FRAX ®   WHO Fracture Risk Assessment Tool

Iceland - The probabilities of a major osteoporotic fracture in women

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 Iceland. 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	5.0	4.6	4.4	3.8	3.4	2.9	2.6
1	8.1 (5.6-12)	7.2 (4.9-10)	6.8 (4.6-9.3)	5.9 (4.0-8.1)	5.2 (3.5-7.1)	4.6 (3.1-6.2)	4.0 (2.7-5.4)
2	13 (7.0-20)	11 (6.1-19)	10 (5.6-18)	9.1 (4.9-15)	8.0 (4.2-14)	7.0 (3.7-12)	6.1 (3.2-11)
3	20 (10-33)	17 (8.5-29)	16 (7.6-27)	14 (6.6-24)	12 (5.8-22)	10 (5.0-19)	9.2 (4.4-17)
4	30 (17-44)	25 (14-39)	23 (13-36)	20 (11-32)	18 (9.5-28)	15 (8.3-25)	14 (7.2-22)
5	43 (28-53)	36 (25-46)	32 (23-42)	29 (20-37)	25 (18-33)	22 (16-29)	20 (14-26)
6	59	51	45	40	36	31	28

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

Age = 55 years

Number of CRFs	BMI (kg/m²)						
	15	20	25	30	35	40	45
0	7.6	6.9	6.5	5.7	5.0	4.4	3.8
1	12 (8.5-17)	11 (7.4-15)	10 (6.9-13)	8.7 (6.0-12)	7.7 (5.2-10)	6.7 (4.6-8.9)	5.9 (4.0-7.8)
2	19 (11-28)	16 (9.2-26)	15 (8.3-24)	13 (7.3-22)	12 (6.3-19)	10 (5.5-17)	8.9 (4.8-15)
3	28 (16-44)	24 (13-39)	22 (11-37)	19 (9.9-33)	17 (8.6-30)	15 (7.5-26)	13 (6.5-23)
4	40 (26-56)	35 (22-51)	31 (19-47)	28 (16-43)	25 (14-38)	22 (12-34)	19 (11-30)
5	56 (41-66)	48 (35-59)	43 (32-54)	39 (29-49)	35 (25-44)	31 (22-40)	27 (20-36)
6	72	64	58	52	47	42	38

Age = 60 years

Number of CRFs	BMI (kg/m²)						
	15	20	25	30	35	40	45
0	11	9.4	8.7	7.6	6.7	5.8	5.1
1	17 (12-22)	14 (10-19)	13 (9.3-17)	12 (8.1-15)	10 (7.1-13)	8.9 (6.2-12)	7.8 (5.4-10)
2	25 (16-36)	22 (13-33)	20 (11-31)	17 (9.9-27)	15 (8.6-24)	13 (7.5-22)	12 (6.5-19)
3	37 (23-53)	31 (18-49)	28 (16-46)	25 (14-41)	22 (12-37)	19 (10-33)	17 (8.9-29)
4	51 (35-67)	44 (30-61)	40 (26-57)	35 (22-52)	31 (19-47)	28 (17-42)	24 (14-38)
5	67 (53-76)	59 (46-69)	53 (42-65)	48 (37-59)	43 (33-54)	38 (29-49)	34 (26-44)
6	81	74	68	63	57	51	46

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

Age = 65 years

Number of CRFs	BMI (kg/m²)						
	15	20	25	30	35	40	45
0	14	12	11	9.5	8.3	7.2	6.3
1	21 (16-28)	18 (13-23)	16 (12-21)	14 (10-18)	12 (8.9-16)	11 (7.7-14)	9.5 (6.7-12)
2	32 (21-43)	27 (17-38)	24 (15-36)	21 (13-32)	18 (11-28)	16 (9.4-25)	14 (8.1-22)
3	45 (31-60)	38 (24-55)	34 (20-52)	30 (18-47)	27 (15-42)	23 (13-38)	20 (11-34)
4	60 (45-74)	52 (38-68)	47 (33-64)	42 (28-58)	37 (24-53)	33 (21-48)	29 (18-43)
5	74 (64-82)	67 (56-76)	61 (50-72)	55 (45-66)	50 (40-61)	45 (35-55)	40 (31-50)
6	85	80	75	70	64	58	53

Age = 70 years

Number of CRFs	BMI (kg/m²)						
	15	20	25	30	35	40	45
0	19	16	14	12	10	8.9	7.7
1	28 (22-33)	23 (18-28)	20 (15-25)	17 (13-22)	15 (11-19)	13 (9.6-16)	11 (8.2-14)
2	40 (29-52)	33 (23-43)	28 (19-38)	25 (16-33)	21 (14-29)	18 (12-26)	16 (10-22)
3	56 (41-70)	47 (33-62)	40 (27-55)	35 (23-49)	30 (20-43)	26 (17-38)	23 (14-33)
4	70 (59-81)	62 (50-76)	53 (42-69)	47 (36-62)	42 (31-56)	36 (27-50)	32 (23-44)
5	82 (78-87)	76 (70-84)	69 (61-77)	62 (54-72)	56 (48-65)	49 (41-59)	43 (36-53)
6	88	86	82	77	71	64	58

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

Age = 75 years

Number of CRFs	BMI (kg/m²)						
	15	20	25	30	35	40	45
0	24	20	17	15	13	11	9.4
1	37 (28-49)	30 (23-38)	25 (19-29)	22 (16-26)	18 (14-22)	16 (12-19)	13 (10-17)
2	52 (37-67)	44 (30-57)	36 (25-46)	31 (21-40)	27 (18-34)	23 (15-29)	19 (13-25)
3	66 (52-80)	59 (43-74)	50 (35-66)	44 (30-58)	38 (25-51)	33 (21-45)	28 (18-39)
4	78 (65-86)	73 (59-84)	66 (52-79)	59 (45-73)	52 (39-66)	46 (33-59)	39 (28-52)
5	84 (78-88)	83 (75-88)	80 (71-86)	74 (64-82)	68 (58-76)	61 (51-70)	54 (45-63)
6	88	88	88	85	81	75	69

Age = 80 years

Number of CRFs	BMI (kg/m²)						
	15	20	25	30	35	40	45
0	29	24	20	17	14	12	10
1	41 (33-56)	35 (27-47)	30 (23-38)	25 (19-32)	21 (16-26)	18 (13-22)	15 (11-18)
2	55 (42-70)	49 (36-63)	42 (30-55)	36 (25-47)	31 (21-40)	26 (17-34)	22 (15-29)
3	67 (53-78)	63 (49-75)	56 (42-69)	49 (36-63)	43 (30-55)	37 (25-48)	31 (21-41)
4	76 (64-83)	74 (62-82)	70 (57-80)	63 (50-75)	57 (44-69)	50 (37-62)	43 (32-55)
5	82 (74-85)	81 (73-86)	80 (71-85)	75 (65-82)	70 (58-77)	63 (52-72)	57 (45-65)
6	85	86	86	83	79	75	69

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

Age = 85 years

Number of CRFs	BMI (kg/m²)						
	15	20	25	30	35	40	45
0	29	25	21	18	15	12	10
1	42 (33-57)	37 (28-51)	31 (24-42)	26 (20-35)	22 (16-29)	18 (13-24)	15 (11-20)
2	54 (42-69)	50 (37-65)	44 (31-58)	38 (26-50)	32 (22-43)	27 (18-36)	22 (15-30)
3	65 (51-77)	62 (48-75)	58 (44-71)	51 (37-64)	44 (31-57)	38 (26-50)	32 (21-43)
4	74 (62-82)	72 (60-81)	70 (57-79)	64 (50-74)	57 (44-69)	50 (37-63)	44 (31-56)
5	79 (72-82)	79 (71-83)	78 (69-84)	74 (63-80)	69 (57-76)	63 (50-71)	56 (43-65)
6	80	83	84	81	78	73	68

Age = 90 years

Number of CRFs	BMI (kg/m²)						
	15	20	25	30	35	40	45
0	25	22	19	16	13	11	8.7
1	37 (29-53)	32 (24-46)	28 (21-39)	23 (17-32)	19 (14-27)	16 (11-22)	13 (9.1-18)
2	50 (38-66)	45 (32-61)	40 (28-54)	34 (23-46)	28 (19-39)	23 (15-33)	19 (12-27)
3	62 (48-74)	58 (43-71)	53 (38-66)	46 (32-59)	39 (27-52)	33 (22-45)	28 (18-38)
4	70 (59-79)	69 (55-78)	65 (51-76)	59 (44-70)	52 (38-64)	45 (32-57)	39 (26-50)
5	74 (69-77)	76 (67-80)	75 (64-81)	70 (57-77)	65 (51-73)	58 (44-67)	51 (37-60)
6	70	78	81	78	75	70	64