

Canada - 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 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 Canada. 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	14	9.4	6.9	5.3	4.3	3.7	3.2	2.9	2.8	2.7	2.6
1	21 (18-26)	14 (12-18)	10 (8.2-13)	8.0 (6.0-10)	6.5 (4.6-8.5)	5.5 (3.7-7.4)	4.8 (3.2-6.5)	4.4 (2.9-6.1)	4.2 (2.7-5.8)	4.0 (2.6-5.6)	3.9 (2.5-5.4)
2	31 (25-42)	21 (16-29)	15 (11-22)	12 (7.6-18)	9.7 (5.7-15)	8.2 (4.6-13)	7.1 (3.8-12)	6.5 (3.4-11)	6.2 (3.2-11)	5.9 (3.1-10)	5.7 (2.9-10)
3	43 (32-54)	30 (22-42)	22 (14-34)	17 (10-28)	14 (7.5-24)	12 (6.0-21)	10 (4.9-19)	9.4 (4.4-18)	8.9 (4.1-17)	8.6 (3.9-16)	8.3 (3.8-16)
4	57 (41-68)	42 (29-51)	31 (21-42)	24 (16-35)	20 (12-30)	17 (9.8-27)	14 (8.1-24)	13 (7.2-22)	13 (6.7-21)	12 (6.4-21)	12 (6.1-20)
5	72 (61-79)	56 (45-61)	43 (34-50)	33 (26-41)	27 (21-35)	23 (18-31)	20 (15-27)	18 (13-26)	18 (12-25)	17 (12-24)	16 (11-23)
6	85	70	56	45	37	31	27	25	24	23	22

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

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	17	12	9.4	7.4	6.1	5.2	4.5	4.2	3.9	3.7	3.5
1	25 (22-30)	18 (15-22)	14 (11-17)	11 (8.2-14)	9.1 (6.4-12)	7.7 (5.3-10)	6.6 (4.4-9.1)	6.2 (4.1-8.6)	5.8 (3.8-8.1)	5.5 (3.6-7.8)	5.3 (3.4-7.4)
2	35 (29-46)	26 (20-35)	20 (14-28)	16 (10-24)	13 (8.0-21)	11 (6.4-18)	9.7 (5.3-16)	9.0 (4.8-15)	8.5 (4.5-14)	8.1 (4.2-14)	7.7 (4.0-13)
3	48 (38-60)	37 (27-50)	28 (19-42)	23 (14-36)	19 (10-32)	16 (8.3-28)	14 (6.9-25)	13 (6.3-23)	12 (5.8-22)	12 (5.4-21)	11 (5.1-20)
4	62 (48-71)	49 (36-60)	39 (28-52)	31 (22-45)	26 (17-39)	22 (14-35)	19 (11-31)	18 (10-29)	17 (9.3-28)	16 (8.7-27)	15 (8.3-26)
5	76 (68-80)	63 (54-69)	51 (43-59)	42 (34-51)	35 (29-45)	30 (24-40)	26 (20-35)	24 (18-33)	23 (16-32)	22 (15-31)	21 (15-29)
6	87	76	64	54	46	40	35	33	31	30	28

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	21	16	12	9.7	7.9	6.6	5.8	5.4	5.0	4.7	4.4
1	30 (27-34)	23 (19-26)	18 (14-21)	14 (11-18)	12 (8.3-15)	9.7 (6.7-13)	8.6 (5.8-12)	7.9 (5.3-11)	7.4 (4.8-10)	6.9 (4.5-9.7)	6.5 (4.2-9.1)
2	41 (34-51)	32 (25-41)	25 (18-34)	20 (13-29)	17 (10-25)	14 (8.2-22)	12 (7.0-20)	11 (6.3-19)	11 (5.7-17)	9.9 (5.3-16)	9.3 (5.0-16)
3	55 (44-67)	43 (32-58)	34 (23-50)	28 (17-43)	23 (13-38)	20 (11-33)	17 (9.0-30)	16 (8.1-28)	15 (7.4-27)	14 (6.8-25)	13 (6.4-24)
4	68 (55-77)	56 (44-68)	46 (35-60)	38 (28-52)	32 (21-46)	27 (17-41)	24 (14-37)	22 (13-35)	21 (12-33)	19 (11-31)	18 (10-30)
5	80 (74-84)	69 (62-76)	58 (51-67)	49 (42-59)	42 (35-52)	36 (28-46)	32 (24-42)	30 (22-40)	28 (20-38)	26 (18-36)	25 (17-34)
6	89	81	71	61	53	46	42	39	37	35	33

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

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	24	18	14	11	9.1	7.5	6.7	6.1	5.6	5.1	4.8
1	34 (30-38)	26 (22-30)	20 (16-24)	16 (12-20)	13 (9.7-17)	11 (7.7-15)	9.8 (6.7-13)	8.9 (6.0-12)	8.1 (5.4-11)	7.5 (5.0-11)	6.9 (4.6-9.8)
2	46 (39-55)	36 (29-45)	29 (21-38)	23 (16-32)	19 (12-28)	16 (9.5-24)	14 (8.1-22)	13 (7.2-20)	12 (6.5-19)	11 (5.9-17)	9.9 (5.4-16)
3	59 (49-71)	48 (37-62)	38 (27-54)	31 (20-47)	26 (16-41)	22 (12-35)	19 (11-33)	18 (9.3-30)	16 (8.3-28)	15 (7.5-27)	14 (6.9-25)
4	71 (60-80)	60 (49-72)	50 (39-63)	41 (32-56)	35 (25-49)	29 (20-43)	26 (17-40)	24 (15-37)	22 (13-35)	21 (12-33)	19 (11-31)
5	82 (77-86)	72 (67-79)	62 (56-71)	53 (47-63)	45 (38-56)	38 (31-49)	35 (27-46)	32 (24-43)	30 (21-40)	28 (20-37)	26 (18-35)
6	89	82	74	65	57	49	45	42	39	36	34

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	28	21	16	13	10	8.6	7.6	6.7	6.0	5.5	5.0
1	39 (34-45)	30 (25-35)	23 (19-27)	18 (14-21)	14 (11-17)	12 (8.9-14)	10 (7.6-12)	9.2 (6.7-11)	8.3 (5.9-9.8)	7.5 (5.3-8.9)	6.8 (4.8-8.1)
2	52 (43-62)	41 (33-51)	32 (24-41)	25 (18-32)	20 (14-26)	16 (11-21)	14 (9.4-19)	13 (8.1-17)	11 (7.1-15)	10 (6.3-14)	9.2 (5.6-13)
3	66 (54-77)	54 (42-66)	43 (31-56)	34 (24-46)	27 (18-38)	22 (14-32)	19 (12-29)	17 (10-26)	15 (9.1-23)	14 (8.1-21)	12 (7.3-19)
4	78 (69-84)	67 (57-76)	56 (45-66)	45 (35-56)	36 (28-47)	30 (22-40)	26 (19-36)	23 (16-32)	20 (14-29)	18 (13-26)	16 (11-24)
5	86 (82-89)	79 (73-83)	69 (62-75)	58 (51-65)	47 (41-55)	39 (34-47)	34 (29-42)	30 (25-37)	26 (22-34)	23 (20-31)	21 (18-28)
6	91	87	80	71	60	51	44	38	34	30	27

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

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	32	25	19	15	12	10	8.9	7.7	6.8	6.1	5.4
1	45 (38-63)	36 (29-50)	28 (22-38)	22 (17-29)	17 (13-22)	14 (11-17)	12 (9.0-14)	10 (7.7-12)	9.1 (6.7-11)	8.0 (5.9-9.5)	7.1 (5.2-8.5)
2	60 (47-77)	49 (37-67)	39 (29-55)	31 (22-43)	24 (17-33)	20 (13-27)	17 (11-22)	14 (9.5-18)	12 (8.1-16)	10 (7.1-15)	9.2 (6.2-13)
3	73 (58-84)	63 (47-77)	53 (36-67)	43 (28-56)	33 (22-45)	27 (18-37)	23 (15-31)	19 (12-26)	16 (11-22)	14 (9.1-19)	12 (8.0-17)
4	82 (70-88)	76 (59-84)	67 (49-77)	56 (39-67)	46 (31-55)	37 (26-46)	31 (22-39)	26 (19-33)	21 (16-28)	18 (14-24)	16 (12-21)
5	88 (80-91)	84 (73-88)	78 (64-83)	70 (54-76)	59 (44-65)	50 (37-56)	41 (32-48)	34 (28-40)	29 (24-34)	24 (21-29)	20 (17-25)
6	90	89	86	81	73	64	54	45	38	32	27

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	36	29	23	18	15	13	11	9.5	8.2	7.2	6.3
1	48 (40-65)	40 (32-55)	32 (25-44)	26 (20-35)	21 (16-27)	17 (13-22)	15 (11-18)	13 (9.4-15)	11 (8.0-13)	9.5 (6.9-11)	8.3 (6.0-9.7)
2	61 (50-76)	52 (41-68)	43 (32-59)	35 (25-49)	29 (20-40)	24 (17-33)	20 (14-27)	17 (12-22)	15 (9.9-19)	12 (8.5-16)	11 (7.3-15)
3	71 (59-82)	64 (50-76)	55 (41-68)	46 (32-59)	38 (26-50)	32 (22-43)	27 (18-36)	23 (15-31)	19 (13-26)	16 (11-22)	14 (9.4-19)
4	79 (68-85)	74 (60-82)	67 (51-76)	59 (42-68)	50 (35-60)	43 (29-52)	36 (25-45)	30 (21-38)	26 (19-33)	22 (16-28)	18 (14-24)
5	85 (76-88)	81 (70-85)	76 (63-82)	70 (55-76)	62 (47-69)	55 (41-61)	47 (35-54)	40 (31-46)	34 (27-40)	28 (23-34)	24 (21-29)
6	88	86	83	79	73	66	59	51	44	37	31

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

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	38	31	26	21	18	15	13	11	9.8	8.5	7.4
1	49 (40-63)	41 (33-55)	34 (27-46)	28 (22-38)	24 (18-32)	21 (15-26)	18 (13-22)	15 (11-18)	13 (9.4-15)	11 (8.1-13)	9.7 (7.0-11)
2	59 (48-72)	52 (41-66)	45 (34-58)	37 (27-50)	32 (23-43)	28 (19-37)	24 (16-31)	20 (14-27)	17 (12-22)	15 (10-19)	13 (8.5-16)
3	69 (57-78)	62 (49-73)	55 (42-67)	48 (34-60)	42 (29-53)	36 (25-47)	31 (21-41)	27 (18-35)	23 (15-31)	19 (13-26)	17 (11-23)
4	76 (65-82)	71 (59-79)	65 (51-74)	59 (44-68)	52 (38-62)	46 (33-56)	40 (29-49)	35 (25-44)	30 (21-38)	26 (19-33)	22 (16-29)
5	81 (72-85)	78 (67-83)	74 (61-79)	68 (54-75)	63 (48-70)	57 (43-64)	51 (38-58)	45 (34-52)	39 (30-46)	33 (26-40)	29 (23-35)
6	85	83	80	77	72	67	62	55	49	43	37

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	34	28	23	19	17	14	12	11	9.2	7.9	6.8
1	43 (34-56)	37 (28-49)	31 (23-41)	26 (19-35)	23 (17-30)	19 (14-25)	17 (12-22)	14 (10-18)	12 (8.8-15)	11 (7.6-13)	9.1 (6.5-11)
2	53 (42-65)	47 (35-59)	40 (29-52)	34 (24-46)	30 (21-40)	26 (18-35)	22 (15-30)	19 (13-26)	17 (11-22)	14 (9.4-19)	12 (8.0-16)
3	62 (50-73)	57 (43-67)	50 (37-61)	44 (31-55)	39 (27-50)	34 (23-44)	30 (20-39)	26 (17-34)	22 (14-30)	19 (12-26)	16 (10-22)
4	70 (59-78)	66 (52-74)	60 (46-69)	54 (40-64)	49 (35-58)	44 (31-53)	39 (27-48)	34 (23-42)	29 (20-37)	25 (17-32)	22 (15-28)
5	77 (66-81)	73 (61-78)	69 (55-75)	64 (49-71)	59 (45-66)	54 (40-61)	49 (36-56)	44 (31-51)	38 (28-45)	33 (24-40)	29 (21-35)
6	80	79	76	73	69	65	60	54	49	43	37