

Scaling: How Less Can Be More

There's no shame in scaling a WOD. Here are some ideas on how to do it effectively.

Clea Weiss



Luis Albuquerque

Scaling is an important aspect of CrossFit, but one that's often misunderstood. Correctly altering and customizing workouts can increase your work capacity, make training more gratifying and keep your Fran times well under 20 minutes—all good things.

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Scaling handstand push-ups is a great way to work up the strength to complete the full movement.

The simple fact is that the WODs posted on crossfit.com are designed for elite athletes with CrossFit experience, and almost all new CrossFitters will have to scale their workouts. But scaling properly isn't easy. It requires careful consideration and testing. It isn't as simple as picking a random weight and stripping a few bumpers off the bar before a WOD. Similarly, substituting movements can be pretty tricky if you don't know what you're doing.

So how do you scale to achieve the best results?

Start Slow—Or Not

The Start Here page on crossfit.com suggests athletes without experience in weightlifting or gymnastics should spend a month or two learning the correct technique for exercises while substituting simplified workouts for the main-site WODs.

For example, a guy named Jason Khalipa posted a scaled Fran time of over 12 minutes his first time around back in late 2007. He was able to do the RX'd weight on the thrusters but had to substitute jumping pull-ups. A few years later he completed the thruster-pull-up WOD at the 2008 CrossFit Games in 3:56 on his way to the overall title.

Some elite athletes may realize they have to scale when starting out with CrossFit, but the message hasn't always filtered down to everyone. How often do you see a comment like this posted after a brutal WOD: "This was my first CrossFit workout—awesome!" If jumping into doing the workouts full-tilt gets people started out happily, that may be preferable to not starting CrossFit at all. On the other hand, being overwhelmed early on will drive some athletes out of the box.

If you're starting, it's always best to work with a good coach. But not everyone has the money, and good coaches aren't always available. Training yourself can also work and may be preferable to working with bad coaches. With enough patience, you can teach yourself all the exercises in CrossFit's arsenal. If you're a solitary CrossFitter, it's worth making the drive to your closest affiliate every couple of months for refinements and improvements on exercises that you cannot teach yourself.

If you don't work out at an affiliate, then you are ultimately the one responsible for learning to scale. It can take months to learn scaling and apply it to yourself. Expect to make mistakes. Everyone does.

Scaling: The Pursuit of Power

Some novice athletes will have to scale their entire program. For athletes just learning weightlifting movements, scaling may mean completing only body-weight movements in metabolic conditioning workouts. Once you've reached a level of proficiency with weightlifting movements that allows you to complete them for time, you can begin to work them into your met-con workouts. The first month or so for a beginning athlete may lack variation, but developing competence and virtuosity in the basic movements is more important than doing complex movements as soon as possible.

There are various ways to scale. How to elicit the most effective response is both subtle and complex. You don't always scale by reducing the duration of workouts, for instance. Scaling correctly will increase work capacity more efficiently than attempting to complete workouts as prescribed before you're ready for them. Properly lowering the weight and achieving a faster time will actually yield a higher level of power.

The work and power output calculator on the [Catalyst Athletics website](#) shows that a 5-foot-10, 180-pound athlete who completes Fran with 95 pounds in nine minutes has a power output of 98.2 watts. If the same athlete scales the weight down to 75 pounds and completes the workout two minutes faster, his power output actually rises to 115.7 watts. So using less weight can sometimes be better.

Here's another example of how using less weight can be the right thing to do: a five-foot-five athlete who weighs 130 pounds and completes Fran in nine minutes using 65 pounds has a power output of 64.3 watts. If the same athlete scales the weight down to 45 pounds and completes the workout two minutes faster, her power output rises to 72.9 watts.

Once again, reducing the weight and completing the workout faster increased average power. But that isn't always the most important component in every workout, particularly for beginners. This brings us back to the basic question: how do you scale?

If the WOD calls for 30 clean and jerks at 155 pounds, it's clearly a met-con WOD. If you turn the workout into 30 single reps with a minute rest between them, you've missed the point.



Alex Cibiri/Element CrossFit

Using less weight can actually increase power output if you finish the WOD in less time.

Lose the Ego, Lower the Weight

How low should you go when reducing the load? Probably lower than you think. If you're female or just starting out and weigh significantly less than 175 pounds, the prescribed weight will be too much. While elite women can complete workouts with the weights prescribed for men, many consider two-thirds or three-quarters of the men's weight to be the prescribed weight for women. Women commonly use 65 pounds for a 95-pound workout and 95 pounds for a 135-pound workout.

When you do a workout for the first time, pick a weight that ensures you will complete all the reps. Consider 50 percent of the prescribed weight, or even an empty bar. Take a look at your time. Was it as fast and easy as you thought it would be? If so, increase the weight the next time you do the workout. The increase could be just a few pounds or right up to the prescribed weight. It all depends on how you did. Many workouts appear infrequently. You might find you can increase weight on virtual shoveling because your deadlift has improved.

It's also critical to scale weight on workouts that include Olympic lifts or high reps of weight that might be too heavy for you. You need to evaluate the point of the WOD. In CrossFit, one-rep max days exist for a reason: to build strength while struggling with a heavy load. If the WOD calls for 30 clean and jerks at 155 pounds, it's clearly a met-con WOD. If you turn the workout into 30 single reps with a minute rest between them, you've missed the point. You want to scale the weight appropriately to preserve the metabolic challenge. Find something that's heavy enough to challenge you but light enough to allow multiple reps at a reasonable pace.

Scaling:
**The idea is to challenge
yourself with all the exercises,
neither holding back on a
strength nor pushing too
hard on a weakness.**



Jason Khalipa's 12-Minute Fran

"I had a hard time but still finished sub-five."

That's how 2008 CrossFit Games fourth-place finisher Pat Barber described his first Fran to the *CrossFit Journal*.

We promptly told him to go to hell and continued searching for an elite athlete who struggled with his or her introduction to CrossFit.

We found such an athlete in Jason Khalipa.

Khalipa, you'll remember, won the 2008 CrossFit Games—but his nice-to-meet-you WOD was neither fast nor pretty. When he ran into Fran back in December 2007, the champ had to scale things back.

"My first CrossFit workout was at Crossfit One World in Union City with Freddy Camacho," Khalipa recalled. "My first workout was Fran. Freddy obviously wanted to kick my ass.

"I used the prescribed weight on the thrusters but was unable to do the pull-ups RX'd. Instead, Freddy had me do jumping pull-ups times two, and the workout took me about 12 minutes."

While Khalipa knew there was something to this CrossFit thing after his first encounter, he nevertheless headed back to Globo Gym for isolation work on his uvulous and upper dorsimus muscles. Between sets of biceps curls and triceps extensions—sculpting the guns, of course—he incorporated some CrossFit into his training. Eventually he saw the light.

Furthermore, jumping into a WOD that calls for a high number of technical lifts is a bad idea if you don't know how to do the movement properly. There's a reason most CrossFitters learn complex movements with a piece of PVC pipe, so don't expect to perfect the snatch with a stopwatch going and 135 pounds on the bar.

Fewer Reps: Turning Filthy 50 into Terrible 10

Lowering the rep count is also an option. Consider cutting Murph in half or reducing Barbara to 10 pull-ups, 20 push-ups, 30 sit-ups and 40 squats. This keeps the same time frame and difficulty for athletes who quickly lose their stamina on body-weight exercises. While preserving the symmetry of a workout like Angie may be conceptually pleasing, don't be afraid to scale only the pull-ups or push-ups.

How many reps should you cut out of a workout? One way is to consider how difficult the prescribed repetitions would be for an intermediate athlete. Beginner athletes should aim for a number of reps that will be as challenging for them as the prescribed workout would be for an intermediate athlete. Consider this tough workout from Jan. 16, 2009:

For time:

10 GHD sit-ups
10 hip & back extensions
30 95-pound thrusters
50 pull-ups

30 GHD sit-ups
30 hip & back extensions
20 95-pound thrusters
35 pull-ups

50 GHD sit-ups
50 hip & back extensions
10 95-pound thrusters
20 pull-ups

Few athletes will be able to complete the first set of 50 pull-ups in a row, so when scaling this workout you should pick a number that will take you at least three or four sets to complete, if not more. But if you find you have to do the last 10 pull-ups as singles with rest in between each one on the first set, you've bitten off more than you can chew and you're sacrificing your metabolic response.

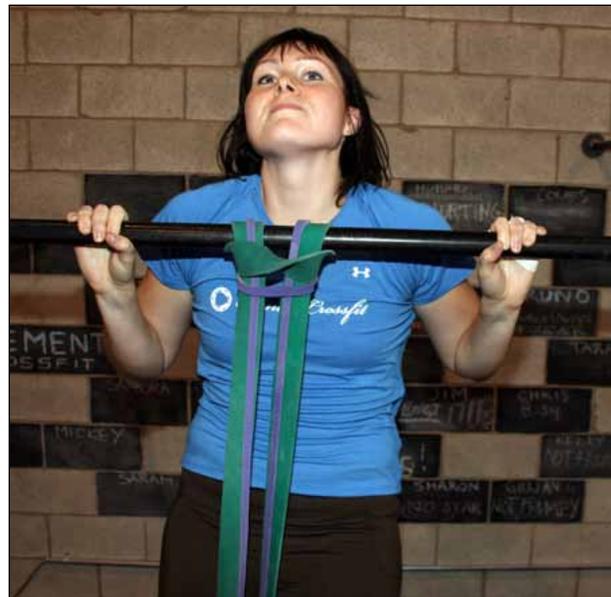
"I had been doing Globo Gym workouts all my life, so what could possibly happen if I switched things up for one month to try CrossFit out?" Khalipa said. "Once I committed to CrossFit it was my goal to complete all of the workouts as prescribed. This was extremely challenging for me, especially those workouts that involved pull-ups, handstand push-ups and muscle-ups.

"Every day I would practice what I sucked at. Over time I became more proficient at my kip and built strength, which helped me to finally complete most of the main-site workouts as prescribed."

About eight months later, Khalipa was crowned the Fittest Man on Earth at The Ranch in Aromas, California.

Your progression might not be quite as spectacular, but the champ's story should offer a little comfort when you have to drop weight for Linda, substitute dips and pulls for muscle-ups, or knock a round off Barbara.

—Mike Warkentin



Alex Chirri/Element CrossFit

Scaling the movement itself is always an option if the RX'd version is too challenging.

As with the pull-ups, the other repetitions in this workout could be scaled to minimize recovery downtime. When scaling repetitions, one approach is to match your time to the time an intermediate athlete would get performing the workout as prescribed.

Scale the Movement: How to Manage Muscle-ups

Altering the movements themselves takes more thought. People who have difficulty doing pull-ups have a choice between assisted pull-ups, jumping pull-ups or ring rows. While one pull-up substitution shouldn't be used to the exclusion of all others, some substitutions work better than others in specific workouts. Using assistance bands or Gravitron-type machines may develop strength efficiently, but jumping pull-ups will better preserve the metabolic stimulus of a workout. Consider using jumping pull-ups for a workout like Barbara. For lower-rep workouts like Fran, consider assisted pull-ups or ring rows for a pull-up ladder.

How should you program for athletes who can do some, but not all, of the pull-ups in a workout? If you haven't planned to do so, having to switch to assisted pull-ups halfway through a workout can be discouraging.

You may want to do a one max set of unassisted pull-ups (even if this is a single pull-up) and then switch to the assisted version on every single set of pull-ups in the WOD. This may result in a larger overall number of unassisted pull-ups, but maybe not. Every athlete is different.

Additionally, don't stop working on strict pull-ups after you learn to kip. Kipping pull-ups are great. Doing them exclusively would be unwise.

Some athletes can't do muscle-ups, handstand push-ups or other exercises. Even replacing each muscle-up with four pull-ups may be too much some beginners. Start with one pull-up and one dip. Eventually you can increase to two, three or four pull-ups and dips for every muscle-up.

And don't worry too much about doing the same number of reps for each exercise. If you're substituting pull-ups and dips for the muscle-ups in Nasty Girls, for example, there's no reason not to do 14 pull-ups and seven ring dips if you still struggle with ring dips but want to do more than 21 pull-ups in the entire workout. The idea is to challenge yourself with all the exercises, neither holding back on a strength nor pushing too hard on a weakness.



Luis Albuquerque

Of course, scaling up is always an option for firebreathers looking to test themselves.



Doing ring pull-ups with a false grip is a good way to get closer to that elusive muscle-up.

For handstand pushups, substituting push-ups with elevated feet is preferable to using a partial range of motion. Plyometric boxes work well, and athletes can place their knees on the box for additional assistance. GHD sit-ups are easily replaced with normal sit-ups. If you want to work GHD sit-ups into your workouts, you can split the set into half GHDs and half regular or Abmat sit-ups. Similarly, back extensions are easy to replace with supermans or good mornings. The Exercises and Demos section of the CrossFit website is rich in videos showing progressions for different movements. Spend time with these videos.

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Scaling Rounds and Rest

Altering round and rep prescriptions is a particularly good strategy for slow runners and rowers who are developing respiratory capacity. If three rounds of a five-round workout take more than 25 minutes to complete, some modification is required. You don’t want the workout to turn into a long, low-intensity effort of limited benefit. You can reduce the number of rounds, but you can also increase the length of rest.

Consider adding an extra minute to the rest periods in Fight Gone Bad, for example. For some athletes, the result will be higher output and intensity than when doing the workout as prescribed. Adding rest intervals to workouts can also increase output. Using the Catalyst Athletics work and power output calculator again, if a five-foot-eight, 150-pound athlete can perform 12 rounds of Cindy in 20 minutes, his power output is 72.82 watts. If that athlete takes a two-minute rest halfway through and completes 15 total rounds of Cindy in 22 minutes, his output rises to 82.75 watts.

You might also want to try a workout without the clock. It could really help you. Or you might feel lost, confused and purposeless. The first time you attempt a heavier weight or an RX’d workout, consider not timing yourself. You can still push yourself with intensity, but removing the stopwatch can take some of the pressure off. This is a good idea when completing exercises you are just learning—such as Olympic lifts—as part of met-con workouts. Without rushing, you can focus on performing complex movement patterns, breathing and staying conscious.

Knowing When to Fold

Sometimes it’s OK not to scale. If you have consistency with the movements and you’re really dying to see what your Fran time is, go for it. If you have a solid foundation in body-weight movements and want to gut out a full Murph before you’re ready, it probably won’t kill you—but maybe skip the weight vest.

Taking on a little too much is totally humbling. It will probably remind you of one of your first workouts. It’s good fun to be reminded of your own limits every once in a while. But if you take on too much and feel your form is breaking down beyond a safe point, do the unthinkable: quit the WOD. It takes times to learn when quitting is prudent and when it’s just slacking. Knowing the difference is important.

Scaling ... (continued)

If you're just starting out and can't judge whether to hold back or push harder, hold back. Once you've been doing CrossFit for a while and learn what your real limits are, push harder.

Skill practice is important for all athletes. If you have extra time, practice kicking up into a handstand 50 times. Practice kipping every day, even if no pull-ups appear in the WOD. Work on L-sits and skin-the-cats because basic gymnastics skills are incredibly useful.

Education is also important. For beginners, the three-on, one-off schedule itself may need to be scaled. If you find yourself too sore and exhausted to work out on the third day, dedicate your time to learning more. Read Mark Rippetoe's *Starting Strength* or Greg Everett's *Olympic Weightlifting*. Start learning about the Zone and Paleo diets, or spend some quality time in the archives of the [CrossFit Journal](#).

Careful scaling works—but it takes planning and experience. Track your progress, evaluate the results of your scaling and correct your mistakes. Talk to other coaches and athletes and ask for advice. Think, plan and educate yourself.

Most importantly, keep at it. While it may seem that you're always scaling or just completing basic movements day-in and day-out, you'll eventually start cranking out impressive CrossFit performances. The day will come. Just keep hitting the scaled workouts with all you have: blood, sweat, tears and patience.



About the Author

Clea Weiss has been CrossFitting for a little more than a year. She just graduated from Cornell University and has just opened an affiliate in Ithaca, NY, [CrossFit Ithaca](#).



Luis Albuquerque

Scaling now is one of the best ways to avoid scaling later.