

Starting Strength

Training in the Heat

by
Bill Starr

I would guess that everyone has, at one time or another, trained in a non-air conditioned gym during a hot, humid summer and left the facility totally exhausted and drained. I certainly remember those occasions and how miserable I had been. Yet I never missed a workout because of the heat. Consistency of training is a vital part of my philosophy dealing with fitness, and if I'm scheduled to workout on a given day I do so regardless of the circumstances, which, of course, includes the weather.

It was often a test of character. The one place that always comes to mind when I'm writing or talking about this subject is Billy Neel's combination gym and dive shop in Clute, Texas, right on the Gulf Coast. The dive shop was Billy's primary concern, but he'd added a weight room primarily for the local athletes and bodybuilders to have a place in which to train. The metal building wasn't air conditioned and to add to the already hot, sticky air, there was an indoor pool for teaching purposes. There were fans, but all they did was blow hot air around. All the mirrors stayed fogged up from the humidity.

By the time I finished my warm-ups, I was drenched in sweat. After a set, I rushed to the lone door to suck in some fresh air, which was only a few degrees cooler than the inside of the gym. Usually there was a mob of members seeking similar relief. It was a three t-shirt gym during the hot months because that's how many were needed to make it through a workout. Plus lots and lots of water. The alternative was to skip a session, but I learned early-on that if you allow yourself to begin missing workouts for whatever reason, you're not going to make the same gains that you would have by being regular.

Training in the heat cannot be considered enjoyable by any stretch of the imagination, yet you can still make gains during these times if you learn to make some adjustments and come to the gym prepared. My take on the situation is there are many people who do manual labor all day in the hottest part of the year and they survive, so I should be able to get through an hour and a half workout without suffering dire consequences. Mid-August is also when football camps open, and those poor slobbs punish their bodies in sweltering temperatures and matching humidity two and sometimes three times a day.

Merely getting through a workout in ultra-hot weather isn't enough. You need to be able to improve your strength and enhance your physique for the sessions to be worthwhile. The key to doing this is not rocket science; it's common sense, and it deals with making certain you're providing your body with all the necessary nutrients to replace those being lost, and making adjustments to your program.

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There's a lot more at stake than just achieving a solid workout, it's a matter of preserving your health, because heat can put you down for the count in a hurry. Overheating and the resulting deficiencies in fluids and vital nutrients can come on amazingly fast when the temperature and humidity linger close to the century mark. As much as three quarters of sweat can be lost in a single hour. When this happens, blood volume drops appreciably, and if it drops too low circulation becomes impaired so much so that the brain and other organs are deprived of oxygen. Dizziness and disorientation often follow. If the body's core temperature reaches 105°, heat stroke can occur.

Trying to train in this condition isn't going to be very productive. It's similar to training right after giving blood. Simply put, it's not a smart idea. There's plenty you can do to alleviate such problems. Start by drinking lots of water before you head to the gym and carry plenty with you. Drink during your workout and continue to consume more afterwards. More is better than less. Robert Voy, former chief medical officer at the U. S. Olympic Training Center, recommends six ounces of water for every twenty minutes of activity. Yes, water is the very best replacement fluid since it passes quickly from your stomach to your bloodstream. Replacement and energy drinks usually contain sugar and sugar slows the assimilation process. Many are also loaded with caffeine. Caffeine adds to the problem since it promotes water loss. So avoid colas, coffee, tea, and any product containing caffeine.

While everyone is aware of the importance of drinking plenty of water to replace what is being lost in sweat, few realize that water alone is not enough. In fact, drinking high volumes of water can actually create deficiencies. Whenever you're sweating profusely and gulping down lots of water, you're flushing nutrients out of your body very rapidly. I am referring to the water-soluble vitamins and minerals. Without an adequate supply of vitamin C, the B-complex group, and all the minerals, your body will not be able to function properly. Most important are the minerals.

Life itself is dependent on minerals. There are over 60 trillion cells in your body and every one needs a wide array of minerals in order to function properly. In fact, 5% of each cell is composed of minerals. They are what propels and perpetuates the various metabolic processes as well as providing structure and support for the cells, and when they are not supplied in adequate quantities, muscles cannot contract well and there is a general feeling of weakness. Early-warning signs that you're deficient in minerals include cramps, muscle tremors, lightheadedness, and fatigue.

The other two water-soluble vitamins are also needed for a successful workout. In a nutshell, the Bs help convert the foods you eat into energy and C helps recovery and rebuilding. Of course, both do much more than this but the point is, you must make sure there is an adequate amount available if you want to have a productive session in the gym.

To ensure that you have an ample supply of these water-soluble vitamins and minerals available throughout your workout, simply do this. An hour before training, take a gram of C, a B-complex vitamin, and a couple of multiple minerals, along with a banana. The banana will provide a

Those attempting to gain or maintain bodyweight often find it most difficult to do so in hot weather because of a diminished appetite. Protein shakes to the rescue. Two or three throughout the day will do the trick. Be sure to drink one right after your workout and another just before bedtime. There are many excellent products on the market, but if their cost is prohibitive simply use dried milk solids. They're inexpensive and can be found in all supermarkets. A cup of dried milk along with ice cream, yogurt, or both, with milk, will provide fifty grams of highly assimilable protein, which is all your body can handle at one time.

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nice energy boost plus 400 mgs, of potassium, the mineral largely responsible for muscle contractions. Then, during the workout, take more minerals as you feel the need. If your energy starts to wane, take another B and C. After the workout, take yet more minerals. Keep in mind, all these nutrients are water-soluble. Any excess is flushed out of your body.

Besides the nutritional aspects, there are several other things you can do to help make training in hot weather more productive. If possible, change your training time to early in the day or later at night to avoid the intense heat of mid-day. Be sure to pack extra t-shirts and a sweat towel along with the water and supplements. Nothing is more distracting than trying to bench, incline, or squat in a dripping-wet t-shirt. A dry t-shirt can spell the difference between a crummy set and an excellent one. And a good workout is made up of lots of successful sets.

This might be a good time to change your routine. Do lower reps. A set of doubles or triples isn't nearly as exhausting as fives or tens. Because of the higher temperature, you can drop some warm-up and intermediate sets and move more quickly to the work sets. Put the most demanding exercise up front in your routine and cut back on the number of the exercises. Stick with core movements and drop most, or all, auxiliary exercises until the weather changes. This will allow you to cut some time off your workout and you can pick up those eliminated movements once the temperature falls. Shortening your workout by fifteen or twenty minutes will do wonders for your recovery.

You might want to try an opposite approach to the one I just mentioned: switch to higher reps using lighter weights. This is the program many bodybuilders used during the summer to their advantage. They utilized the hot weather to help them shed unwanted pounds and at the same time, did high reps to shape and sculpt their muscles. But they did as I suggested with the low-rep routine: fewer exercises and shorter sessions. This type of change will give your attachments and joints a well-deserved rest from the pounding of heavy weights and let you pay attention to some weaker areas. It's beneficial to anyone to use this sort of program at least once a year, so why not do it during the summer?

When training in the heat, slow down your pace. Take a bit longer between sets, especially the more demanding ones. Stand in front of a fan or even step outside until you feel ready for the next set. All the while you should be consuming water and taking more of the water-soluble vitamins and minerals as they're needed.

Cooling your body temperature as soon as possible after you finish is most helpful, so jump in a shower, or better yet, a swimming pool just as quick as you can. I once trained with an older man in Maui who showered between the grouping of exercises. He would do all his squats, shower, do his deadlifts, shower, and so on. It was a bit of trouble but it did the trick because he stayed fresh through the entire workout.

A good night's sleep in hot, humid weather can be hard to come by, and obtaining sufficient rest is critical to making gains in the weight room. The solution: purchase a calcium-magnesium supplement. Take it an hour before going to bed along with some multiple minerals and vitamin C. The calcium-magnesium will help you to relax and fall asleep, and the C and minerals will work during the night to repair tissue and facilitate recovery while you snooze away. Also, the combination of the minerals and C will provide you with hours of vivid dreams. Better rest, improved health, and movies. Not a bad deal. Be sure to check that a product contains twice as much calcium as magnesium or it will not be as effective.

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There is really no reason why heat should be a huge barrier to your training. With planning and paying attention to how you feel and making small adjustments to your program, you can turn a negative situation into a positive experience. Hot weather can be a deterrent or simply another challenge. It all depends on how you deal with it.



A “3 t-shirt” training day in July ’96 for Tommy Suggs (left) and Bill Starr (right).

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