## **Adult Grip Strength Norms (kg)**

Average the maximum grip strength of both hands to compare with these normative values.

| Male  |            |         |            |           |  |
|-------|------------|---------|------------|-----------|--|
| Age   | Avg. Str.* | Top 10% | Bottom 10% | Std. Dev. |  |
| 17–19 | 48.3 kg    | 60.2 kg | 36.0 kg    | 9.6 kg    |  |
| 20-24 | 50.7 kg    | 61.2 kg | 40.2 kg    | 8.2 kg    |  |
| 25–29 | 52.4 kg    | 63.0 kg | 41.8 kg    | 8.3 kg    |  |
| 30-34 | 53.6 kg    | 64.1 kg | 43.1 kg    | 8.2 kg    |  |
| 35–39 | 53.4 kg    | 66.0 kg | 40.8 kg    | 9.8 kg    |  |
| 40-44 | 53.8 kg    | 65.7 kg | 41.9 kg    | 9.3 kg    |  |
| 45–49 | 52.9 kg    | 63.7 kg | 42.1 kg    | 8.4 kg    |  |
| 50-54 | 50.4 kg    | 61.2 kg | 39.6 kg    | 8.4 kg    |  |
| 55–59 | 49.1 kg    | 60.0 kg | 38.2 kg    | 8.5 kg    |  |
| 60-64 | 46.3 kg    | 57.1 kg | 35.5 kg    | 8.4 kg    |  |
| 65–69 | 44.1 kg    | 53.5 kg | 34.7 kg    | 7.3 kg    |  |
| 70–74 | 41.7 kg    | 51.4 kg | 32.0 kg    | 7.6 kg    |  |
| 75–79 | 37.8 kg    | 47.9 kg | 27.7 kg    | 7.9 kg    |  |
| 80-90 | 33.2 kg    | 42.8 kg | 23.6 kg    | 7.5 kg    |  |

<sup>\*</sup> Average Strength represents the strength at the 50th percentile. The tables show the average of the maximum grip strength of both hands for the 50th, 90th, and 10th percentile. Typically, a person's dominant hand should not be more than 10% stronger than their non-dominant hand. When testing multiple times allow for 1 min rest before re-testing.

For best comparison with these norms, perform the grip strength measurement:

- standing with elbow at right angle next to torso,
- squeezing as hard as possible for 3-5 seconds.

| Female |            |         |            |           |  |
|--------|------------|---------|------------|-----------|--|
| Age    | Avg. Str.* | Top 10% | Bottom 10% | Std. Dev. |  |
| 17–19  | 31.5 kg    | 39.4 kg | 23.6 kg    | 6.2 kg    |  |
| 20-24  | 32.5 kg    | 39.4 kg | 25.6 kg    | 5.4 kg    |  |
| 25–29  | 33.6 kg    | 40.8 kg | 26.4 kg    | 5.6 kg    |  |
| 30-34  | 33.3 kg    | 40.7 kg | 25.9 kg    | 5.8 kg    |  |
| 35–39  | 34.2 kg    | 42.1 kg | 26.3 kg    | 6.2 kg    |  |
| 40-44  | 34.5 kg    | 42.6 kg | 26.4 kg    | 6.3 kg    |  |
| 45–49  | 33.4 kg    | 41.2 kg | 25.6 kg    | 6.1 kg    |  |
| 50-54  | 32.2 kg    | 39.8 kg | 24.6 kg    | 5.9 kg    |  |
| 55-59  | 30.0 kg    | 37.0 kg | 23.0 kg    | 5.5 kg    |  |
| 60-64  | 29.0 kg    | 35.8 kg | 22.2 kg    | 5.3 kg    |  |
| 65–69  | 27.6 kg    | 34.3 kg | 20.9 kg    | 5.2 kg    |  |
| 70-74  | 26.0 kg    | 32.3 kg | 19.7 kg    | 4.9 kg    |  |
| 75–79  | 24.2 kg    | 30.0 kg | 18.4 kg    | 4.5 kg    |  |
| 80-90  | 21.4 kg    | 26.7 kg | 16.1 kg    | 4.1 kg    |  |

Studies indicate that grip strength also varies by approximately 2-4 kg per 10 cm of height. These norms are based on data where average heights were ~180 cm for males and ~166 cm for females. Additional norms and calculators which also take height into account are available at dexdia.com/grip-strength-norms



