

The RPE chart

Turn reps and effort into a percentage of 1RM, then into the load for your next set.

% OF 1RM • REPS DOWN, RPE ACROSS

REPS	RPE 10	RPE 9.5	RPE 9	RPE 8.5	RPE 8	RPE 7.5	RPE 7	RPE 6.5
1	100	97.8	95.5	93.9	92.2	90.7	89.2	87.8
2	95.5	93.9	92.2	90.7	89.2	87.8	86.3	85
3	92.2	90.7	89.2	87.8	86.3	85	83.7	82.4
4	89.2	87.8	86.3	85	83.7	82.4	81.1	79.9
5	86.3	85	83.7	82.4	81.1	79.9	78.6	77.4
6	83.7	82.4	81.1	79.9	78.6	77.4	76.2	75.1
7	81.1	79.9	78.6	77.4	76.2	75.1	73.9	72.3
8	78.6	77.4	76.2	75.1	73.9	72.3	70.7	69.4
9	76.2	75.1	73.9	72.3	70.7	69.4	68	66.7
10	73.9	72.3	70.7	69.4	68	66.7	65.3	64
11	70.7	69.4	68	66.7	65.3	64	62.6	61.3
12	68	66.7	65.3	64	62.6	61.3	59.9	58.6

This is an estimate. The real percentages vary from lifter to lifter, from lift to lift and from day to day.

HOW TO USE IT

One set tells you the next

01 Rate the set

RPE 10 means no reps left. RPE 9 means one rep left and RPE 8 means two left. RPE is 10 minus the reps in reserve.

02 Estimate your 1RM

Find the set's reps and RPE in the chart, then divide the load by that percentage. 140 kg for 5 reps at RPE 8 is 81.1%, so the estimated 1RM is 172.6 kg.

03 Load the next set

Multiply that 1RM by the percentage for the next set. A triple at RPE 9 is 89.2%, so about 154 kg.

04 Check it against your log

It is a general chart, not a measurement of you. Your own numbers may sit a few percent higher or lower, so compare it with your training log.

THE FORMULA

Estimated 1RM = load ÷ (chart % ÷ 100)

Mike Tuchscherer, who made the chart, wrote: "It should only be used as a guide, not to attempt to derive a max." He also noted that it is most accurate for heavy sets of few reps.

SOURCE

Mike Tuchscherer, Reactive Training Systems (RTS) RPE chart

The link is his chapter on RPE from The Reactive Training Manual. The percentages are the RTS chart as it is widely reproduced.

<https://elitefts.com/blogs/training/rate-of-perceived-exertion-rpe>

ON [STRENGTHACADEMY.APP](#)

The calculator on the page turns any set into an estimated 1RM and a load for the next set.

In Strength Academy a coach can prescribe a set by RPE target or by % of 1RM.