



# Down Set Methods

## WEEKLY

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In most of the programs written in the RTS style, each movement of the training session consists of 3 sections. There's the work-up, the top set, and the down-sets. The work up and the top sets are fairly easy to understand. The top set is typically planned before you even get to the gym. If you're supposed to work up to x3 @9, then "x3 @9" is going to be your top set for the day.

Along with that, we usually have two sets leading up to the "top set". These two work up sets are done for the same reps, but the RPE is less. So using the example of x3 @9... the work up sets might be x3 @7, followed by x3 @8. Then you would go into the top set.

I'm often asked about these work-up sets. Are they necessary? Why not do singles instead to conserve energy? I do think the work-up is better than not doing a work-up. Similarly, I don't think work-up singles are a good idea unless you're doing singles on the top set (heavier singles are a different case). I know that if you do this, you might be able to get to a heavier top set. But the point isn't to get to the highest top set that you can. The point is to train and get stronger. By doing a shorter work-up or working up using singles, you reduce the overall volume of work and make it harder to dial in the top set correctly. What's more, think of the work-up as helping you get into shape for a contest. You want to get used to your hardest set being the third one.



*Train like an animal. Think like a human.*

## Down-Sets

I want to shift the focus toward Down-Sets. Down-sets are all those sets that come after the top set. The purpose is to hone in the training volume to the correct level and provide additional practice. There are generally three methods we use to regulate the down-sets: Load Drop, Repeats, and Rep Drop.

## Load Drop

Load Drop is the most common way to regulate down-sets in RTS. This is because it works well with a variety of RPE's, it's easy to measure, easy to understand, and easy to implement.

If you are using Fatigue Percents, you'll be assigned a fatigue range when you receive your program -- for example, 4-6% fatigue. If you see such a range in your program, you simply shoot for the middle of the percentage – in this case, 5%. It's written as a range simply to let you know that if you're a little over or a little under, that's okay. You reduce the weight by the percentage and continue to perform sets using the reduced weight until the RPE goes back to top-set levels. Here's an example:

90x3 @7 (we're starting the work-up)  
95x3 @8 (still working up)  
100x3 @9 (top set)

Now we want to reduce the weight by our fatigue percent – 5%. And we'll keep doing x3 until we get back up to @9 RPE.

95x3 @8.5 (not @9 yet, so we keep going)  
95x3 @9 (since the reps and RPE match the top set, we know we have 5% fatigue and stop)

This method allows your volume to auto-regulate up or down depending on how resistant you are to fatigue that day.

If you are not using Fatigue Percents, then you will be assigned a fixed number of “down sets”. This means Auto-Regulation for the volume needs to come from [TRAC](#) or a similar method. In this case, instead of being assigned a fatigue percent, you'll be assigned a number of down sets such as “2 down sets”. To perform a load drop in this case, you simply reduce the weight from your top set by 5% and perform the required number of down sets. If your RPE gets too high, then reduce by another 5%.

## Repeats

Repeats are well suited for lower RPE work (@8 and below) since you need more room to work with them. They also result in higher volumes and higher average intensities (but lower peak intensities) than the load drop method, but have the same fatigue “cost”.

If you're using Fatigue Percents, you'll still have a percentage assigned. Let's continue to use the 4-6% Fatigue example. After working up to the top set, you'll continue to do more sets using the same weight and reps as before. As you get tired, of course the RPE will climb. This climb is how we measure fatigue. To do this you'll want to reference the RPE chart:

	1	2	3	4	5	6	7	8	9	10	11	12
10	100.0%	95.5%	92.2%	89.2%	86.3%	83.7%	81.1%	78.6%	76.2%	73.9%	70.7%	68.0%
9.5	97.8%	93.9%	90.7%	87.8%	85.0%	82.4%	79.9%	77.4%	75.1%	72.3%	69.4%	66.7%
9	95.5%	92.2%	89.2%	86.3%	83.7%	81.1%	78.6%	76.2%	73.9%	70.7%	68.0%	65.3%
8.5	93.9%	90.7%	87.8%	85.0%	82.4%	79.9%	77.4%	75.1%	72.3%	69.4%	66.7%	64.0%
8	92.2%	89.2%	86.3%	83.7%	81.1%	78.6%	76.2%	73.9%	70.7%	68.0%	65.3%	62.6%
7.5	90.7%	87.8%	85.0%	82.4%	79.9%	77.4%	75.1%	72.3%	69.4%	66.7%	64.0%	61.3%
7	89.2%	86.3%	83.7%	81.1%	78.6%	76.2%	73.9%	70.7%	68.0%	65.3%	62.6%	59.9%
6.5	87.8%	85.0%	82.4%	79.9%	77.4%	75.1%	72.3%	69.4%	66.7%	64.0%	61.3%	58.6%

So if for example we were to Squat x3 @8, 4-6% Fatigue (repeats)... what might that look like?

90x3 @6  
95x3 @7  
100x3 @8 (this is the top set)

Since we're using repeats, we know the bar weight and reps will stay the same. If we look up x3 @8 in the chart above we can see we are at approximately 86%. So the goal is to get to +4-6% fatigue, meaning 90-92%. If we look for 90-92% in the chart, we can see we need to continue doing sets until we get to @9.5. Which might look like this:

100x3 @8.5  
100x3 @9  
100x3 @9  
100x3 @9.5

If you are NOT using fatigue percents, you'll again be assigned a fixed number of sets. Instead of seeing 4-6% Fatigue, you'll see "plus 3 down sets" or similar. Again, you'll keep the bar weight and reps the same. You simply continue for the required number of sets. If you do fatigue too quickly, rather than miss reps it's always better to reduce the weight. If you notice your RPE is getting too high, simply remove 5% from the bar.

### Rep Drop

Rep drops aren't often used in RTS because they reduce the training volume quite considerably. But if you need a method that maintains high peak and average intensities, this is the method to do it.

If you're using Fatigue Percents, again you'll be assigned a range just like in the other methods. You work up to the top set just as you do with the other methods. But after the top set, you keep the weight the same and reduce the number of reps, repeating until the RPE matches the top set. Again, it's easier if you reference the RPE chart:

	1	2	3	4	5	6	7	8	9	10	11	12
10	100.0%	95.5%	92.2%	89.2%	86.3%	83.7%	81.1%	78.6%	76.2%	73.9%	70.7%	68.0%
9.5	97.8%	93.9%	90.7%	87.8%	85.0%	82.4%	79.9%	77.4%	75.1%	72.3%	69.4%	66.7%
9	95.5%	92.2%	89.2%	86.3%	83.7%	81.1%	78.6%	76.2%	73.9%	70.7%	68.0%	65.3%
8.5	93.9%	90.7%	87.8%	85.0%	82.4%	79.9%	77.4%	75.1%	72.3%	69.4%	66.7%	64.0%
8	92.2%	89.2%	86.3%	83.7%	81.1%	78.6%	76.2%	73.9%	70.7%	68.0%	65.3%	62.6%
7.5	90.7%	87.8%	85.0%	82.4%	79.9%	77.4%	75.1%	72.3%	69.4%	66.7%	64.0%	61.3%
7	89.2%	86.3%	83.7%	81.1%	78.6%	76.2%	73.9%	70.7%	68.0%	65.3%	62.6%	59.9%
6.5	87.8%	85.0%	82.4%	79.9%	77.4%	75.1%	72.3%	69.4%	66.7%	64.0%	61.3%	58.6%

Let's another example: Squat x4 @9, 4-6% Fatigue

90x4 @7

95x4 @8

100x4 @9 (top set)

At this point we can see from the chart that x4 @9 is about 86%. To get 5%, we need to drop reps until we get to 90-92%. In this case we can see that x3 @9 is slightly low while x2 @9 is slightly high. So the lifter can choose either a hard x3 or an easy x2. Let's say the lifter chose x3. It might look like...

100x3 @8

100x3 @9

100x3 @9.5 (at this point you'd consider this within the range and stop)

If you are not using Fatigue Percents, again you'll be assigned a fixed number of sets. In this case you simply keep the weight the same and reduce the reps by one. If fatigue accumulates and it gets too difficult before your sets are through, reduce by another rep as needed.

Fatigue as we measure it in RTS is simply a loss of strength due to fatigue. When measured as a percentage of your peak daily capability, you get a Fatigue Percent and it's easy to auto-regulate volumes using this method. If you use other methods of volume control, Fatigue Percents may not be for you. That's fine. But both methods can take advantage of the various ways there are to perform the down sets. Each of these methods has strengths and weaknesses with respect to the amount and character of the work it results in as well as the amount of fatigue the work causes. Understanding and utilizing the differences can enhance your programming when using RTS methods.



### About the Author

Mike Tuchscherer is the owner of Reactive Training Systems, a company dedicated to individualized strength training. The goal of RTS is to make stronger people in an ethically and intellectually honest way. Mike himself is an accomplished powerlifter. He has over 17 years of experience training and researching the best training methods in the world. He currently holds the World Record deadlift and total for the 120kg class. He has coached 18 other World-level competitors including 3 other World Record holders, along with hundreds of "regular lifters". He says, "Everyone is just after the next PR." Learn more by visiting [www.ReactiveTrainingSystems.com](http://www.ReactiveTrainingSystems.com).

Photos courtesy of [Intelligent Strength](http://IntelligentStrength)

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