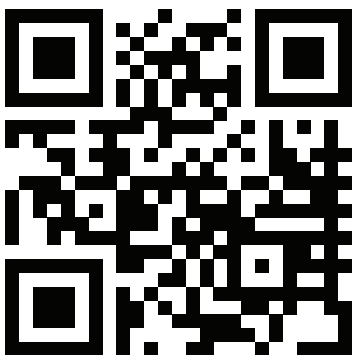


METOLIUS



Campus Board Training.

By Metolius.



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Introduction.

The late Wolfgang Gullich installed the first “campus” board at a gym called The Campus Centre (hence the name) in Nürnberg in 1988. His intent was to train specifically for his project, Action Directe, a route which required extreme finger power.

Using the board, he increased his one-fingered dynamics to previously unknown levels, culminating in his success on Action Directe in 1991, setting a new standard for hard free-climbing.

Gullich’s route may still be one of the hardest in the world, but it is more important to note that, at the time, it was far harder than anything else Gullich had done, and he had to realize substantial gains in strength and power to achieve it. For a climber who was already enormously strong, that’s an impressive accomplishment. We have the bene-fit of learning from his experience.

Gullich dedicated much of his life to redpointing hard routes, eventually realizing that no matter how sustained a route was, if he could do all the individual moves, he could eventually do the route. In order to succeed on routes that were harder than anything else in the world, he would have to train himself to be capable of doing harder moves.

Gullich designed his “campus” board to isolate his weaknesses and break through his redpoint plateau. Jerry Moffat, perhaps the world’s most successful climber at that time, worked out with him. “I trained on [the Campus board] stacks that winter and got dead strong. I went out and climbed 8b+ [5.14a] straight away. I was doing them in a couple of tries.” - an almost unheard of level of performance at that time.

Moffat stressed the importance of training strength and power, even in a case where falling off at the top might point to a lack of stamina. The physiologists can explain this with technical details about muscle contraction and blood supply, but Moffat said it best, “If the hard moves at the bottom of a route start to feel easy, you’re going to be less pumped by the time you reach the top.”

Training.

The principal reasons for “campusing” are to train upper-body power and muscle fibre recruitment. To understand what we’re talking about, let’s make a few distinctions. While strength is the ability to maintain muscle contraction against a maximum load, power is the ability to generate a maximal contraction rapidly. Strength, then, is more of a static force, while power is dynamic.

A campus board is an excellent tool for training strength, but its greatest asset by far is its ability to train power. If a hold on a climb can’t be reached under static strength, you need to move towards it explosively and that’s where power comes in.

We define recruitment as the ability to fire as many of the fibres in a given muscle as possible at once. You need to increase your recruitment, not just for initiating a dynamic move, but also for “sticking” the target hold. While catching the target depends on timing and coordination, if you can’t contract enough muscle fibres rapidly enough, you won’t be able to hang on to it. Recruitment, then, especially forearm recruitment, is the key to sticking hard deadpoints, and “campusing” is the best way we know of to improve it.

In the normal course of campus board training, you will also realize huge gains in dynamic technique: timing, coordination, confidence, etc., as well as static strength. “Campusing” will improve all aspects of your climbing.

How much you should emphasize campus board training depends on your goals. Those wanting to improve their on-sight climbing should use it sparingly and concentrate on doing more climbing mileage, while those interested in succeeding on hard redpoints or boulder problems should use it as a primary training method.

The board should be used in conjunction with other forms of training, for spells of 4 to 8 weeks, not continuously throughout the year. Gradually increase usage, from once a week to as much as 2 or 3 times a week, and then taper back down, as you re-emphasize other forms of training. As top climbers know, power takes a long time to gain, but once you have it, you retain it for much longer than endurance.

Fresher is better.

When campusing, the general approach is different than when training for endurance. On the campus board, the idea is to do the hardest exercises that you can, in perfect style. You should only train on a campus board after a rest day or when you are completely recovered from your last climbing or training session. Additionally, you must rest after every exercise within your campus routine long enough to recover completely. Three to five minutes is the norm, but you can rest as much as 10 minutes if necessary. Power can only be trained on a totally fresh muscle.

How much is too much?

You're determined to see an improvement, so you want to keep at it for hours, but you're playing with fire. On a campus board, more work does not equal more gain; it equals injury. Never train to exhaustion on a campus board. Do the hardest moves you can in good style and comeback two or three days later. Be patient and remember: so long as you don't get injured, you will get stronger.

As a general rule, it's okay to do one to four sets of any given exercise. As long as you are improving or maintaining from one set to the next, it's okay to continue with that exercise. As soon as you are weaker on one set than the last, it's time to move on to another exercise or call it a day. Several exercises are described here; you cannot train all of them in the same session. Choose a couple of exercises each time and concentrate on those. Stop your session and begin your warm down when your muscles have lost their "snap".

Rest.

Resting is perhaps the best thing about campusing because you get to do more of it than with other types of training. Rest, rest and rest some more. Although well-conditioned campus addicts may rest for only about two full days after every session, if you push yourself hard, take three or four days off. Don't expect quick results. If you feel like you're resting too long, not doing quite enough, that's good; that's how you should feel.

Warm up, warm down.

It is critical to warm up thoroughly; much more so than with other forms of training. You can start by climbing, bouldering or doing easy pull-ups and dead hangs, along with gentle stretching. Make the first fifteen minutes ridiculously easy and gradually increase the intensity until you're at full power.

Reverse this process at the end of your session to prevent injury and speed up recovery. The warm down should be even easier than the warm up. It should feel as if you are doing almost nothing. The idea is just to keep the blood flowing for 15 or 20 minutes after the high intensity part of your workout.

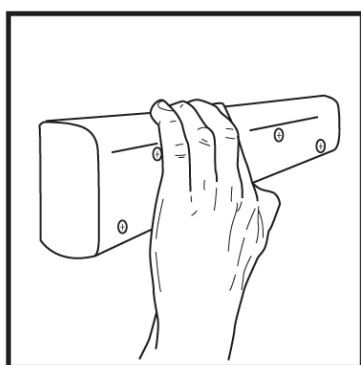
A typical session might involve up to an hour of pull-ups, stretches and climbs up and down the board on the larger holds, with all of the high-intensity exercises done in the next 20 to 30 minutes, followed by 15 to 20 minutes of warm down.

Stretching.

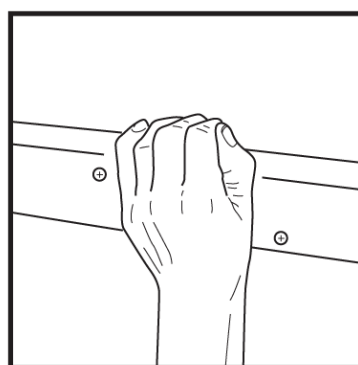
Stretching is simply insurance against injury. Stretch regularly and you'll wonder why you bother, but don't stretch and one day you'll suffer. It's a good idea to stretch between sets and critical to stretch after the session, but be careful about stretching before your workout. Never stretch a cold muscle.

How to hold the rungs.

You want to use an open-handed grip as much as possible. Most climbers are weaker open-handed than crimped, so you may find this hard at first, but you'll get used to it. Training open-handed will increase your crimp strength (but not vice-versa), and it is essential for holding pockets, slopers and certain edges, as well as making moves at maximum stretch, and catching dynos. Most importantly, however, using an open hand lowers the potential for injury. As you adapt to campus training, you can incorporate a little crimp training to increase your maximum edge-holding power, but keep it to a minimum.



open hand



crimp

What's the point?

The deadpoint is an instant in time, at the apex of any dynamic move, when you are neither rising nor falling. In all dynamic moves, large dynos or short snatches, the goal is to be in perfect position to grasp the target hold during the deadpoint. As you perfect this technique, the deadpoint will begin to feel like an instant of weightlessness. As you continue to improve your timing and coordination, the deadpoint will seem to get longer and longer.

“Campusing” is one of the best ways to improve your all-around “dead-pointing” skill. Because you train movement between holds at varying distances, you learn how to generate the precise force and timing required to catch holds accurately and consistently. It cannot be over-stressed how fundamental dynamic moves are to good climbing technique. A well-executed dyno is often more efficient than a static move, even when it's not strictly necessary.

Alternate your leading hand.

You should do most sequences as pairs, first leading with one hand, then with the other. This avoids over-training your strong side and keeps you balanced.

Making it easier.

If you find some of the moves or exercises suggested here too difficult to start out on, put your feet on the wall behind the board, to take off as much weight as necessary.

The exercises.

Power Throws

This fundamental exercise trains forearm recruitment, upper-body power and deadpoint accuracy through explosive upward moves between rungs at various levels. Each sequence involves two moves plus matching at a hold.

Number the rungs 1, 2, 3 on up, starting with the lowest. With your feet hanging free and both hands on the lowest convenient rung, launch for another rung with one hand, then reach for an even higher rung with the other, match, and you're through. For example, match and hang on rung 1. Throw with your right hand to rung 4, then pull through to rung 6 with your left. Match on rung 6 and drop.

Try to complete the same exercise by using every possible sequence of holds between the lower and upper chosen rungs, for example: 1-2-6, 1-3-6, 1-4-6, 1-5-6. Different push-pull forces, as well as different timing, are required with hands at different levels and although the moves in the middle range will feel easy, those at the extremes will not. Also, try going all-out for the maximum total distance, say 1-4-8 or 1-5-9.

*Remember to lead with alternate hands.

Doubles & Plyometrics

Moving both hands at the same time is a great way to improve overall coordination. It also builds recruitment and confidence. Begin by doing the easiest moves to feel this out. Just jump from one rung to the next.

Eventually, increase your range and stack a series of doubles together, climbing up the board and down again. An advanced version of this is the "two steps forward one step backward" routine: 1-3-2-4-3-5-4-6 etc.

A related exercise is plyometric campusing, which involves dropping both hands from a higher hold to a lower one (a reverse double dyno), then jumping up again as fast as possible. The key is absorbing the downward motion and reversing the force into an upward motion as rapidly and smoothly as possible.

Be careful not to overdo it. This is a very advanced exercise, and the potential for injury is very high. Never catch a hold with your elbows locked or extend all the way to a locked elbow on the negative contraction. Feel out your tolerance with some easy moves on large holds the first few times. Introduce this exercise gradually, a little more each week for a few months. Even when you've adapted to high intensity campus training, don't do hard plyometric sessions more than once a week.

Static Moves & Lock-Offs

Any kind of campusing will improve your static strength as a spin-off, but you can train it specifically by doing small "power throws" slowly and as statically as possible. Also try "laddering" up and down the board a rung or two at a time, without dynoing.

Static lock-offs can be trained by putting your feet on the wall behind the board, to take as much weight as necessary.

As with all campus board exercises, make the moves hard enough to keep the total number of repetitions low (3-5 on each arm). The idea is to train maximum force, not endurance.

Variations

When you feel like you've adapted to full hand training, you might want to try isolating fingers. Two fingers is the norm here, but don't be afraid to mix it up. As with everything, build up slowly. You might want to start by doing dead-hangs and pull-ups with various combinations of three, two, or one finger. Again, use the wall or a chair to take weight as necessary.

It is important also to realize that different sized holds will train different muscles. If you've been focusing your training on small holds, forearm strength may no longer be your limiting factor. You should also train longer moves on larger holds for a while, to increase the recruitment of your upper arms and torso.

Incut or flat holds will slightly alter the muscles used and it's worth experimenting with as many types as possible. The more you vary your training, the more effective it will be.

What works for you.

While we are not sports physiologists, we do have a lot of hands-on experience and have learned from some of the best climbers in the world. However, exercises that work for us may not work for you and vice-versa. Experiment with your own program and figure out what works best for you. Always remember to warm up thoroughly, start small, and take plenty of rest days.

Don't forget to go climbing.

Finally, of course, the whole point is to improve your climbing. "Campusing" is a powerful tool for improvement, but any gain made on the board will require a period of adaptation on the rock for you to see its full value. So go climbing, have fun, and remember, all it takes to succeed is a modicum of talent and a lot of dedication.