**The UK - The probabilities of a major osteoporotic fracture in men**

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 the UK. 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 | 2.8 | 2.7 | 2.7 | 2.4 | 2.1 | 1.8 | 1.6 |
| 1 | 4.5 (3.0-6.5) | 4.3 (2.9-6.0) | 4.2 (2.8-5.7) | 3.7 (2.5-5.0) | 3.2 (2.1-4.4) | 2.8 (1.9-3.8) | 2.5 (1.6-3.3) |
| 2 | 7.0 (3.7-12) | 6.6 (3.5-11) | 6.4 (3.4-11) | 5.6 (2.9-9.8) | 4.9 (2.6-8.6) | 4.3 (2.2-7.6) | 3.7 (2.0-6.6) |
| 3 | 11 (5.3-18) | 9.9 (4.8-18) | 9.6 (4.6-17) | 8.4 (4.0-15) | 7.3 (3.5-13) | 6.4 (3.0-12) | 5.6 (2.6-10) |
| 4 | 16 (8.8-25) | 15 (7.9-24) | 14 (7.4-23) | 12 (6.4-20) | 11 (5.6-18) | 9.4 (4.8-16) | 8.2 (4.2-14) |
| 5 | 24 (15-31) | 21 (14-28) | 20 (14-27) | 18 (12-24) | 16 (11-21) | 14 (9.3-19) | 12 (8.2-16) |
| 6 | 34 | 30 | 28 | 25 | 22 | 19 | 17 |

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# FRAX® WHO Fracture Risk Assessment Tool

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

**Age = 55 years**

| Number of CRFs | BMI (kg/m²) | | | | | | |
|---|---|---|---|---|---|---|---|
| | 15 | 20 | 25 | 30 | 35 | 40 | 45 |
| 0 | 3.5 | 3.3 | 3.3 | 2.8 | 2.5 | 2.2 | 1.9 |
| 1 | 5.5 (3.7-7.8) | 5.2 (3.5-7.1) | 5.0 (3.4-6.8) | 4.4 (2.9-5.9) | 3.8 (2.6-5.1) | 3.3 (2.2-4.5) | 2.9 (1.9-3.9) |
| 2 | 8.5 (4.7-14) | 7.9 (4.3-13) | 7.6 (4.1-13) | 6.6 (3.6-11) | 5.8 (3.1-10) | 5.0 (2.7-8.7) | 4.4 (2.3-7.7) |
| 3 | 13 (6.9-21) | 12 (6.1-20) | 11 (5.7-20) | 9.8 (4.9-18) | 8.6 (4.2-15) | 7.5 (3.7-13) | 6.5 (3.2-12) |
| 4 | 19 (11-29) | 17 (9.9-27) | 16 (9.1-26) | 14 (7.8-23) | 13 (6.7-20) | 11 (5.8-18) | 9.5 (5.0-16) |
| 5 | 28 (18-35) | 25 (17-33) | 23 (17-31) | 21 (14-27) | 18 (13-24) | 16 (11-21) | 14 (9.6-19) |
| 6 | 39 | 35 | 33 | 29 | 25 | 22 | 19 |

**Age = 60 years**

| Number of CRFs | BMI (kg/m²) | | | | | | |
|---|---|---|---|---|---|---|---|
| | 15 | 20 | 25 | 30 | 35 | 40 | 45 |
| 0 | 4.1 | 3.9 | 3.8 | 3.3 | 2.9 | 2.5 | 2.2 |
| 1 | 6.5 (4.5-9.1) | 6.1 (4.2-8.3) | 5.9 (4.0-7.8) | 5.1 (3.4-6.8) | 4.4 (3.0-5.8) | 3.8 (2.6-5.1) | 3.3 (2.2-4.4) |
| 2 | 9.9 (5.9-15) | 9.2 (5.3-15) | 8.8 (4.9-15) | 7.6 (4.2-13) | 6.6 (3.6-11) | 5.7 (3.1-9.7) | 5.0 (2.7-8.5) |
| 3 | 15 (8.8-23) | 14 (7.6-22) | 13 (6.9-22) | 11 (5.9-19) | 9.7 (5.0-17) | 8.4 (4.3-15) | 7.3 (3.7-13) |
| 4 | 22 (14-31) | 20 (12-30) | 19 (11-29) | 16 (9.3-26) | 14 (7.9-22) | 12 (6.8-20) | 11 (5.8-17) |
| 5 | 31 (21-39) | 28 (20-36) | 26 (19-35) | 23 (17-30) | 20 (14-27) | 17 (12-23) | 15 (11-20) |
| 6 | 41 | 38 | 36 | 32 | 28 | 24 | 21 |

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

**Age = 65 years**

| Number of CRFs | BMI (kg/m²) | | | | | | |
|---|---|---|---|---|---|---|---|
| | 15 | 20 | 25 | 30 | 35 | 40 | 45 |
| 0 | 5.1 | 4.9 | 4.9 | 4.2 | 3.6 | 3.1 | 2.7 |
| 1 | 7.8 (5.5-11) | 7.5 (5.2-9.9) | 7.3 (5.0-9.5) | 6.3 (4.3-8.2) | 5.4 (3.7-7.0) | 4.6 (3.1-6.1) | 4.0 (2.7-5.2) |
| 2 | 12 (7.3-17) | 11 (6.7-17) | 11 (6.3-17) | 9.3 (5.3-15) | 8.0 (4.5-13) | 6.9 (3.9-12) | 5.9 (3.3-10) |
| 3 | 17 (11-24) | 16 (9.8-25) | 16 (8.9-25) | 13 (7.5-22) | 12 (6.4-19) | 10 (5.4-17) | 8.6 (4.6-15) |
| 4 | 24 (17-33) | 23 (15-33) | 22 (14-33) | 19 (12-29) | 16 (9.7-25) | 14 (8.2-22) | 12 (6.9-19) |
| 5 | 33 (24-41) | 31 (23-40) | 30 (23-39) | 26 (20-35) | 23 (17-30) | 20 (14-26) | 17 (12-23) |
| 6 | 43 | 41 | 40 | 35 | 31 | 27 | 23 |

**Age = 70 years**

| Number of CRFs | BMI (kg/m²) | | | | | | |
|---|---|---|---|---|---|---|---|
| | 15 | 20 | 25 | 30 | 35 | 40 | 45 |
| 0 | 6.0 | 5.7 | 5.6 | 4.8 | 4.1 | 3.5 | 3.0 |
| 1 | 9.0 (6.4-11) | 8.4 (6.0-11) | 8.1 (5.8-11) | 6.9 (4.9-9.0) | 5.8 (4.1-7.7) | 4.9 (3.5-6.6) | 4.2 (3.0-5.6) |
| 2 | 13 (8.6-20) | 12 (7.9-18) | 12 (7.4-17) | 9.9 (6.2-14) | 8.3 (5.2-12) | 7.0 (4.4-10) | 6.0 (3.7-8.8) |
| 3 | 20 (12-28) | 18 (12-26) | 17 (11-24) | 14 (8.9-21) | 12 (7.5-18) | 10 (6.2-15) | 8.4 (5.2-13) |
| 4 | 28 (19-38) | 26 (17-36) | 24 (16-34) | 20 (13-29) | 17 (11-25) | 14 (9.2-21) | 12 (7.6-18) |
| 5 | 38 (32-47) | 35 (29-44) | 33 (26-41) | 28 (22-36) | 23 (18-31) | 20 (15-26) | 17 (13-22) |
| 6 | 49 | 47 | 44 | 38 | 32 | 27 | 23 |

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

**Age = 75 years**

| Number of CRFs | BMI (kg/m²) | | | | | | |
|---|---|---|---|---|---|---|---|
| | 15 | 20 | 25 | 30 | 35 | 40 | 45 |
| 0 | 6.6 | 6.3 | 6.1 | 5.1 | 4.2 | 3.6 | 3.0 |
| 1 | 10 (7.1-16) | 9.6 (6.7-13) | 9.0 (6.4-11) | 7.4 (5.3-9.1) | 6.2 (4.3-7.6) | 5.1 (3.6-6.4) | 4.2 (3.0-5.4) |
| 2 | 16 (9.8-26) | 15 (9.0-22) | 13 (8.4-19) | 11 (6.8-16) | 9.0 (5.6-13) | 7.4 (4.6-11) | 6.1 (3.8-8.7) |
| 3 | 24 (14-37) | 22 (13-33) | 20 (12-28) | 16 (9.9-23) | 13 (8.0-19) | 11 (6.5-16) | 8.9 (5.3-13) |
| 4 | 35 (21-47) | 32 (19-43) | 28 (18-39) | 24 (15-33) | 19 (12-28) | 16 (9.7-23) | 13 (7.9-19) |
| 5 | 47 (33-56) | 43 (31-53) | 40 (29-49) | 33 (24-42) | 28 (20-36) | 23 (17-30) | 19 (14-25) |
| 6 | 59 | 56 | 52 | 45 | 39 | 32 | 27 |

**Age = 80 years**

| Number of CRFs | BMI (kg/m²) | | | | | | |
|---|---|---|---|---|---|---|---|
| | 15 | 20 | 25 | 30 | 35 | 40 | 45 |
| 0 | 7.7 | 7.4 | 7.2 | 5.9 | 4.8 | 4.0 | 3.3 |
| 1 | 12 (8.3-19) | 11 (7.8-17) | 11 (7.5-15) | 8.7 (6.1-12) | 7.1 (4.9-9.4) | 5.7 (4.0-7.5) | 4.7 (3.2-6.0) |
| 2 | 19 (12-29) | 17 (11-26) | 16 (10-22) | 13 (8.1-18) | 10 (6.5-15) | 8.4 (5.2-12) | 6.8 (4.2-9.6) |
| 3 | 27 (16-39) | 25 (15-36) | 23 (14-32) | 19 (11-27) | 15 (9.0-22) | 12 (7.2-18) | 9.9 (5.8-15) |
| 4 | 38 (23-49) | 34 (22-45) | 32 (21-42) | 26 (17-36) | 22 (14-30) | 18 (11-25) | 14 (8.8-20) |
| 5 | 49 (34-58) | 46 (32-55) | 43 (30-52) | 36 (25-45) | 30 (21-38) | 25 (17-32) | 20 (14-27) |
| 6 | 60 | 57 | 54 | 47 | 41 | 34 | 28 |

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

**Age = 85 years**

| Number of CRFs | BMI (kg/m²) | | | | | | |
|---|---|---|---|---|---|---|---|
| | 15 | 20 | 25 | 30 | 35 | 40 | 45 |
| 0 | 9.3 | 8.8 | 8.6 | 7.0 | 5.6 | 4.6 | 3.7 |
| 1 | 15 (10-24) | 14 (9.3-21) | 13 (9.0-19) | 10 (7.2-15) | 8.4 (5.7-12) | 6.8 (4.6-9.5) | 5.4 (3.6-7.5) |
| 2 | 22 (14-35) | 20 (13-31) | 19 (12-28) | 15 (9.7-23) | 12 (7.7-19) | 10 (6.1-15) | 8.0 (4.9-12) |
| 3 | 32 (20-45) | 29 (18-42) | 27 (16-39) | 22 (13-33) | 18 (10-27) | 15 (8.3-22) | 12 (6.6-18) |
| 4 | 43 (28-55) | 40 (25-51) | 37 (24-48) | 31 (20-41) | 26 (16-35) | 21 (13-29) | 17 (10-24) |
| 5 | 54 (39-62) | 51 (36-60) | 48 (34-57) | 41 (29-50) | 35 (24-44) | 29 (19-37) | 24 (16-31) |
| 6 | 63 | 62 | 59 | 53 | 46 | 40 | 33 |

**Age = 90 years**

| Number of CRFs | BMI (kg/m²) | | | | | | |
|---|---|---|---|---|---|---|---|
| | 15 | 20 | 25 | 30 | 35 | 40 | 45 |
| 0 | 12 | 10 | 9.5 | 7.6 | 6.1 | 4.9 | 3.9 |
| 1 | 18 (13-29) | 16 (11-26) | 15 (10-22) | 12 (8.1-18) | 9.4 (6.4-14) | 7.5 (5.1-11) | 6.0 (4.0-8.7) |
| 2 | 27 (18-42) | 24 (16-37) | 22 (14-33) | 18 (11-27) | 14 (8.9-22) | 11 (7.0-17) | 9.1 (5.5-14) |
| 3 | 38 (25-52) | 35 (22-48) | 31 (20-44) | 26 (16-37) | 21 (12-31) | 17 (9.9-25) | 14 (7.8-21) |
| 4 | 49 (33-60) | 46 (31-58) | 43 (28-54) | 36 (23-47) | 30 (19-40) | 25 (15-34) | 20 (12-28) |
| 5 | 57 (45-64) | 57 (42-64) | 54 (40-63) | 48 (33-56) | 41 (28-50) | 35 (23-43) | 29 (18-36) |
| 6 | 62 | 65 | 64 | 59 | 53 | 46 | 39 |