



A FINGERS-FIRST
APPROACH TO
BECOMING
A BETTER
CLIMBER

BEASTMAKING

NED FEEHALLY

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FOREWORD

The exponential rate at which our sport has grown is hard to comprehend. The past decade alone has seen grade boundaries shattered, the emergence of countless prodigies, the birth of dedicated elite training facilities and the introduction of climbing as an Olympic sport. Most outrageously, though, climbing has become cool – I mean, no one saw that coming!

The growth of climbing has seen many people look to the professionals for answers to the question of how to get better. Who doesn't want to know what the secret is? So, where are the famous coaches, who is doing all the research and where can you buy the best training programme ... ?

However, our sport is about so much more than spreadsheets and numbers. It transcends the boundaries between traditional sport and action sport. It's a sport that at any level combines performance and style while requiring composure and resilience.

It seems as though we are at a point where the science and the research are trying to

catch up, with a multitude of studies and data trying to categorise inexplicable levels of ability that simply do not come down to basic levels of strength or endurance. Climbing is as much an art form as it is a matter of physical ability.

That being said, most of us can certainly benefit from more understanding of how to train and what to train in order to become stronger. The getting better bit is a little more complicated.

Ned has spent the last 20 years exploring his fascination with the intricate details of what makes elite climbers good and how they get to the top of the sport. His obsessive tendencies have ensured he's not only tried and tested pretty much everything he's learnt, but he's also (very neatly) documented everything. Ned is practical; he's pragmatic and is a self-proclaimed geek when it comes to training.

Read this book with the desire to improve, the dedication to action what you learn and the belief that you can achieve your goals.

Shauna Coxsey



INTRODUCTION

If you've picked up this book you are probably interested in improving your climbing, and you're willing to put some effort into doing just that.

Great, you're in the right place.

It seems as if climbers are always looking for a shortcut to improving. They might pay a coach in the hope that this will automatically make them better, or they might buy an online training programme which has convinced them that it will add a few grades to their climbing. Similarly, they might be happy to buy a fingerboard – and maybe even put it up in their house – before realising that thinking about and actually training on it takes some effort, and the benefits of simply owning a fingerboard are fairly limited.

However, some people are *really* keen to improve, but struggle to know exactly how they should go about it, and even where they should start.

The idea of this book is to provide you with enough information so that you can work out what you need to train, and to help you to train it, but without things being data and jargon dense and too much of a chore to trawl through. I hope that it will give you some new

ideas, fresh knowledge and inspiration for your training.

But, just so we are clear from the beginning: there is no shortcut to improving! You'll not find a magic formula in this book. It simply doesn't exist.

While there is an increasing amount of science and data-driven training information out there, climbing is a relatively young sport. The amount of scientific studies into climbing is still very limited. It feels like we're at the stage where the science that's getting done is simply backing up what we have been crowdsourcing in the climbing scene for the past 40 years!

When it comes to writing, filling up a book with citations might make me look clever, but, let's face it, most of you aren't going to be interested in reading up behind the scenes. While I personally find the data-heavy training information out there quite interesting, I appreciate that not everyone is into this. If you're looking for hard facts, science and references then I encourage you to do some extra reading. My experience is that most climbers either just want to know what is best for them to do, or they just need some inspiration and a place to start – they



**FINGERS:
GRIP TYPES
& FORM**



THREE-FINGER DRAG.

Everyone's hands are different. We all have hold types and grip positions that we find naturally easier or harder to use. Some of us are great on slopers, while others favour crimps. Relative finger length will play a role in which grip types we prefer because our fingers will sit more comfortably in certain positions. Generally speaking, we are strongest when our wrist is relatively straight, and so we'll probably prefer to hold on with a grip position which keeps our wrist as straight as possible.

Let's take a look at the grip types and finger positions that we come across while climbing and training.

GRIP TYPES

THREE-FINGER DRAG (PASSIVE)

The three-finger drag relies on flexion at the DIP joint (plus a bit of bend at the PIP joint of the middle finger) and a lot of friction between the pads of the fingers and the hold.

This grip type can be very useful as it gives maximum reach, and it's possible to manoeuvre around the hold fairly well while maintaining grip by slightly flexing each of the outer fingers, which allows good wrist movement. It's also very good on sloping holds where friction is essential, because of the large contact area of skin with rock.

Some people find this grip position to be their strongest, while others struggle with it. However, since there is ultimately less skin in contact with the hold than with four fingers, grip/friction can be a limiting factor on certain holds. And, unsurprisingly, this grip type tends to work less well for climbers who have sweaty fingers!

This is quite a passive grip type, and on steep terrain it's not always that useful as you can't get your fingers into the back of the holds to help you pull inwards as well as downwards.

FOUR-FINGER OPEN HAND (PASSIVE)

With the four-finger open hand grip, the index finger is straight, the middle two fingers are bent at the PIP joint and the pinkie is straight. This grip type is often favoured by people who have a relatively short index finger compared to their middle two fingers. It's mechanically pretty strong since there is limited bend in the fingers.



FOUR-FINGER OPEN HAND.

This grip type does not tend to work well if the index and middle finger are similar lengths. In this case, the wrist must bend outwards in order to keep the index finger straight. This results in a weird wrist angle, and reduced strength through the system.

This grip type is really good for simply hanging from edges, but it tends to be a bit limited in real-world climbing situations as the wrist can't move much around the hold. It's also difficult to really pull inwards on steep terrain with this grip type.



HALF CRIMP.

HALF CRIMP (QUITE ACTIVE)

With a half crimp grip, there is a 90-degree angle – or as close to this as the fingers will go – at the PIP joint of the index finger and middle two fingers. The pinkie will be straight. If you have a shorter pinkie, you will require more bend in your front three fingers to get the pinkie on the hold.

The half crimp is probably the most commonly used grip type. I'm not sure if this is because most people's finger lengths lend themselves to this grip type, or whether the predominance of comfy first-joint edges at indoor climbing walls in recent years has led to people favouring this grip type.

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LONG MAX HANGS

Long max hangs are geared towards increasing muscle size and strength in the forearm which leads to slower but potentially longer-lasting gains in strength.

TENDON HANGS

Hanging for even longer can increase tendon stiffness, which increases contact strength – the ability to grab on really fast – as there's less give in the tendons. It's also good for the general health of your connective tissues.

EXERCISE	Long Max Hangs
GOOD FOR	Strength: muscle size and longer-lasting gains
DESCRIPTION	Hang for 20 seconds. This is one rep. Three to five reps = one set.
SETS	One set can be enough, or repeat for up to five grip types.
LOAD	Adjust the load so 20 seconds is the absolute maximum you can achieve.
REST	3 to 5 minutes between hangs, or as long as you need so you can give 100 per cent effort again.
PROGRESSION	Add weight. More hangs per grip type. Use smaller holds. One arm instead of two.
HOW LONG FOR	I think you should always be training finger strength to some degree. Cycle between finger training methods throughout the year to keep your body on its toes.
WHEN	Always train strength when you're well rested and fresh.

EXERCISE	Tendon Hangs
GOOD FOR	Contact strength and tendon health
DESCRIPTION	Hang for 30 to 45 seconds. This is one rep. Three reps = one set.
SETS	One set per grip type; up to three sets in total.
LOAD	Adjust the load so you fail at about 45 seconds.
REST	5 minutes between hangs.
PROGRESSION	Add weight. Use smaller holds.
HOW LONG FOR	I think you should always be training finger strength to some degree. Cycle between finger training methods throughout the year to keep your body on its toes.
WHEN	Always train strength when you're well rested and fresh.



THE AUTHOR ON JACK'S BROKEN HEART, MAGIC WOOD, SWITZERLAND. © SHAUNA COXSEY

ONE ARM OR TWO?

Any fingerboard exercise can be performed on one arm or two arms.

Two-arm hangs are great as you can pretty much guarantee that the weak link in the chain will be your fingers, rather than your arms or shoulders. The reason you will fatigue and fail at an exercise is because your fingers

are getting worked, not because some other part of the system is struggling.

One-arm hangs are great for climbers whose arms and shoulders are strong enough that they can perform them. You can put a lot of load through your fingers, without having to hold on to really small holds.

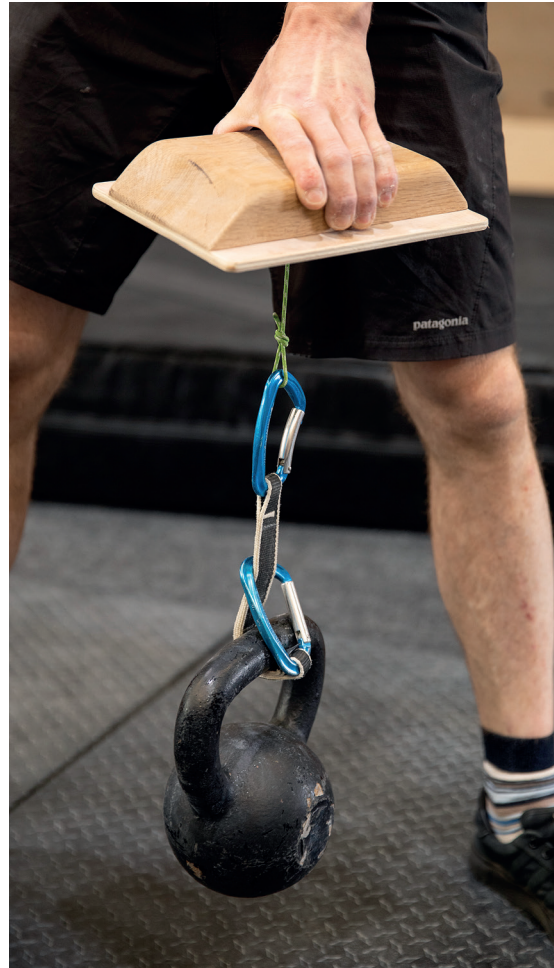


PINCHING

BEASTMAKING



NARROW AND WIDE PINCH BLOCKS.



Most modern indoor training lends itself to developing good pinch strength as most bolt-on, screw-on and wooden holds tend to stick out from the wall, so usually offer somewhere

for your thumb to oppose your fingers. This is great, as being able to pinch really hard seems like it should only be a good thing.

TRAINING PINCH STRENGTH

However, I have found that outdoors, pinches aren't as common a hold type as edges. I have never been amazing at pinches, and because I can't think of many climbs that I really want to do that revolve around pinches, I don't worry too much about training my pinch strength. However, I can see certain situations where amazing pinch strength would be very useful – such as competition climbing on volumes, hard tufa climbing and a lot of granite bouldering.

One thing I find with pinches, especially larger sizes, is that they are very often hand-size specific. If a pinch fits your hand it may well feel juggy, while for someone else who isn't able to get their thumb in the right place, it might feel impossible to hold.

One area that I have worked on a lot is narrow and small crimped pinches. I have found that training on this style of hold has really helped my crimp strength, as the fingers are in the crimped position while the thumb is in opposition. This gripping style can be useful on rock, on closed seams or crimps in roofs where you can't wrap your thumb over the top.

Shauna has tiny hands. She's very comfortable on small pinches but can find big pinches quite hard to use. As a result, she's spent a lot of time stretching her thumbs to increase their range and this has allowed her to get her hands around bigger pinches.

It's quite difficult to isolate pinch strength while climbing as you can often wriggle around pinches, rather than just engaging the thumb and squeezing. Turning a pinch into a sidepull is the classic way of avoiding the issue.

PINCH BLOCKS

Pick up weights with a pinch. This is a great way of isolating the hand and forearm muscles as you can't use any compression to hold on, just thumb squeeze. Whether the hand position alters the effectiveness remains to be seen, as when climbing you'll usually be pinching above shoulder level, and when picking up a pinch it's below shoulder level.

Pinch block training is definitely a useful method of developing pinch strength – it's simple and it's measurable. Treat the pinch block like you would a standard fingerboard exercise – pick up and hold a certain amount of weight for a particular length of time.

Also, use a pinch block that's the correct size for the size of pinch you want to work on and train. Remember the 15-degree joint angle rule (see page 66). You'll only gain strength at about +/- 15 degrees of the joint angle that you're working on. Training with a huge fat sloping pinch won't help you if your project involves holding on to a really skinny pinch where all your fingers are basically in a crimped position.



PRO TIPS

TOMOA NARASAKI COMPETING AT THE 2018 IFSC CLIMBING WORLD CHAMPIONSHIPS IN INNSBRUCK, AUSTRIA. © RYU VOELKEL

ALEX PUCCIO

Alex is one of the strongest climbers on the planet, with some of the best pinch strength I have ever witnessed. She has won 14 bouldering world cup medals and climbed multiple Font 8b+ boulder problems. Since shifting her focus entirely to rock climbing, she has been racking up a huge tick list of hard, powerful boulder problems around the world, including *New Base Line* in Magic Wood, and *Jade* in Rocky Mountain National Park.

What is your 5-second maximum one-arm hang on the Beastmaker 2000 middle edge? (How much weight can you add and hang for 5 seconds?)

I have not really trained this at all, but have tried it a few times. The last time I tried it I weighed 57.6 kilograms and I was in the UK. Robin [O'Leary] wanted to see what I could hold, so he kind of tested me, but I didn't really rest much at all between different weight tests and it was at the end of a session. He had me start with something like 5 kilograms and he just kept jumping up in weight. I hung with 27 kilograms pretty easily for just over 5 seconds and so he had me try 29 kilograms and I hung for somewhere about 4 seconds. I haven't tried it since!

How long can you hold the Beastmaker six-millimetre micros for (two arms!)?

I have actually never tried to hang them or any of the sizes as long as I can, but instead I do sets of pull-ups on them or do a repeaters workout on them. For the pull-ups, I normally do something like five to eight pull-ups on the six-millimetres and then rest and do it again three or four times.

What is your maximum number of one-armers?

Six on a jug, two on the 10-millimetre edge. And my best clean one-arm pull-up with weight added is with +11 kilograms.

What is your favourite finger strength exercise?

Honestly, I have never really done a finger strength phase. When I get fitter and stronger and climb on rock A LOT, I normally can test everything and see I have massive gains. Maybe not quite the answer you are looking for, but for me, climbing all the time on rock makes my fingers the strongest.

What is the most common mistake people make when training?

Since coaching a lot of people at all different ability levels, I've noticed that people want to get strong or better too quickly, and they don't realise you actually have to be patient with all of it. Also, a HUGE thing is that lots of climbers actually avoid their weaknesses. I see lots of people who don't like to get on the 'easier' grades that feel hard for them, but they'd rather get on the 'harder'-graded climbs they can do. You won't become a well-rounded climber this way!

What is your advice for climbers who want to improve?

The hardest part is always starting! When starting a new training plan with exercises that you don't necessarily like or want to do, for me it's cardio, you just have to start doing it. Once you have started and got the ball rolling and into a routine you will feel very different about it all and get more and more

