

Japan - The probabilities of a hip fracture in women

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 Japan. 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 | 6.7 | 3.5 | 1.8 | 0.9 | 0.5 | 0.2 | 0.1 | 0.1 | 0.0 | 0.0 | 0.0 |
| 1 | 11 (7.1-14) | 5.6 (3.7-7.3) | 2.9 (1.9-3.8) | 1.5 (1.0-1.9) | 0.8 (0.5-1.0) | 0.4 (0.3-0.5) | 0.2 (0.1-0.3) | 0.1 (0.1-0.1) | 0.1 (0.0-0.1) | 0.0 (0.0-0.0) | 0.0 (0.0-0.0) |
| 2 | 17 (9.9-24) | 8.9 (5.2-13) | 4.6 (2.7-7.0) | 2.4 (1.4-3.6) | 1.2 (0.7-1.9) | 0.6 (0.4-1.0) | 0.3 (0.2-0.5) | 0.2 (0.1-0.3) | 0.1 (0.1-0.1) | 0.0 (0.0-0.1) | 0.0 (0.0-0.0) |
| 3 | 25 (15-39) | 14 (7.8-22) | 7.3 (4.0-12) | 3.8 (2.1-6.2) | 1.9 (1.1-3.2) | 1.0 (0.5-1.7) | 0.5 (0.3-0.8) | 0.3 (0.1-0.4) | 0.1 (0.1-0.2) | 0.1 (0.0-0.1) | 0.0 (0.0-0.1) |
| 4 | 36 (24-52) | 21 (13-32) | 11 (6.9-18) | 5.9 (3.6-9.4) | 3.0 (1.8-4.9) | 1.6 (0.9-2.5) | 0.8 (0.5-1.3) | 0.4 (0.3-0.7) | 0.2 (0.1-0.4) | 0.1 (0.1-0.2) | 0.1 (0.0-0.1) |
| 5 | 50 (40-65) | 30 (23-42) | 17 (13-24) | 9.1 (6.7-13) | 4.7 (3.4-6.9) | 2.4 (1.8-3.6) | 1.2 (0.9-1.8) | 0.7 (0.5-1.0) | 0.3 (0.3-0.5) | 0.2 (0.1-0.3) | 0.1 (0.1-0.1) |
| 6 | 67 | 43 | 25 | 14 | 7.2 | 3.7 | 1.9 | 1.0 | 0.5 | 0.3 | 0.2 |

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

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 | 6.7 | 3.7 | 2.0 | 1.1 | 0.6 | 0.3 | 0.2 | 0.1 | 0.1 | 0.0 | 0.0 |
| 1 | 10 (7.0-13) | 5.8 (3.8-7.1) | 3.1 (2.1-3.9) | 1.7 (1.1-2.1) | 0.9 (0.6-1.1) | 0.5 (0.3-0.6) | 0.3 (0.2-0.3) | 0.1 (0.1-0.2) | 0.1 (0.1-0.1) | 0.0 (0.0-0.1) | 0.0 (0.0-0.0) |
| 2 | 16 (9.9-23) | 9.0 (5.4-13) | 4.9 (2.9-7.1) | 2.7 (1.6-3.9) | 1.4 (0.9-2.1) | 0.8 (0.5-1.1) | 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 | 24 (15-36) | 14 (8.1-21) | 7.6 (4.5-12) | 4.2 (2.4-6.6) | 2.3 (1.3-3.6) | 1.2 (0.7-2.0) | 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) |
| 4 | 34 (24-49) | 20 (14-31) | 12 (7.6-18) | 6.4 (4.2-10) | 3.5 (2.2-5.5) | 1.9 (1.2-3.0) | 1.0 (0.7-1.6) | 0.6 (0.4-0.9) | 0.3 (0.2-0.5) | 0.2 (0.1-0.3) | 0.1 (0.1-0.2) |
| 5 | 48 (40-61) | 30 (24-40) | 17 (14-24) | 9.7 (7.7-14) | 5.3 (4.2-7.7) | 2.9 (2.3-4.2) | 1.6 (1.2-2.3) | 0.9 (0.7-1.3) | 0.5 (0.4-0.7) | 0.3 (0.2-0.4) | 0.1 (0.1-0.2) |
| 6 | 63 | 42 | 25 | 15 | 8.1 | 4.4 | 2.4 | 1.3 | 0.7 | 0.4 | 0.2 |

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 | 8.1 | 4.6 | 2.6 | 1.5 | 0.8 | 0.5 | 0.3 | 0.2 | 0.1 | 0.1 | 0.0 |
| 1 | 12 (8.6-15) | 7.1 (4.9-8.5) | 4.0 (2.7-4.8) | 2.3 (1.5-2.7) | 1.3 (0.9-1.5) | 0.7 (0.5-0.8) | 0.4 (0.3-0.5) | 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 | 19 (12-25) | 11 (6.8-15) | 6.2 (3.9-8.6) | 3.5 (2.2-4.9) | 2.0 (1.2-2.7) | 1.1 (0.7-1.5) | 0.6 (0.4-0.9) | 0.4 (0.2-0.5) | 0.2 (0.1-0.3) | 0.1 (0.1-0.2) | 0.1 (0.0-0.1) |
| 3 | 27 (18-39) | 16 (10-24) | 9.5 (5.8-14) | 5.4 (3.3-8.2) | 3.0 (1.8-4.7) | 1.7 (1.0-2.6) | 1.0 (0.6-1.5) | 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 | 38 (28-53) | 24 (17-34) | 14 (9.9-21) | 8.2 (5.6-12) | 4.6 (3.2-7.1) | 2.6 (1.8-4.0) | 1.5 (1.0-2.3) | 0.9 (0.6-1.3) | 0.5 (0.3-0.8) | 0.3 (0.2-0.4) | 0.2 (0.1-0.3) |
| 5 | 52 (45-65) | 34 (29-45) | 21 (17-28) | 12 (10-17) | 7.0 (5.7-9.9) | 3.9 (3.2-5.6) | 2.3 (1.8-3.2) | 1.3 (1.1-1.9) | 0.8 (0.6-1.1) | 0.4 (0.4-0.6) | 0.3 (0.2-0.4) |
| 6 | 67 | 46 | 30 | 18 | 10 | 5.9 | 3.4 | 2.0 | 1.1 | 0.7 | 0.4 |

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

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 | 9.9 | 5.9 | 3.4 | 2.0 | 1.2 | 0.7 | 0.4 | 0.2 | 0.1 | 0.1 | 0.1 |
| 1 | 15 (10-18) | 8.9 (6.2-11) | 5.2 (3.6-6.3) | 3.1 (2.1-3.7) | 1.8 (1.2-2.2) | 1.0 (0.7-1.3) | 0.6 (0.4-0.8) | 0.4 (0.3-0.5) | 0.2 (0.2-0.3) | 0.1 (0.1-0.2) | 0.1 (0.1-0.1) |
| 2 | 22 (14-28) | 13 (8.6-17) | 7.9 (5.1-11) | 4.7 (3.0-6.2) | 2.7 (1.7-3.7) | 1.6 (1.0-2.1) | 1.0 (0.6-1.3) | 0.6 (0.4-0.8) | 0.3 (0.2-0.5) | 0.2 (0.1-0.3) | 0.1 (0.1-0.2) |
| 3 | 31 (21-42) | 19 (13-27) | 12 (7.7-17) | 7.0 (4.5-10) | 4.1 (2.6-6.1) | 2.4 (1.5-3.6) | 1.4 (0.9-2.2) | 0.9 (0.6-1.3) | 0.5 (0.3-0.8) | 0.3 (0.2-0.5) | 0.2 (0.1-0.3) |
| 4 | 42 (33-56) | 28 (21-38) | 17 (13-25) | 10 (7.5-15) | 6.2 (4.4-9.1) | 3.6 (2.6-5.4) | 2.2 (1.5-3.3) | 1.3 (0.9-2.0) | 0.8 (0.6-1.2) | 0.5 (0.3-0.7) | 0.3 (0.2-0.4) |
| 5 | 56 (49-68) | 38 (33-49) | 25 (21-33) | 15 (12-21) | 9.1 (7.4-13) | 5.4 (4.4-7.6) | 3.3 (2.6-4.6) | 2.0 (1.6-2.8) | 1.2 (1.0-1.7) | 0.7 (0.6-1.0) | 0.4 (0.4-0.6) |
| 6 | 70 | 51 | 34 | 22 | 13 | 7.9 | 4.8 | 2.9 | 1.8 | 1.1 | 0.6 |

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 | 13 | 8.1 | 4.9 | 3.0 | 1.8 | 1.1 | 0.7 | 0.4 | 0.3 | 0.2 | 0.1 |
| 1 | 21 (18-26) | 13 (11-16) | 8.2 (7.0-10) | 5.0 (4.3-6.3) | 3.1 (2.6-3.9) | 1.9 (1.6-2.4) | 1.2 (1.0-1.5) | 0.7 (0.6-0.9) | 0.5 (0.4-0.6) | 0.3 (0.2-0.4) | 0.2 (0.2-0.2) |
| 2 | 32 (26-41) | 21 (17-28) | 13 (10-18) | 8.4 (6.4-11) | 5.1 (3.9-7.0) | 3.2 (2.4-4.4) | 2.0 (1.5-2.8) | 1.3 (1.0-1.7) | 0.8 (0.6-1.1) | 0.5 (0.4-0.7) | 0.3 (0.2-0.4) |
| 3 | 47 (37-58) | 33 (24-42) | 21 (16-28) | 14 (9.8-18) | 8.5 (6.0-12) | 5.3 (3.7-7.3) | 3.4 (2.3-4.6) | 2.1 (1.5-2.9) | 1.3 (0.9-1.8) | 0.8 (0.6-1.2) | 0.5 (0.4-0.7) |
| 4 | 64 (53-72) | 48 (37-56) | 33 (25-40) | 22 (16-27) | 14 (10-17) | 8.7 (6.2-11) | 5.6 (4.0-7.1) | 3.5 (2.5-4.5) | 2.2 (1.6-2.9) | 1.4 (1.0-1.8) | 0.9 (0.6-1.1) |
| 5 | 79 (72-82) | 64 (56-69) | 48 (40-53) | 33 (27-37) | 22 (17-25) | 14 (11-16) | 9.1 (7.2-11) | 5.8 (4.6-6.8) | 3.7 (2.9-4.3) | 2.3 (1.8-2.7) | 1.5 (1.1-1.7) |
| 6 | 88 | 79 | 65 | 48 | 33 | 22 | 15 | 9.5 | 6.1 | 3.9 | 2.4 |

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

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 | 17 | 11 | 7.2 | 4.6 | 2.9 | 1.9 | 1.3 | 0.8 | 0.5 | 0.4 | 0.2 |
| 1 | 30 (23-54) | 21 (15-40) | 14 (10-28) | 9.1 (6.5-19) | 5.8 (4.1-12) | 3.9 (2.7-8.1) | 2.6 (1.8-5.4) | 1.7 (1.2-3.6) | 1.1 (0.8-2.4) | 0.7 (0.5-1.5) | 0.5 (0.3-1.0) |
| 2 | 47 (31-72) | 34 (21-58) | 24 (14-43) | 16 (9.1-31) | 11 (5.9-21) | 7.3 (3.9-14) | 4.9 (2.6-9.6) | 3.2 (1.7-6.4) | 2.1 (1.1-4.3) | 1.4 (0.7-2.8) | 0.9 (0.5-1.9) |
| 3 | 64 (43-82) | 51 (30-72) | 39 (21-58) | 28 (14-44) | 19 (8.8-32) | 13 (5.8-22) | 8.8 (3.9-15) | 5.9 (2.6-10) | 3.9 (1.7-7.0) | 2.6 (1.1-4.7) | 1.7 (0.7-3.1) |
| 4 | 79 (59-88) | 69 (44-81) | 56 (31-71) | 43 (21-57) | 31 (14-43) | 22 (9.6-32) | 15 (6.4-22) | 10 (4.2-15) | 7.0 (2.8-10) | 4.6 (1.9-7.0) | 3.1 (1.2-4.7) |
| 5 | 87 (74-91) | 82 (62-87) | 73 (48-80) | 61 (34-69) | 47 (24-54) | 35 (16-41) | 25 (11-30) | 18 (7.5-21) | 12 (5.0-15) | 8.1 (3.3-9.9) | 5.4 (2.2-6.6) |
| 6 | 91 | 90 | 86 | 78 | 66 | 52 | 39 | 29 | 20 | 14 | 9.3 |

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 | 19 | 13 | 9.1 | 6.1 | 4.1 | 2.9 | 2.0 | 1.4 | 0.9 | 0.6 | 0.4 |
| 1 | 33 (25-58) | 24 (17-45) | 17 (12-33) | 12 (8.0-24) | 8.0 (5.4-17) | 5.6 (3.8-12) | 3.9 (2.6-8.3) | 2.7 (1.8-5.8) | 1.9 (1.2-4.0) | 1.3 (0.8-2.8) | 0.9 (0.6-1.9) |
| 2 | 49 (33-73) | 38 (23-62) | 28 (16-49) | 20 (11-37) | 14 (7.6-27) | 10 (5.3-20) | 7.2 (3.7-14) | 5.0 (2.5-10) | 3.5 (1.7-7.1) | 2.4 (1.2-4.9) | 1.7 (0.8-3.4) |
| 3 | 64 (45-82) | 54 (33-74) | 43 (24-62) | 32 (16-50) | 24 (11-39) | 18 (8.0-30) | 13 (5.5-22) | 9.0 (3.8-16) | 6.3 (2.7-11) | 4.4 (1.8-7.9) | 3.0 (1.3-5.5) |
| 4 | 77 (58-86) | 69 (46-81) | 59 (34-73) | 48 (25-63) | 37 (18-51) | 28 (13-41) | 21 (8.9-31) | 15 (6.2-23) | 11 (4.3-17) | 7.6 (3.0-12) | 5.3 (2.1-8.3) |
| 5 | 85 (72-89) | 81 (61-85) | 74 (50-80) | 64 (38-72) | 53 (28-62) | 43 (21-51) | 33 (15-40) | 25 (11-31) | 18 (7.5-23) | 13 (5.3-16) | 9.1 (3.7-12) |
| 6 | 89 | 88 | 84 | 78 | 70 | 60 | 48 | 38 | 28 | 21 | 15 |

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

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 | 19 | 14 | 10 | 7.1 | 5.2 | 3.8 | 2.7 | 2.0 | 1.4 | 1.0 | 0.8 |
| 1 | 32 (24-56) | 24 (18-45) | 18 (13-35) | 13 (9.2-27) | 9.8 (6.7-20) | 7.2 (4.9-15) | 5.3 (3.6-11) | 3.9 (2.6-8.4) | 2.8 (1.9-6.1) | 2.1 (1.4-4.5) | 1.5 (1.0-3.3) |
| 2 | 46 (32-69) | 37 (24-60) | 29 (18-50) | 22 (13-40) | 17 (9.4-32) | 13 (6.9-24) | 9.6 (5.1-19) | 7.1 (3.7-14) | 5.3 (2.7-10) | 3.8 (2.0-7.7) | 2.8 (1.4-5.7) |
| 3 | 61 (43-78) | 52 (34-71) | 43 (25-62) | 35 (19-52) | 27 (14-43) | 21 (10-34) | 16 (7.6-27) | 12 (5.6-21) | 9.2 (4.1-16) | 6.8 (3.0-12) | 5.0 (2.1-8.8) |
| 4 | 73 (55-83) | 66 (45-78) | 58 (35-71) | 49 (27-62) | 41 (21-54) | 33 (16-45) | 26 (12-37) | 20 (8.7-29) | 15 (6.4-23) | 12 (4.7-17) | 8.6 (3.4-13) |
| 5 | 81 (66-86) | 77 (58-82) | 71 (49-77) | 64 (39-71) | 56 (31-64) | 48 (24-55) | 39 (19-47) | 31 (14-38) | 25 (11-30) | 19 (7.9-23) | 14 (5.9-18) |
| 6 | 86 | 84 | 81 | 76 | 70 | 63 | 55 | 46 | 37 | 29 | 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 | 16 | 12 | 9.1 | 6.9 | 5.3 | 4.1 | 3.2 | 2.4 | 1.9 | 1.4 | 1.1 |
| 1 | 27 (20-49) | 21 (16-40) | 16 (12-33) | 13 (8.9-26) | 10 (7.0-21) | 7.8 (5.4-16) | 6.1 (4.1-13) | 4.7 (3.2-10) | 3.6 (2.4-7.8) | 2.8 (1.9-6.0) | 2.1 (1.4-4.6) |
| 2 | 40 (27-61) | 33 (21-53) | 26 (16-45) | 21 (12-38) | 17 (9.7-31) | 14 (7.5-25) | 11 (5.8-20) | 8.4 (4.5-16) | 6.6 (3.5-13) | 5.1 (2.6-10) | 3.9 (2.0-7.8) |
| 3 | 54 (36-71) | 47 (29-65) | 39 (23-57) | 33 (18-49) | 27 (14-42) | 22 (11-35) | 18 (8.7-29) | 14 (6.8-23) | 11 (5.2-19) | 8.8 (4.0-15) | 6.9 (3.1-12) |
| 4 | 66 (47-77) | 60 (39-72) | 53 (32-66) | 46 (25-59) | 40 (21-52) | 34 (16-45) | 28 (13-38) | 23 (10-32) | 18 (7.9-26) | 15 (6.2-21) | 12 (4.8-17) |
| 5 | 76 (58-81) | 72 (51-77) | 66 (43-72) | 60 (36-67) | 54 (30-61) | 48 (25-55) | 41 (20-48) | 34 (16-41) | 28 (13-34) | 23 (10-28) | 19 (7.8-23) |
| 6 | 82 | 80 | 77 | 73 | 68 | 62 | 56 | 49 | 42 | 35 | 29 |