

---

# THE CrossFit JOURNAL

---

## No Rest for the Foolish

Bill Starr addresses an element of strength training that's too often disregarded by hard-charging athletes.

---

By Bill Starr

May 2015

---



Dave Re/CrossFit Journal

*Editor's note: Bill Starr completed this article before he passed away April 7, 2015, in Maryland.*

There are three sides to the strength pyramid: training, nutrition and rest.

It takes time to learn how to do various exercises using proper technique, what exercises to do on which training days, what sets and reps to use, etc. Sometimes it can take two or three years to do so unless you happen to be lucky enough to have a mentor.

---

1 of 8

Same for nutrition. Everyone has individual needs and requirements, so it takes trial and error over an extended period of time to know just what foods and nutritional supplements benefit you the most in terms of training and recovery.

However, you really don't have to spend any time thinking about the rest factor, nor does it cost you any money. Yet this is the factor most overlooked in strength training.

I've known athletes who would spend hours designing and redesigning their routines. They would study everything they laid their hands on about the many facets of nutrition, from what wholesome foods they needed to the dosages of the supplements they had selected to use. Then they would show up in the weight room in a fatigued state because they hadn't bothered to pay any attention to the final side of the strength pyramid. The result was always a subpar workout.

Obtaining an adequate amount of rest is not a luxury; it's an absolute necessity. And I'm not just talking about getting bigger and stronger. Rest is critical to our overall health in a very big way. I recently came across this Irish proverb: "The beginning of a ship is a board; of a kiln a stone; and the beginning of health is sleep."

---

**Rest equals recovery, and  
recovery is the key to making  
consistent progress.**

---

### Sleep and Recovery

Research has shown that extended periods of sleep deprivation can lead to amnesia, delusions and hallucinations. Not getting enough rest for shorter stretches can cause forgetfulness, sour moods and irritability. Everyone can relate to that because we've all been there due to various virtually unavoidable life events. Health authorities state the human body can operate without food longer than it can without sleep.



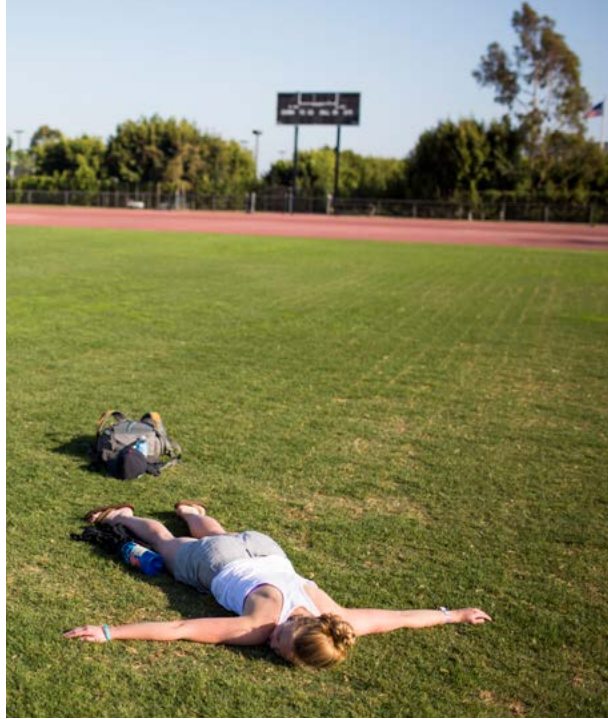
Tanya Ali

***Rest leads to recovery. Recovery leads to consistent progress.  
Plan your beach time wisely.***

For the aspiring strength athlete, getting a sufficient amount of rest during the week is even more important because rest equals recovery, and recovery is the key to making consistent progress. When an athlete goes through a hard training session, he has, in fact, damaged his body by stressing his muscular, respiratory, circulatory, skeletal and endocrine systems. These systems must have time to be repaired or the body will not respond as it should. That means supplying the various cells with nutrients and, even more importantly, getting enough rest to allow the body to recuperate fully. If that doesn't happen, the athlete will not be ready for the next workout.

In addition, a tired body does not operate at full capacity. This means form will be off and workload will be down. When an athlete's technique is sloppy, the chance of getting injured goes way up. Poor sessions also work on an athlete's confidence: too many in a row and his lifts start going downhill.

On the other hand, when an athlete gives priority to getting plenty of rest the night before a hard training session, he



Will Duncan

***Didn't get enough sleep? Take a nap. Wherever.***

arrives at the weight room full of piss and vinegar, knowing that he will make all his intended numbers.

Sleep is simply crucial to overall health and well-being. Consider these facts: When you sleep, your higher brain centers go into temporary retirement so they can go about the essential business of repairing and recuperating. This downtime allows the muscular system and—even more importantly—the nervous system to recharge.

As I mentioned, heavy training destroys tissue. In order for this damage to be repaired, two things must occur. One, nutritional foods or supplements must be provided. Two, your body needs some deep sleep. One of the key events that occurs during deep sleep is the body's release of growth hormone, which is critical for making repairs, maintaining tonus in the muscles and keeping fat in the cells. Because the body makes growth hormone only during deep sleep, the question begs itself, "How do I get to a place called 'deep sleep?'"

The process called sleep has always fascinated me because I have always loved to sleep. I list it as one of my favorite hobbies,

along with reading novels and creating art. But it wasn't until I researched the subject at the University of Hawaii library to include as a chapter in "The Strongest Shall Survive" that I finally learned what went on in my body every night.

I discovered that sleep doesn't come in a rush; it dances about in stages. When you first lie down, you might drift off for a short while, then awaken. This light rest is known as the "threshold of sleep." Should you awaken completely during this stage, you will most likely feel as though you haven't slept at all.

Next comes the first genuine sleep stage, known as Stage 1. It is brief, and you are easily awakened from Stage 1 sleep.

Steadily, you descend into Stage 2 and Stage 3. In Stage 2, your body temperature drops and your heart rate slows. Stage 3 was formerly divided into the third and fourth stages, but this distinction is no longer common. In Stage 3, the brain produces slow delta waves, and you become less responsive. Stage 4 is characterized by rapid eye movements (REM), which supply the name "REM sleep." The brain is more active but muscles are more relaxed. This is when you dream.

The first REM period lasts about 10 minutes, and periods of REM and non-REM sleep alternate throughout the night. The actual length of each sleep cycle varies from individual to individual, but 90 minutes is typical. Periods of REM sleep usually increase in length throughout the night. At the conclusion of the sleeping period, which is usually seven or eight hours, your body starts preparing itself to return to consciousness by increasing your body temperature and heart rate.

Scientists know sleep is essential for restoration, yet they do not know exactly how that process occurs. They believe the body does most of its repairing in non-REM sleep. During REM sleep your mind is busy processing new information and data through the filters of past experiences. That's why some of our dreams take place in odd places but the people are familiar. Or vice versa.

One thing researchers are sure of is that getting enough rest is critical to your overall health. When a person deprives himself of a sufficient amount of sleep, even for a single night, it can have a very negative effect on the immune system. If this is continued for several days, the number of immune-system cells drops drastically.



Alicia Mantilla

*Resting doesn't necessarily mean sleeping. Sometimes just relaxing, forgetting your problems or mentally rehearsing your workout is enough.*

I had always heard that lost sleep cannot be made up, yet it works for me. When I deprive myself of my needed rest, I make sure I get to bed earlier than usual the following night. The next day, I feel fine.

---

### Give priority to getting enough rest when you're in hard training.

---

It's also important to understand individuals vary as to how much sleep they need. I've known a few people who could maintain quite well on just six hours a day. In my own case, I need a minimum of eight, and when I'm training hard, that increases to 10 hours.

To many people, sleep is a luxury. There are more important things to do than sleep. People today sleep only seven hours a night on average. They work 160 hours more each year than their grandparents did and get 20 percent less sleep. Work-related stress is the main reason so many suffer from sleep deprivation, but there are many other reasons as well. Bars lure college students and those in their 20s and early 30s with special low prices on Thursday to jumpstart a weekend of partying. Electronic devices—from cell phones to televisions—keep people of all ages up late.

It's been determined that our sleep-deprived crisis began with the invention of the light bulb over a century ago. Prior to that miracle of convenience, the average American got nine-and-a-half hours of sleep. By 1960, that figure had diminished by two hours, and now it's down to seven hours. While this is primarily due to work pressures to make more dollars, many drag through their days half-awake and functioning at a subpar level because they can't seem to shut off their television sets or computers.

### Sleep for the Strong

Everyone, no matter how dedicated he or she might be to getting stronger, is going to be faced with some situation that prevents him or her from obtaining a sufficient amount of rest. But going to the gym when you're fatigued a couple of times a month isn't that big a deal unless you're planning on hitting some big numbers that day. The problem comes when you try to train hard and heavy several sessions in a row when you're not rested. If this becomes a regular habit, you can forget about making any progress in the weight room.

You must give priority to your training if you want to make gains. That means finding a program that works for you, eating nutritional foods and taking the supplements you find beneficial, and making absolutely certain you get plenty of rest.

Should you come up short on rest on a night before a workout, make sure you get some extra rest the following night to make up the deficit. Give priority to getting enough rest when you're in hard training.

In my own training and in that of my students, I've always found the need for rest increases steadily throughout the week. There's seldom any problem with the first session of the week, which is usually done on Monday. The athletes are rested and ready to go because there's not a lot going on Sunday nights, unless you stay up to see the end of an overtime game of football.

Tuesday and Wednesday workouts are usually light days, so they also go well. Fridays, however, are different, because many strength athletes are tempted to join their friends for those Thursday drink specials I mentioned earlier. They come dragging into the weight room lacking energy and motivation because they drank too much and got to bed much later than usual. The result? The Friday session is a flop. You might be thinking, "So what? It's only one workout." That's not how it works.

Every strength program that has any merit is put together so that all the workouts are linked together. What athletes do on Friday has a very direct bearing on what they will do the following heavy day on Monday. If they have a poor workout on Friday, they will not be able to make the numbers I have laid out for them on the following Monday.

And if Monday's session is subpar, it will influence all the sessions through that upcoming week.

However, on the plus side, there are things you can do to help your cause. Take the example of the athlete who simply cannot skip going out with friends on Thursday nights. I had a field-hockey player who had been making excellent progress, and all of a sudden she began slipping back because her Friday workouts were terrible. She moved through the exercises like a zombie. We chatted, and I found out why she was so weary on Fridays. She loved to dance, and there was a nightclub with a great band right around the corner from her apartment. She simply could not stay away.

I suggested that she modify her partying a bit. I didn't tell her to stop going to the nightclub altogether because I knew she wouldn't do that.

"Go a bit earlier than usual, and instead of drinking as you normally would, cut back to just two drinks. Then leave an



John McGuire

***Disappointed by your lack of gains? Get some rest.***

hour or so earlier than usual. And if you get the chance, slip in a nap before coming to the weight room. Then on Friday night, party as long as you like. Just let up a bit the night before your Friday workout.”

She said she could handle that, and she did. Right away, her lifts began to climb once again, and that motivated her to keep her partying to a moderate level on Thursday nights.

Although I have read that some experts don't believe taking a nap is a good idea because it makes it harder to get sleep at night, I do not agree. That might be the case for the average Joe who believes walking out to his mailbox is exercise, but for anyone hitting the weights hard and heavy and maybe even adding in several days of cardio work, more is better when it comes to rest.

I've salvaged many workouts by slipping in a short 20-minute nap an hour or so before training. Keep in mind that finding a place to nap doesn't have to be perfect. I've taken naps on massage tables, sit-up boards, bleachers,

benches in locker rooms, floors, blankets on grass, and in the back seat of my car. Although these naps might not be as comfortable as those in your bed or recliner, they can make a big difference as to how you train that day.

And you don't have to actually fall asleep. Just relax your muscles and push any vexing problems out of your mind. Mentally rehearse your upcoming workout and think positive thoughts about the exercises you plan to do that day.

Then, about a half an hour before you begin training, drink some coffee. The hot liquid elevates body temperature, and the caffeine helps you gear up. I prefer coffee over the high-caffeine drinks on the market because I can moderate how much I take in more easily. Some of those high-energy drinks contain an enormous amount of caffeine, and that can interfere with maintaining good form on the various lifts. Coffee is useful when taken in moderation, so you don't have to resort to exotic drinks that cost an arm and a leg.

Another tip I've learned through personal experience and training athletes is to guard against the tendency to dawdle and take long rest periods between sets when you're feeling sluggish from the lack of sleep. What you need to do is exactly the opposite: push through your workout at a faster pace than usual. Once you get your body temperature up and increase your respiratory rate, keep them at that level so you're huffing and puffing right to the end of the session.

When you're feeling droopy, it's the time between sets where you feel it the most. When your body is in motion performing an exercise, your mind is focusing on what you're doing. But in between, you feel the tiredness. Another plus is that when you go through your workout quickly, you get finished much faster. On those tough days, that's a blessing in itself.

### Starr's Sleep Tips

Now I want to go over some ideas about how you can get to sleep easier.

It seems not being able to fall asleep has become a problem in our country. The Centers for Disease Control reports almost 10 percent of the general population has chronic insomnia. Commercial enterprises are all over



Dave Re/CrossFit Journal

***During deep sleep the body releases growth hormone, which makes repairs, maintains muscle tone and keeps fat in cells. Kettlebell optional.***

this, advertising a wide range of solutions: mattresses that guarantee blissful rest, sound machines, eye coverings that produce magical results, and, of course, a long list of pharmaceuticals to assist you in quickly dropping off to oblivion. Unfortunately, most people choose the latter option because it's easy and doctors have no qualms about writing scripts for these drugs. But for strength athletes who are concerned about their health, this is definitely not the answer. Any drug, regardless of the manufacturer's claim, alters many systems in your body, especially the liver and kidneys, which have to deal with the influx of new—and potent—chemicals.

---

### **When you follow a regular routine of working, eating, training and resting, sleep comes much easier.**

---

In many instances, the sleeping aids destroy valuable nutrients and cause the part of the brain that is responsible for sleep to be altered. Sleeping pills make most people groggy the following day, which prompts them to ingest more caffeine than usual. Caffeine interferes with the sleep process, so around and around they go.

Prescription and over-the-counter sleeping aids are not necessary. There is a safe, natural alternative: calcium and magnesium tablets. Not only are they perfectly safe, but they're also extremely beneficial in many other ways besides helping you relax and fall asleep. Both minerals are vital to bone and dental health and are needed for muscle contractions and tone. Magnesium is needed for the synthesis of proteins and fats. It had been called "nature's own tranquilizer." The minerals are water soluble so there's no fear of taking too much.

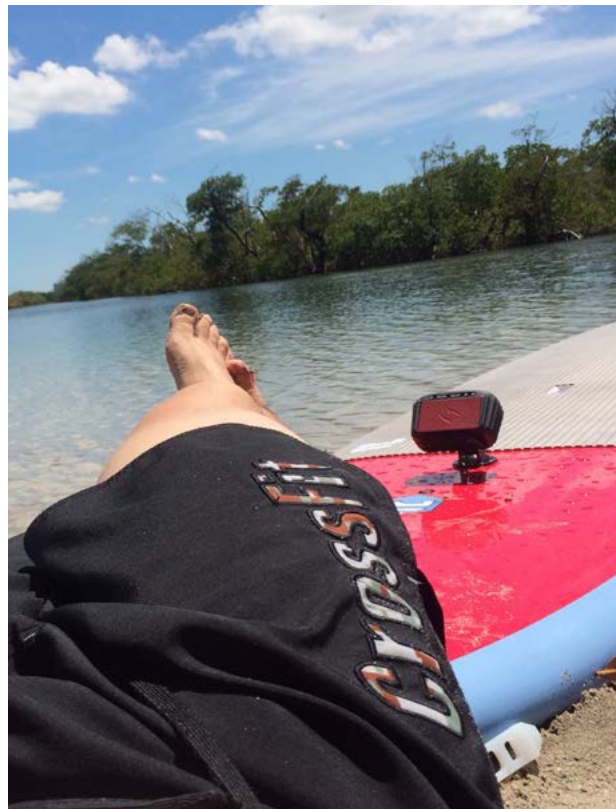
Using these minerals as a sleep aid isn't a new idea. It's been around longer than memory. A warm glass of milk or hot chocolate helps soothe the nerves and allows your mind and body to relax. So if you don't want to buy any magnesium and calcium, simply heat up some milk and drink it about 30 minutes before you go to bed. If

you choose the supplement route, make sure the ration between the two minerals favors twice as much calcium to magnesium. This balance makes a difference, so be sure to check the label.

Try to adhere to a strict schedule, especially during the week, because that's when most people train. When you follow a regular routine of working, eating, training and resting, sleep comes much easier. Weekends are different because many don't train or their routine is very different than it is during the week.

Some people find reading to be relaxing. Others like to take long showers or soak in a hot tub of water. Many prefer homeopathic remedies or herbs—chamomile tea, kava-kava, amber and ginseng.

A light snack can also be useful in becoming more relaxed. But eat lightly. If you overindulge, your digestive system will go into high gear and will prevent you from falling asleep.



Luis Nino

*A relaxed mind and body make for a better workout.*



Orlando Seraus

**Keep in mind that you don't get stronger when you're working out. You get stronger as you recover from working out.**

Drinking some alcohol before bedtime is OK; drinking a lot is not. An abundance of alcohol interferes with REM sleep, and that's the most refreshing part of rest. Avoid stimulants such as caffeine and nicotine. You're probably aware that coffee, tea and soft drinks contain caffeine, but you might not know that it is also found in many over-the-counter pain products.

Some light exercise before bedtime is fine, but don't do anything strenuous. That stirs up endorphins, and they will prevent you from falling asleep right away.

However you decide to go about it, you must make sure you get plenty of sleep when you're training diligently. If it means giving up some late-night TV or passing on a party, you just have to do it if you're really serious about getting stronger. This magical one-third of your life might be even more important to you overall health and well-being than the other two sides of the strength pyramid.



#### 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 was 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](#). Starr died on April 7, 2015, in Maryland.*