

Coach Wise

Climbing Demystified



Part 1: Don't Stray Off-route!

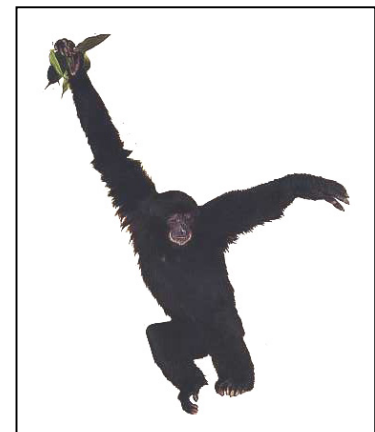
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Learn from the best

Who are the best animals we can compare ourselves to for climbing? - apes! Watch some footage on youtube of them climbing. How can you describe their climbing style in one word? That's right, they *swing*. Swinging in fancier language is using momentum to accelerate the body or parts of it in the direction you want to go. Climbing statically is extremely inefficient for the vast majority of move types. Which direction is the next hold? Which part of your body can you swing away from it, before swinging back and taking advantage of the momentum to get to the next hold without using strength? This use of momentum is really exaggerated when the climbing is steep but the holds are good and work from any direction (like steep juggy climbing wall routes). But when the holds get bad, you can tolerate less movement away from the wall surface before the holds get really tough to hold onto. But don't try to be static. Just make the momentum more subtle.

Swinging your trunk, hips, shoulders legs or arms to help initiate moves between holds reduces the need to apply large forces through the prime movers of the body (an especially powerful advantage for female climbers). It also lowers peak force on the handholds when you reach and hence take one hand off, meaning you can climb on smaller holds.

If you feel you are stronger than other climbers who climb a higher grade than you, or you have had one or more overuse injuries in your elbows, you probably don't use enough momentum in your moves.



Swing more. Lock-off less

Beware of being too strong

Strength training is a double edged sword in climbing. Let me explain the deeper reason why:

The old adage is that for someone with a hammer, everything looks like a nail. It's a warning that people who are only good at one thing often believe that the one thing is the answer to every problem. And it's a good warning.

Basic strength training, especially for the fingers, is a passport to higher grades, but only when used as a supplement to real climbing. Where climbers go wrong is they do something like campusing or fingerboarding instead of real climbing. So they get strong but forget how to climb. See the 'Top Tip' for more on this subject.

The big three

The big three trainable/controllable factors for climbing ability are movement technique, finger strength and body mass. The best of the rest are psychological factors (with a million subdivisions), discipline, nutrition, equipment, lifestyle and circumstances.

The rule of thumb when planning your training is to prioritise the big three ahead of everything else, then try to add in as many of the other aspects as you can. The goal is to have all the factors working in your favour to some degree, as opposed to being really good at one or two and terrible at others. So when making any decision about planning or doing training, just think if you are doing enough to cover the big three, or is there something else you could do to include more factors as well.

If you play out some examples of how this might work in practice, it's easy to see how you can stray away from the big three in your overall schedule. For instance, only doing trad climbing for a whole summer might be great for your movement technique, psychological fitness and maybe body mass if you are having long days in the mountains, but you might go backwards in finger strength and endurance. One of the big three is missing! A little sport climbing, indoors or out from time to time will allow you to maintain the fingers strength while you improve other aspects.



Big three No.1 Movement technique

The most basic rules for making sure you improve your technique steadily are:

- Climb lots and vary everything.
- Vary the venue, discipline, angle, rock type, hold manufacturer, climbing partners - everything, all the time!
- Read the rock; think about what the sequence might be from the ground. Get into the habit of doing this.
- Hang out with good climbers, or at least watch them as much as you can. You will subconsciously pick up their techniques.

Big three No.2 Finger strength

- Build it slowly. We are not anatomically designed to get strong fingers, so trying to shortcut the process of getting strong by training too hard for a few months gains only finger injuries. Spread the load out over the whole year. Train your fingers on small holds, just as much as you can, every week, year round.
- Get strong on every grip type. Most climbers only get strong on crimps and neglect openhanded strength. All of them get injured sooner or later. Don't make that mistake. The objective is to be equally strong on pocket grip openhanded, four finger openhanded and crimp grip. Compare your strength on by counting the number of pull-ups you can do on a small edge using the different grips. If one type is weaker, focus on it and don't stop until you've equalized your strength. This will make you stronger and protect you from injury. For most climbers this process will take a couple of years. Are you patient enough?

Big three No.3 Body Mass

- Being light is important in climbing. There is no way round it. There are some notable exceptions, whose genetic somatotype allows them to be heavy because the muscle is in their upper body where they need it. But most of us aren't built like that.
- If you have excess body fat, get rid of it! Don't be under any illusion - it's holding you back.
- Get your weight to an optimum level with a standard healthy diet and general moderation of unhealthy food. Fad diets or heavy restriction of calories is almost guaranteed to backfire in the longer run.
- Many people could achieve this purely by manipulating alcohol intake and hardly touch the rest of their diet. But ingrained habits, especially those you share with your friends, die hard!

I'll talk more about the secondary factors affecting climbing ability in future articles. But I wanted to start with the most important things first and to really underline just how important they are. So, if a week goes by and you haven't done any technical moves, can't remember the last time you pulled on a first joint edge, or you read this with beer and chips in hand. You know what need to change first.

Top Tip:

Beware of being too strong

Strength training is a double edged sword in climbing. Let me explain the deeper reason why:

Learning technique is simply gaining and reinforcing habits. These can be bad or good habits. The problem here is that climbing is not a simple activity. In boulder problems of two or three moves, the challenge is to deliver as much force to the holds as you can. No holding back, just explode with every muscle fiber maxing out. But anything of four moves up to multi-pitch climbs can have totally the opposite requirement, to save force and energy. To use as little as possible. On medium length routes it's even trickier - you have to be able to switch from efficient energy saving, relaxed mode to all guns blazing bouldering mode for the crux, and instantly back again. This all makes climbing fun of course and more interesting than a basic activity like weight lifting.



But it presents a problem for learning. When we climb there is so much going on, footwork, reading the rock, protection, pacing, dealing with fear and making the moves. We make hundreds of movement decisions just to make a single move. So most of these have to be subconscious otherwise we would be overwhelmed. We can only focus on one or two important decisions at any given moment. The way you naturally climb is shaped by what you do day in day out. Lets see this in practice.

You want to climb harder on a steep sport climbing (e.g. a 7a at the climbing wall). You feel you are not strong enough so you start to boulder and hang from fingerboards several times a week for a whole winter season. Well done! You've got stronger, and that's what you needed. But you have created a potential problem too. Each of those sessions reinforced in your brain (at a subconscious level) that climbing is about pulling harder.

So you go for the 7a and can do the moves fine, but now you are breathing hard and getting pumped and still cannot do it. In fact, maybe you aren't much closer than when you started? What's going on? This happens to many climbers who start to take their training a bit more seriously and make an effort to get stronger. Basically, the body falls into the habit of pulling as hard as possible, and falls out of the habit of saving strength. Of course you can apply this to any other aspect of climbing skill or fitness.

By focusing too much on one weak area, you have let other essential skills become forgotten. Because they are used subconsciously in climbing, you can't just recall them whenever you want. You must practice them as consistently through the year as you can to avoid losing them. The reason this type of situation happen to so many climbers is they tend to focus on one thing (like indoor bouldering, or trad cragging) for several months at a time at the exclusion of everything else.

You are constantly sliding back to the start of the ladder in one variable while desperately trying to climb another. The answer here is to *maintain* your strengths while working on weaknesses or higher priority aspects of climbing. Maintenance is one of the most underrated aspects of improvement in sport in my opinion and missing from many articles and books on training for sport. Just think of your climbing ability as a plate spinning exercise. If you do just a little work to keep all the plates spinning, you have time left over to make steady progress in one area. But focus entirely on one thing and ignore the others, and very quickly you end up back at square one with one plate spinning.

The most common maintenance error among climbers is to climb regularly at the climbing wall all winter long and emerge in spring with gains in fitness in the bank, then proceed to fritter it all away climbing bold (but physically not too taxing) trad climbs all summer. So you start from square one again the following October. Do this for twenty years and you will still be at the same grade (as most climbers are).

Solution: Maintain your winter gains with one evening (or two if at all possible) at the climbing wall year round. That way you can pick up where you left off the next autumn and build grade upon grade as the years go by. I know at least two Scottish climbers who broke their personal best grades (7c+ and 8a) around age 60 with this approach.

The best situation is to start climbing as a complete weakling and learn to really climb hard (i.e. battle), then get super strong. Those who start off strong tend to value strength too much, never learn how to try really hard and never learn good technique. If you are strong, you are probably going to have to spend a lot of time seeking out super technical climbs on many rock types and climbing with weaklings who are better than you to learn to be efficient.

Don't lurch from one type of climbing to another exclusively. Maintain one, build another, piece by piece.

