



# HOW TO CLIMB HARDER

Mark Reeves

**A PRACTICAL MANUAL**

ESSENTIAL KNOWLEDGE FOR ROCK CLIMBERS OF ALL ABILITIES





# HOW TO CLIMB HARDER

Mark Reeves

First published 2010

Published in Great Britain 2010 by Pesda Press

Unit 22, Galeri

Doc Victoria

Caernarfon

Gwynedd

LL55 1SQ

©Copyright 2010 Mark Reeves

ISBN: 978-1-906095-11-6

The Author asserts the moral right to be identified as the author of this work.

All rights reserved. No part of this publication may be reproduced, stored in a retrieval system, or transmitted, in any form or by any means, electronic, mechanical, photocopying, recording or otherwise, without the prior written permission of the Publisher.

Printed and bound in Poland. [www.polskabook.pl](http://www.polskabook.pl)

# Contents

THE AUTHOR .....	5
ACKNOWLEDGEMENTS .....	7
PARTICIPATION STATEMENT .....	8

## **How to Climb Harder** **9**

LAZY CLIMBING .....	10
---------------------	----

## **Learning** **11**

## **Safety First** **15**

RISK: TOP ROPING .....	16
EQUIPMENT CARE .....	41
RISK: LEAD CLIMBING .....	44
RISK: BOULDERING .....	52

## **Warming Up: Body & Mind** **57**

STRETCHING .....	60
EXERCISE YOUR MIND .....	65

## **The Basics: Footwork & Balance** **67**

## **The Basics: Handholds & Body Position** **75**

CRIMPS .....	76
CUPPING .....	78
SLOPERS .....	79
PINCHES & SPRAGS .....	79
JAMMING .....	80
ORIENTATION .....	87
FLAGGING .....	89

## **Basic Hands-off Rests** **91**

LEDGE REST .....	92
SLAB REST .....	92
CORNER REST .....	93
ARÊTE REST .....	95
CHIMNEY REST .....	96
ONE-FOOTED REST .....	97

## **Moving Up** **99**

ROCK-OVERS .....	99
CORKSCREW ROCK-OVERS & THE RULE OF OPPOSITES .....	102

CORNERS .....	105
THE LAYBACK .....	106
THE MANTELSHelf .....	108
ARÊTES .....	110
CHIMNEYS .....	111
ROOFS .....	113
OVERHANGING WALLS .....	115

## **Advanced Technique & Bouldering 117**

## **Putting It All Together 131**

GUIDEBOOKS .....	132
READING ROUTES .....	134
STYLE OF ASCENT .....	136

## **Lead Climbing Techniques 139**

CLIPPING QUICKDRAWS .....	139
ORGANISING YOUR RACK .....	143
WHAT'S IN YOUR RACK .....	144
PLACING GEAR EFFICIENTLY .....	153
RISKY LEADS .....	154
SINGLE VS DOUBLE ROPES .....	155

## **Mind Games 159**

FEAR OF FALLING .....	174
-----------------------	-----

## **Training: Basic Principles 175**

THE WEAKEST LINK .....	176
GOAL SETTING .....	178
BASIC TRAINING .....	180

## **Training: Strength 185**

GENERAL STRENGTH .....	186
SPECIFIC STRENGTH .....	186
MAXIMUM STRENGTH .....	195
EXPLOSIVE STRENGTH (POWER) .....	196

## **Training: Endurance 199**

## **Training: Fitness 203**

TRAINING: THE YOUNG CLIMBER .....	207
-----------------------------------	-----

## **Nutrition 211**

EATING DISORDERS & SPORT .....	218
--------------------------------	-----





Mark Reeves (self portrait) on top of the First Flat Iron in Colorado, on the outskirts of The City of Boulder, during a three week tour climbing some of the United States of America's classic rock climbs. Managing to climb a total of sixteen routes, eighty pitches and covering over 2,000 miles.

You can keep up with Mark's latest travels, climbs and coaching tips at [lifeinthevertical.com](http://lifeinthevertical.com)

Book the climbing course of a lifetime at [www.snowdoniamountainguides.com](http://www.snowdoniamountainguides.com)

## THE AUTHOR

---

### Mark Reeves

Mark has been a rock climbing instructor since 1997, working throughout the length and breadth of North Wales. In 2005 Mark completed the Mountain Instructor Award whilst working for Plas y Brenin and has been a freelance/associate Instructor for them ever since. Mark has sought to develop his coaching to the highest level through various forms of Continuing Professional Development, including BMC Fundamentals and Learning to Train courses, Plas y Brenin's Coaching Processes course and finally completing an MSc in Applied Sports Science at Bangor University.

This book brings together the academic, practical and personal skills he has developed over the last thirteen years as a climber and coach; climbing routes of all different styles ranging from Diff to E5 in over ten countries. In essence this book is a shortcut to all Mark's accrued knowledge over his long and successful professional and personal climbing career.

The Author and Publisher of this book agree with the BMC Participation Statement that:

**“The BMC recognises that climbing and mountaineering are activities with a danger of personal injury or death. Participants in these activities should be aware of and accept these risks and be responsible for their own actions.”**

Every effort has been made to ensure that the content and instructions in this book cover all aspects of personal safety skills and techniques required in Rock Climbing. The Author and Publisher cannot accept any responsibility for any accident, injury, loss or damage sustained whilst following any of the techniques described within.

If you feel that you need additional instruction in order to use this book then it is advised that you employ a suitably qualified and experienced instructor.

The diagrams, photos and illustrations throughout the book are available to download as teaching resources for your own slideshow presentations.

**visit: [www.pesdapress.com/climbharder](http://www.pesdapress.com/climbharder)**





## ACKNOWLEDGEMENTS

---

This book was born out of a personal challenge to improve my own teaching and coaching as a mountaineering and climbing instructor. I have been guided and influenced by many coaches in many disciplines and walks of life. In particular working on the Instructor Scheme and subsequent years freelancing for Plas y Brenin, the National Mountain Centre, I have come under the stewardship of many highly qualified and experienced instructors who started me on the path which lead to this book. In particular I would like to extend my thanks to the following staff at the centre; Martin Chester, Pete Catterall, Loel Collins, Si Colley, Mike Raine, Jon 'Spike' Green, Dave Hollinger, Stu McAleese, Neil Johnson, Carlo Forte, Louise Turner and Pete Firth as well as others who are too numerous to mention. I have been given encouragement, inspiration and knowledge by all. Some of you may recognise some of your teaching methods in this book.

Conversations with other guides, instructors, teachers, coaches and climbers on the subject have shaped my thinking. They are also too numerous to mention, but Llion Morris, Liz Gunby, Libby Peters, Steve Mayers, Bryn Williams and Katherine Schumacher have been most influential.

Other influences have come from more mainstream sources like Dave Binney (BMC National Squad Coach) and his FUNDamentals Course and the BMC National Source Group for Coaching, which I have become involved with through BMC Cymru/Wales. I have sought to cover many of the areas that the United Kingdom Coaching Council recommend for their coaching schemes.

On top of the expertise of coaches and instructors many friends and acquaintances have helped me fashion these ideas into plain English. These people include Sonja Drummond, Helen Baker, Cheymoon O'Reilly, Rob Wilson and Sarah Clough.

Finally my thanks are extended to the staff at University of Wales, Bangor, who tutored me through the taught elements of an MSc in Applied Sports Science, in particular Mike Khan for his work of skill acquisition, Nicki Callow for sport psychology, Jamie MacDonald for the physiology and Ross Roberts for supervising my thesis on imagery and climbing.

There will be people that I have forgotten to thank and for this I apologise, although the last people I should acknowledge are Franco Ferrero for believing in the project and agreeing to publish this and Pete Wood for turning my scribbles and photos into a book.





## How to Climb Harder

(Above) Rebecca Williams eyes up the crux on Seamstress (VS), Dinorwic Slate Quarries.

*Two identical climbers of equal strength. One of them has good fluid technique, whilst the other relies on their arms. The technician will out climb the thug hands down. Our arms will never be as strong as the rest of our bodies.*

This is a practical guide for rock climbers who want to climb harder. It includes exercises that can be carried out at your local climbing wall, crag, boulders or at home to improve all aspects of your climbing. The book is broken down into three parts:

Preparation – before you climb

Technique – moving up

Training – getting in shape

To begin we'll explore the basics of how we learn so that you get the most out of this book. Followed by ropework and safety considerations that every climber needs to be aware of before they start climbing, whether top roping, lead climbing or bouldering.

Next a series of movement techniques introduced through a progressive series of exercises that lead you from simple to more complex movements. Most of the exercises are intended for bottom roping or bouldering so you can drill the moves until they become second nature. The aim of these exercises is to help you climb safer, with more confidence and less effort than before. The technique section also covers both the tactical and mental techniques that you need for lead climbing.

Finally, the section on training starts with various ways to identify your weaknesses and target your training needs. With this in mind there are exercises and drills to improve aspects of strength and fitness which you can fit in around your climbing. The section on training young people will be of interest to any parent or coach – why an adult's training programme shouldn't be applied to a young person. The last chapter covers the basics of nutrition.

## LAZY CLIMBING

---

The underlying ethos is that of 'lazy climbing', through which it is possible to improve your grade through being and staying relaxed, as well as making the movement of climbing as efficient as possible. If you adopt a lazy style to your climbing you will force yourself to be more efficient.

If you have ever watched a truly great climber then the one thing that you will notice above all is the apparent lack of effort that they put into it. Much of the time they will appear extremely relaxed.

An experienced climber uses all of their skill not to be fitter than you or me but to climb more efficiently. They don't have to pull as hard because they are more in balance.

A great climber also draws upon a wealth of experience in the psychological warfare of lead climbing. By regularly stressing themselves, good climbers have developed a coping strategy to deal with those scary situations. This takes time to develop, but none the less you will become conditioned to becoming more comfortable.

You will become a lazy climber with good footwork, balanced body position, efficient weight transfer and a relaxed attitude. Broken down into their most basic elements these skills can be built up through a steady progression into more technical and dynamic movement.



# The Basics: Handholds & Body Position

As well as good foot work you also need to be able to hang on with your hands!

---

*You can often trick your brain into feeling more comfortable by relaxing your arms, as the realisation dawns that you aren't in as bad a position as you thought.*

The lazy climber knows that the hands and arms are the smallest and weakest muscle group used in climbing; it's vital to save as much energy as possible when we use them by using holds as effectively as we can.

Stay as relaxed as you can. The more relaxed in mind the more relaxed your grip. It is no coincidence that a scared climber is often described as being 'gripped'. As anxiety increases so does your grip on whatever you can hold on to. Often even though you are in a position that when relaxed your hands might just be holding you in balance, you will be hanging on like your life depended on it.

To overcome this we need to learn not only how to compose ourselves, but also to know what it feels like to be relaxed, so during any of these exercises rate your grip on a scale of 1 to 5.

- 1 Very light – finger tips just touching the holds
- 2 Light – holding a cup of tea
- 3 Medium – a firm hand shake
- 4 Hard – holding a heavy bag
- 5 Very hard – you are totally maxed out.



*Why do we overgrip?  
One theory is that as  
we are overcome by  
a growing anxiety,  
we compensate  
for our reduced  
cognitive ability by  
increasing the effort  
we put into a task.*

Try slowing your breathing down (a dose of adrenaline does exactly the opposite). By slowing everything down you are counteracting the natural fight or flight response your body has to stressful or fearful situations.

This is the start of the mental head game of climbing, and there are many theories as to how best to mentally prepare. This will be covered more fully in a later chapter.

**Handhold tips**

During all exercises relax your arms as much as possible.

Slow your breathing, in through the nose out through the mouth.

Make sure you have hold of the best part of the hold (the ‘sweet spot’). Search out the area around the hand hold, an inch to the left or the right the hold might be better.

Keep your arms as straight as possible (so as to hang on your skeletal structure, rather than straining your biceps and shoulders).

Try different foot and body positions, to move your centre of gravity.



**WARNING** – when climbing it is important to remove rings from fingers; failure to do so has lead to people effectively skinning their own fingers! If you look up ‘degloving injuries’ be warned, they are gruesome.

**CRIMPS**

A crimp is the most instinctive way to grab a handhold (if you have ever climbed over a brick wall for example). There are three different types of crimp, the full crimp, half crimp and open handed crimp, all of which enable us to cling onto the tiniest of edges.

Three different ways to hold an edge. (1) The open crimp. (2) The half crimp. (3) The full crimp.





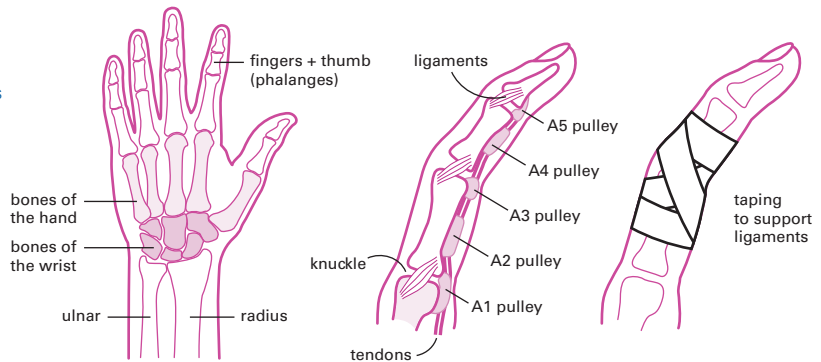
**Crimp exercise** – Climb using only full crimps, then half and then open. Are some holds easier to hang with one of the three crimps? Try and make a move off the smallest crimp you can when open handed, half crimped and full crimped. Is there a difference?

### Crimping tips

In the full crimp, you reinforce the fingers by locking your thumb over the top of the index finger.

Crimps are quite aggressive. It is easy to injure fingers, because our muscles grow stronger more quickly than the tendons, ligaments and pulleys in our fingers.

The bone, tendons, ligaments and pulleys of the hand and fingers can all be injured when climbing.



**FINGER INJURY AVOIDANCE** – The hands are prone to injury. We ask the smallest parts in our skeleton to support nearly all of our weight. At first our fingers are not conditioned to deal with these loads. After years of training the potential for injury is still high. The best way to avoid injury is to be aware of this and build up slowly to more 'fingery' boulder problems. To start with climb on fingery holds (a hold that only reaches the first joint, about 10mm) on vertical walls only, as this will limit the amount of force you can apply to the fingers. Over weeks, months and years slowly increase the angle of wall that you use with fingery holds. Listen to your body, a slight twinge or any acute pain is a precursor to injury, so rest your hands and fingers.

Under the age of eighteen bones are not yet fully grown. There is a record of permanent finger deformity among elite junior climbers (see p209).

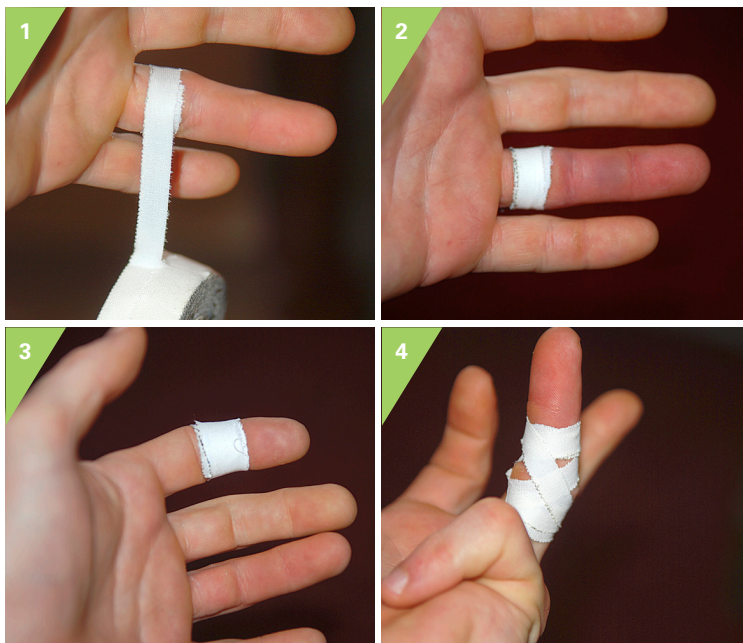
A good warm-up will help prevent injury but there is no way to avoid tremendous strain on the fingers. On particularly hard ascents you might strap your fingers up with zinc oxide tape to support the soft tissue. Taping up every time can be counter-productive as it doesn't allow your soft tissue to develop and strengthen as you climb.

(1) taping up to support A1/A2 pulleys.

(2) the tape has been over tightened, as it is restricting the blood supply.

(3) taping to support the A3/A4/A5 pulleys.

(4) using a thin piece of tape to make a cross support for the middle ligaments of the finger.



### Taping up tips

When taping up the fingers you need to insure that the tape is tight enough to give support but not too tight so that the blood flow is restricted.

## CUPPING

A great technique for holding onto small spikes, it often can be used as it uses slightly different muscles to the crimp or sloper, as it relies more on the little finger and ring finger.

Cupping the hold. Mould your hand to fit round the shape of the hold.



## SLOPERS

A sloper; hanging them is an art in itself. Note the low body position and straight arm.

For many a sloper is the worst type of hold. It's the equivalent of the foot 'smear', we have to use friction to enable us to hang on. On these, the most marginal of hand holds, hanging on often relies on us using not only hand strength but body position as well.

**Sloper exercises** – Find a sloper and experiment with different hand positions on the hold, whilst standing on the ground and try to find a 'sweet spot'.

Now try hanging onto the sloper and experiment with different body and foot positions, like having your shoulder above and below the sloper, and then to the right and left. What feels easier, above or below? Is being in line easier to hang than having your body to the side? Try the exercise for both hands, when holding on with the right hand where is the best body position? What about the left hand?

Now traverse and climb up and down on slopers and ask yourself the same questions.



### Sloper tips

Stay low.

Keep your arms straight.

When moving on slopers, try pivoting around your shoulders with your arms straight.

## PINCHES & SPRAGS

The opposable thumb is what sets us apart from most of the animal kingdom. It has given us amazing dexterity and arguably a foot up the evolutionary ladder, and for most it is an under used weapon in climbing.

It can be used to reinforce a crimp; by hooking over the index finger, change a hideous sloper into a satisfying pinch, and a lot more besides. The fact is that many people just pull down on holds, and don't really think of improving

their grip. Look at and feel the hold before you take the final grip of it and usually you will find a better grasp than a simple crimp, often by finding a way to pinch and bringing the thumb into play (especially useful indoors as bolt on holds often allow you to pinch them).



(1+2) Whilst crimping a small hold in a corner or crack will be fine, pushing against the wall with the thumb (a sprag) helps makes the hold a lot more secure. (3) Pinching a sloping hold.

**Thumb exercises** – Climb up on either crimps or slopers on an indoor wall, without using your thumb. Repeat the exercise using your thumbs to try and pinch the holds. Which approach feels more secure?

Climb a new problem but this time look at each hold before you go to grasp it, then try and loosely grip it in three different ways, before finally committing to grip it in the best orientation you can find.

**Spragging exercises** – Now try spragging a sidepull in a corner and moving up on the hold. Repeat the problem just crimping the hold. Which felt easier on the arms? Which required more lay backing to hold? Which felt more secure?

## JAMMING

Hand jamming up Brant Direct, Llanberis Pass.

Jamming is a dying art. Climbing walls encourage you to learn to use crimps and slopers but not how to jam; for most new climbers this is an outmoded skill. However, done well a jam is easier to hold than the biggest of jugs.

The methods for an effective jam are as extensive as the variety of cracks that it is possible to climb, from the tightest of finger cracks to the gnarliest of off-widths. Jamming involves wedging part or parts of your body into a crack or fissure. This can be painful and uncomfortable



to start with so you may wish to consider taping up your hands or fingers, your tolerance of the pain will develop. Typically the harder you apply your jam the less likely your hands or fingers are to slip. The slippage is more painful than the jam.

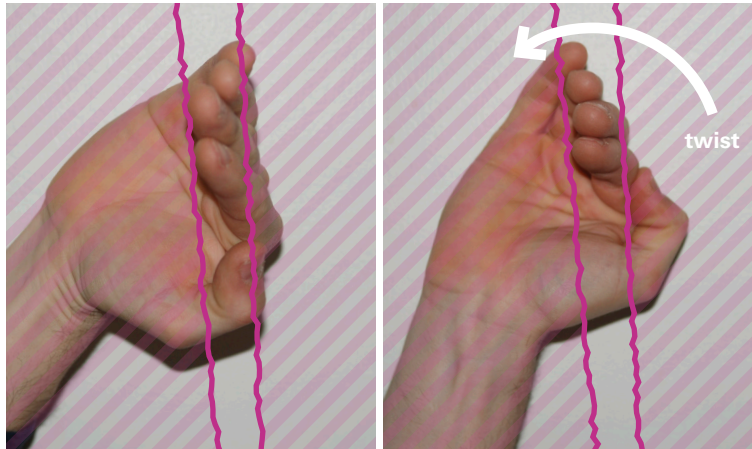
## Finger jamming

The thinnest of cracks can be jammed with the smallest tool you have – your fingers. The width that you can jam easily depends on the thickness of your fingers, thinner cracks are better suited to thinner fingers.

**Finger jamming exercises** – Find a crack you can just fit your fingers in, with the little finger at the top and thumb at the bottom. Then twist the hand down, this should lock the finger into the crack, most commonly onto one of the finger joints.

At first just pull down on the lock with increasing force then, when happy, step off the ground and finally make a move up on the jam. If it is a continuous crack can you make a series of jams up the crack?

Finger jamming relies on your fingers being wider in one orientation than the other. 1. Place them in the crack vertically. 2. Then twist them to lock.



### Finger jamming tips

Remember to try both hands.

Cracks are very rarely totally uniform, so try and find a natural tapering, the sort of wedge-shaped space in a crack that might take a wire for protection.

Different fingers and joints have different widths.

## **... and more in this chapter**

**Ring-locks**

---

**Off-hands**

---

**Hand-jams**

---

**Fist jams**

---

**Off-width jams**

---

**body + hold Orientation**

---

**Flagging**

---



# Index

## A

ABC (anchors, belay, climber) 17  
abrasion 43  
abseiling 49, 50, 52  
adolescent growth spurt 207  
ADP (adenosine diphosphate) 181  
aerobic respiration 181, 203, 204  
alloy gate karabiners 144  
anaerobic respiration 181  
angles 20, 22  
anorexia athletica 219  
anorexia nervosa 218  
anxiety 170, 171  
arêtes, resting 95  
arêtes, climbing 110  
arm-bar 86  
arousal 169, 171  
ATP (adenosine triphosphate) 181

## B

Bachar ladder 175, 189  
back and footing 94, 96  
back clipping 141  
balance 65, 89  
Balke test 204  
belay devices 37  
belaying 34  
Ben Moon 187  
BMC Participation Statement 8  
body mass index 213  
bolts 31, 32  
bottom rope 34  
bottom roping 16, 23  
bouldering 52, 117, 184  
bouldering mat 52  
buddy system 37  
bulimia nervosa 219

## C

campus board 125, 189  
cams 33, 147, 148  
carbohydrate supplements 218  
catastrophe effect 169  
centre of gravity 70, 120  
chalk bags 41  
chicken wing 86  
chimneys, resting 96  
chimneys, climbing 111, 112

climb when ready 47  
clip-drop training 174  
clipping quickdraws 139–143  
clip stick 152  
clove hitch 25, 27  
cod liver oil 217  
Colin Kirkus 109  
confidence 159  
contact finger strength 124, 198  
core strength 191, 192, 193  
corkscrew rock-overs 102–104  
cork traverse 74  
corners 105  
creatine 217  
cupping 78

## D

Dan Varian 188  
dead-mans handle 51, 52  
deadpoint 123  
dead rope 34, 36  
directional 19  
disco leg 194  
dogged 137  
double ropes 155–158  
drop knee 120  
drop knees 187  
dynamic moves 123  
dynos 125, 126

## E

eating disorders 218  
edge protection 23, 24  
edging, feet 68  
Egyptians 120, 187  
Elvis leg 194  
equalised 19–22  
equipment life 41–43  
extenders 149–151

## F

fall factor 48  
fast twitch muscle fibres 183  
fear of falling 174  
finger boards 188  
finger strength 186  
fist-jams 85  
flagging 89, 90  
flash 136

focus 172, 173  
foot-locks 121  
Frankenjura 127  
French free 137  
French prussic 51  
front lever 193  
FUNdamentals 208

## G

gate chatter 144  
gear loops 38  
gear placement 27  
general vs specific (training) 183  
glucosamine 217  
goal setting 178, 179  
gripper clipper 152  
ground up 136  
guidebooks 132

## H

hand-jams 83, 84  
hand swap 35  
harnesses 38  
headpoint 137  
heel hooking 119  
helmets 39  
hexes 30, 147  
hierarchy of runners 30  
hydration 216

## I

IDEAS principles 18  
imagery 160–162, 174  
independent 18  
Istvan Balyi, Dr 207

## J

jamming 80, 81  
John Bachar 175  
John 'Vermin' Sherman 117

## K

karabiners 144  
kinaesthesia 65, 121, 122  
knee-bars 121  
Kurt Albert 127

## L

lactic acid 91  
larks foot 52

layback, the 106, 107  
 lazy climbing 10, 91, 139, 169  
 lead climbing 44, 45, 47, 139, 154  
 learning curve 11  
 leg loops 38  
 lock off 35  
 lock-offs 190  
 long term development 209  
 lower-off 35  
 lunging 124, 197

## M

maillon 49  
 Malcolm Smith 187  
 mantelshelf, the 108–110  
 Mark Twight 168  
 matching 71  
 mental rehearsal 165  
 metabolism 181  
 micro wires 146  
 mind games 159  
 mind map 179  
 Moon board 187  
 multi-axled cams 147  
 multi-pitch 48  
 muscle memory 12

## N

nuts 145

## O

OBLA level 182, 199, 203  
 off belay 47  
 off-hands jams 82  
 off-width jams 85, 86  
 one-footed rest 97  
 on-sight 136  
 Oscar Eckenstein 117  
 over cammed 33  
 overhangs 115, 116  
 overlap, nuts 29  
 overloading (training) 183

## P

peak height velocity 207, 208  
 pegs 31  
 performance profiling 176  
 periodisation 184  
 persuasion 166  
 phosphate 181  
 phosphocreatine 181, 182  
 pike 193  
 pinches 79, 80  
 placing gear 153, 154

power 196  
 process vs outcome goals 179  
 proprioception 13, 65  
 pull up bars 189  
 pump, the 58, 91, 185, 199, 203

## Q

quickdraws 149, 150, 151, 158

## R

rack 143, 144  
 racks 152  
 reading routes 134–136  
 recruitment training 195, 196  
 redpoint 137  
 redpointing 127–129  
 relaxation 171, 172, 174  
 resting 91  
 retrievable abseil 50  
 rigging rope 23  
 ring-locks 82  
 ritual, climbing 173  
 rock-overs 99–101  
 rocks 145  
 rock shoes 40  
 Roland Pauligk 146  
 roofs 113, 114  
 rot punk 128  
 RPs 146  
 rule of opposites, the 102–104

## S

safe 47  
 School Room, the 187  
 screwgate karabiners 144  
 scripts, imagery 162, 164  
 seating a nut 29  
 second 44  
 self efficacy 159  
 self talk 167, 168, 174  
 sequencing 184  
 sewing machine leg 194  
 shake out 91  
 sidepull 87, 88  
 single vs double ropes 155  
 slack 46  
 slider nuts 146  
 slopers 79  
 slow twitch muscle fibres 182  
 SMART goals 178  
 smearing, feet 68, 79  
 solid 20  
 spikes 30, 31

spotting 53, 54  
 sprags 79, 80  
 stacked jams 86  
 static vs dynamic 123  
 strength 185  
 stretching 60–64  
 style of ascent 136, 137  
 swapping, feet 71, 72  
 systems training 187

## T

take 46  
 take in 35  
 taping up, fingers 78  
 tat 49  
 that's me 47  
 threads 30  
 Todd Skinner 43  
 toe hooking 119  
 top roping 16, 58  
 trees 32  
 tri-cams 30  
 twist-lock 189  
 typewriter 189

## U

undercut 87, 88

## V

visualisation 165, 166  
 VO2 max 181, 203, 204

## W

warm up 57–60  
 watch me 46  
 weakest link 176  
 wire gate karabiners 144  
 wires 145  
 Wolfgang Güllich 175, 187

## Y

Yosemite glove 84  
 yo-yo 136

## Z

zone, the 172



# HOW TO **CLIMB HARDER**

## A PRACTICAL MANUAL

Want to take your climbing to the next level? Here are the things you really need to know. From simple techniques (which can help erase bad habits) to training for the hardest climbs.

In each section there's a series of exercises from simple to more complex movements that you can practise at your local climbing wall, crag, boulders or at home to improve all aspects of your climbing.

Climb harder, more safely, with more confidence and less effort than before. Whatever your climbing goals, there's something here for everyone to focus on in order to become a better climber.

### **LOADS OF MOVEMENT TOP TIPS**

---

### **PROGRESSIVE EXERCISES**

---

### **REDUCING RISK**

---

### **PSYCHOLOGY FOR SUCCESS**

---

### **BECOMING STRONGER**

---

### **AVOIDING INJURY**

---

ISBN 978-1-906095-11-6



9 781906 109511 6

PESDA PRESS

