

---

# THE CrossFit JOURNAL

---

## Pulling for all You're Worth

Want to get better at strict pull-ups? Bill Starr says the secret is simple programming and a lot of dedication.

---

By Bill Starr

August 2014

---



All photos: Dave Re/CrossFit Journal

In the CrossFit Journal article [The Arms Race and Olympic Lifting](#), I stated I didn't think Olympic lifters should do specific work on their biceps. I noted that these athletes get plenty of work for their biceps through all the heavy pulling they do regularly: power cleans, power snatches, full cleans and snatches, snatch and clean high pulls, and heavy shrugs. Those heavy pulling movements will strengthen the prime movers of the upper arms: the brachioradialis and brachialis.

Furthermore, when Olympic lifters do any type of curls, it causes the muscles to peak, and that prevents them from being able to rack cleans correctly.

---

1 of 7

However, one exercise works the biceps very directly yet does not interfere with racking a clean. This is because it does not build bulging biceps but rather strong, elongated muscles. It's a basic exercise that has been a part of strength training since Milo lifted that calf: pull-ups.

Bodybuilders have always used pull-ups to develop a wide spread in their upper backs, and many strength athletes include chins in their routines to help them enhance their pulls. Chins hit the lats like no other exercise.

Pull-ups are also used frequently as a test of arm strength. At high schools and universities, pull-ups were always part of the fitness tests. They are also often used as a prerequisite to qualify an applicant for jobs in fire departments, police forces and many government branches, such as the United States Secret Service. And it goes without saying that every branch of the military has always been high on chins.

With a bit of imagination, you can figure out how to chin on a wide variety of equipment. Over the years, I have done pull-ups on football goal posts by jumping up and grasping the crossbar, and I've done them on the side rails of those

horizontal ladders on playgrounds, the framing above a doorway or garage, and, in a pinch, sturdy tree limbs.

---

**Done correctly, pull-ups can strengthen your entire upper body: arms, shoulders, chest and upper back.**

---

Usually, finding a way to do pull-ups isn't really necessary because most gyms have bars or at least power racks in which chins can be done on the crossbar between the two uprights. Small chinning bars can also be fixed in an open doorway, but the shortcoming is they do not allow the athlete to use a wide grip, and I'm partial to the wide grip in chinning.

Done correctly, pull-ups can strengthen your entire upper body: arms, shoulders, chest and upper back. They are the perfect exercise for anyone who wants stronger biceps but does not want the development to have a negative influence on the rack position for a clean or reduce flexibility in the upper arms.

### **Pull-Ups for Everyone**

Females have always struggled with this exercise, as have young athletes, simply because they haven't developed sufficient strength in their upper bodies. Heavy strength athletes usually shun them because they do so poorly at them, but the truth of the matter is heavyweights can greatly increase the number of chins they can do if they work them hard enough.

You may be skeptical because most likely you have never seen a big man do many pull-ups, so I'll tell you the story about one of my favorite strength athletes, one I trained at the University of Hawaii. Charlie Aui, a native of Oahu, Hawaii, was the starting offensive guard on the football team. Everyone had a nickname at UH, and Charlie was dubbed "The Thing" for a Marvel comic-book character. This was shortened to the pidgin version "Ting." Charlie weighted 255 and loved lifting weights and getting stronger. While I had to prod and encourage many of the members of the football team to train consistently and work hard, the problem I had with Charlie was he would try to do way too much too soon.

When I started the football team on the Big Three—bench press, back squat and power clean—it only took them



***Even if a bar isn't available, creative athletes can usually find a way to do pull-ups.***



***When training for strength, Bill Starr recommends using a pronated grip and limiting lower-body movement as much as possible.***

about an hour to go through that basic workout. Everyone made gains rapidly, except for Charlie, which baffled me because he was, indeed, giving every session 100 percent effort. He was working like a demon but not making the real progress of his teammates. Then one evening I walked to the weight room to get some notes from my office and found Charlie working out for the second time that day.

When I asked him what he was doing, he explained that the routine I had him doing just wasn't hard enough so he had been coming in later on and adding in his former program. I sat him down and went over the concept of slowly but steadily building up the total workload over weeks and months and how it cannot be rushed. What he was doing was keeping himself in a constant state of overtraining, and gains do not come to an overworked body.

Once he started doing just what I outlined for him each week, his progress was amazing, and from then on Charlie was sold on my advice about weight training. As his lifts soared, he became my No. 1 fan.

He was an excellent athlete—quick, very coordinated—and he was getting stronger by the day. We didn't have a

great team, mostly because we didn't have a good head coach, but Charlie still got picked up by the San Diego Chargers as a free agent. That was good. What wasn't good was the team had already signed three players to fill the slot Charlie would be trying out for. Those three players had already received bonus money, so the odds of Charlie beating them for a spot on the team were very, very slim.

We discussed his situation, and I told him he needed to be able to do something to attract the attention of the coaches, something no one else could do. He was already in top condition. I had been pushing him on all the lifts as if he were getting ready for the Olympic Trials. I knew that most players heading to summer training camps do not arrive in peak condition and plan on using the camp itself to round into playing shape.

I decided Charlie should use chins to get noticed by the coaches. When I assisted Tommy Suggs at the summer training camp for the Houston Oilers, every player had to do a set of pull-ups before he went through the drills for that session. The most I saw linemen do was 3, so I wanted Charlie to work hard on chinning and run his numbers up high enough that he would stand out big time.

When he started on the program I gave him, the most chins he could do at one time was 2. I told him it didn't matter where he started just so long as he progressed. He did the program three times a week on his non-training days so he could devote all his concentration and energy to chinning.

---

**When he started ... the most chins Charlie could do at one time was 2. I told him it didn't matter where he started just so long as he progressed.**

---

And every time he came in the weight room, he would knock out 1 set of chins as part of his warm-up routine.



***Once an athlete can do 15-20 pull-ups, it's time to add some resistance.***

The program was remarkably simple, as most good programs are. It consisted of 4 sets of as many as he could do on every set. His goal was to add at least 1 rep to the total at each workout. For example, at his first chinning session of the week, he did these reps: 4, 3, 2, 2. That's a total of 11 reps. At his next chinning session, he had to do at least 12 reps. Where the increase came didn't matter. Usually it was on the first set because he had the most energy then. But on some days, it was the last sets, in which he kicked it in gear to up his total. In a couple of sessions, he just did not have enough juice to make an increase. On those days, I had him add in 1 more set to nudge that total upward.

I made sure that he used perfect form on every rep. He would fully extend his arms as he lowered his body down from the bar, and he would hesitate for a brief second at the bottom before pulling himself up to touch the bar with his chin. No recoiling out of the bottom, no kicking or squirming around. Each rep was done in a controlled, smooth motion, both up and down. Once he established his technique, gains came quickly. I also had him alter his grip slightly on each set, starting with as wide a grip as possible on the rather narrow bar that was attached to the wall, then moving his hands in a few inches for each of the following sets. That small change brings some different muscles and attachments into the game and helps gain that additional rep.

Everyone in the weight room knew why Charlie was working so hard on the chins, and they joined him and encouraged him at every session. I made sure he took plenty of time to reset between sets. There was no reason to hurry them. He would just do a single set when he chinned at the training camp. Slowly but steadily, his numbers climbed higher and higher until he was doing 55 reps in 4 sets. When he arrived at the training camp, he was able to do 16 reps on 1 set. And these were clean, picture-perfect reps.

As he and I had hoped, it did catch the attention of the coaches, and all the other players as well. None of them had ever seen someone who weighed over 250 lb. do anywhere near that many chins. Everyone at the camp instantly understood that this Hawaiian was one strong puppy.

And because Charlie had arrived in superb physical condition, he breezed through the two-a-days and had enough left in the tank at the end of the sessions to stand out in the sprints. The offensive coach really wanted to keep Charlie on the team, but there just didn't seem to be any open spots. Then fate stepped in on Charlie's behalf. All three draft choices got injured, leaving Charlie the last man

standing. Much to the amazement of his friends, family and teammates in Hawaii, Charlie made the team and played three years for the Chargers. It's a story with a happy ending, yet it would never have happened if Charlie had decided it was impossible to chin in the mid-teens and didn't put in the time and effort to improve that exercise.

### Keep It Simple

I have also helped individuals up the numbers of chins they can do by adding some resistance. I only do this with athletes who are already chinning in the 15-20 range. At a workout, I have them wear ankle weights or hold a 5-lb. dumbbell between their knees. When any form of resistance is added, the chins have to be done very deliberately. That extra weight puts a new form of stress on the elbows, and any rebounding off the bottom is potentially harmful to those delicate joints.

Now I'm going to go to the other end of the strength spectrum and provide some ideas for helping very weak athletes become stronger in pull-ups. For the athlete who

cannot do even a single chin, I do this: I have him, or her, hang from the chinning bar so the arms are completely extended. Then I have the athlete pull up as high as he can. This may only be 2 or 3 inches. Once he gets as high as he is able, I have him hold that position for a three count, then lower himself so his arms are straight once again. Depending on his level of arm strength, I have him do anywhere from 3 to 6 reps in this manner. After a rest, I have him do it again until I see he's out of gas.

At each subsequent chinning session, I get the athlete to pull himself just a bit higher than the time before. Then I do the same thing for the finish of the movement. I have the athlete lock onto the chinning bar with the chin over the bar, then lower the body a few inches before pulling back up to that starting position. He does this over and over until his strength gives out. Finally, I do that same routine for the middle position so all the muscles involved in chinning get some attention.

This is slow going, and many get discouraged and quit before they are ever able to do a full chin-up. But if they stay



*Several drills can help an athlete gain the strength to perform pull-ups. On the left, the athlete pulls as high as she can, then holds for a three count before lowering. On the right, she does the same thing from the top down, lowering as far as she can, holding for a three count and then pulling herself back up.*

with it, they will find a day eventually comes when they can do a chin-up. Once that barrier has been overcome, the numbers start climbing almost magically.

How about the practice of helping an athlete chin by lifting him through the sticking point? I'm not a proponent of assisting athletes on any lifts. I call it "all-you syndrome." When I hear a spotter shouting "it's all you!" as he helps a lifter finish a bench press, incline or squat, I know it definitely is not all him. In my mind, if someone touches a bar to add assistance to any lift, that lift does not count. Instead of providing assistance, I'd rather the athlete take longer to achieve his goal of doing a chin-up on his own.

---

### What it takes is determination.

---

What it takes is determination. I had a small female basketball player who decided she was going to do 3 pull-ups before the end of the semester. Every time she came in the weight room, she went straight to the power rack, climbed up and

hung from the crossbar. She would lower her body and try to pull herself back up, over and over, week after week, never quite making it all the way up to the bar. But she persisted, and after she finally made that first chin-up, more came quickly. At the end of the semester, she was able to do 6 reps—twice as many as she set out to do. She was extremely proud of her accomplishment, and rightly so.

Whenever an athlete improves the strength in his upper body and back, he discovers that it carries over to chin-ups. The best exercises to help increase chinning numbers are power cleans, power snatches, clean- and snatch-grip high pulls, and overhead presses. I've known some Olympic lifters who were able to do 15 chins the very first time they tried.

Use the overhand grip. While the underhand grip hits the biceps more directly, you cannot do as many reps, and the overhand grip builds strength in the arms, shoulders and upper back much better than the underhand version.

If the chinning bar is fairly long, do that first set with a grip as wide as you can manage, then move your hands in slightly on the other sets, and finish with your arms vertical.



*Starr recommends using a wide grip for your first set and then bringing the hands in for the following sets.*

I always used chins as an auxiliary exercise at the end of my workout. But if someone is trying to improve the number of pull-ups he can do, he should give the exercise priority and do it first in the program.

I'll finish with a story of another determined athlete. A field-hockey player who had been doing my strength program that spring came to me for advice on how to improve her chinning ability. She was scheduled to take a fitness test in six weeks to become a firefighter in New York City, New York. There were tons of applicants, only a few spots were open, and the test was tough. She had greatly improved her overall strength in the offseason and wasn't concerned about doing well on the various physical tests. Except for pull-ups. She could do 2, and the minimum requirement was 8.

I gave her the same routine I used with Charlie, and she put every ounce of energy she had into that program. And she got results. Once she built a solid base, the gains came rapidly. She weighed about 150 lb., so it was not a cakewalk by any stretch of the imagination for her to add a half-dozen reps in just six weeks. She did 1 rep over the requirement and was the only female applicant who got accepted to train to become a full-time firefighter.

Adding just 1 rep to your overall total for 4 sets is not at all demanding, yet if you continue to do that for several months, your numbers are going to go up appreciably, and the strength you gain doing pull-ups will have a positive influence on every upper-body exercise in your strength program. Give this program a try, and you will be nicely surprised at the results.



### About the Author

*Bill Starr coached at the 1968 Olympics in Mexico City, the 1970 Olympic Weightlifting World Championship in Columbus, Ohio, and the 1975 World Powerlifting Championships in Birmingham, England. He was selected as head coach of the 1969 team that competed in the Tournament of Americas in Mayaguez, Puerto Rico, where the United States won the team title, making him the first active lifter to be head coach of an international Olympic weightlifting team. Starr is the author of the books "The Strongest Shall Survive: Strength Training for Football" and "Defying Gravity," which can be found at [The Aasgaard Company Bookstore](#).*



***Anyone who works hard at pull-ups will see improvement over time.***