 (32-57)
6	67	74	77	74	70	65	59