



Fingerboard Instructions and Training Tips

Congratulations on purchasing a Crusher Holds Fingerboard. This document will provide you with ideas and advice on how to use your fingerboard, and give an introduction to some finger training concepts and routines. Finger boarding can be highly addictive and can be a revelation to your climbing ability. With planning and attention to routines and detail, everyone can experience the benefits of their use.



Please read through it before you install your board and before you start training. All the information is given as a guide to help you gain the most out your board, but as with all sporting equipment, your own judgement and discretion must be used to ensure your own safety and to protect yourself from injury.



Where and how to position your board

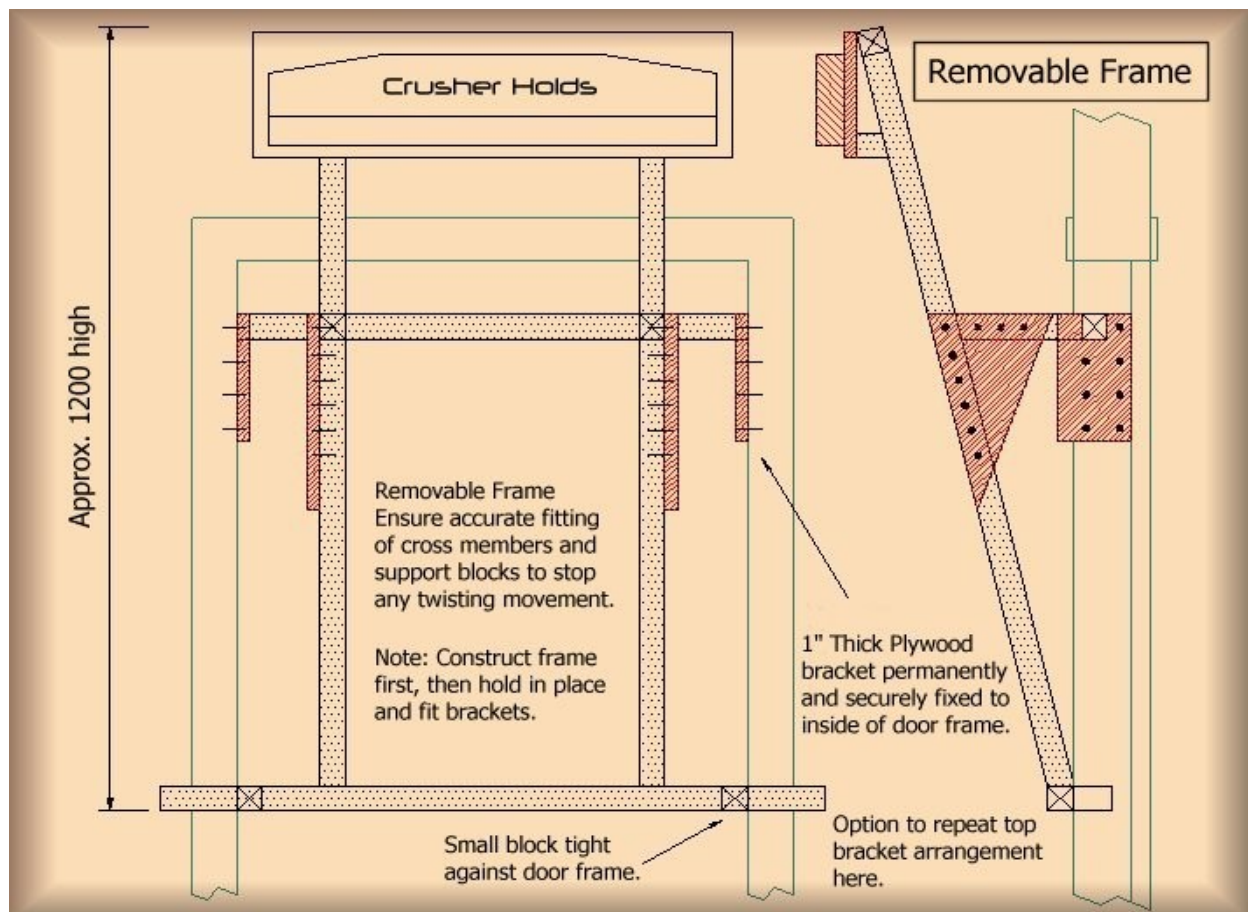
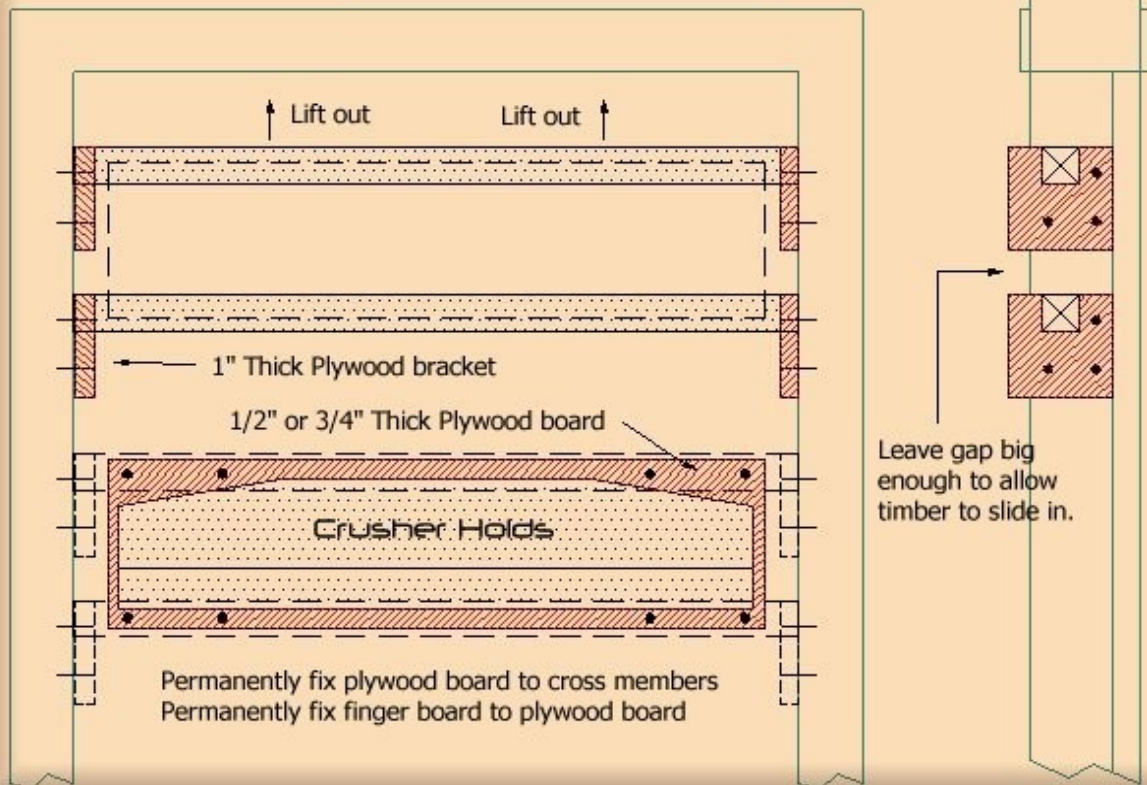
There are many ideas and variations for mounting a fingerboard from the obvious to the ingenious and a quick search online will reveal a wealth of information and forum discussions on how climbers have already done so.

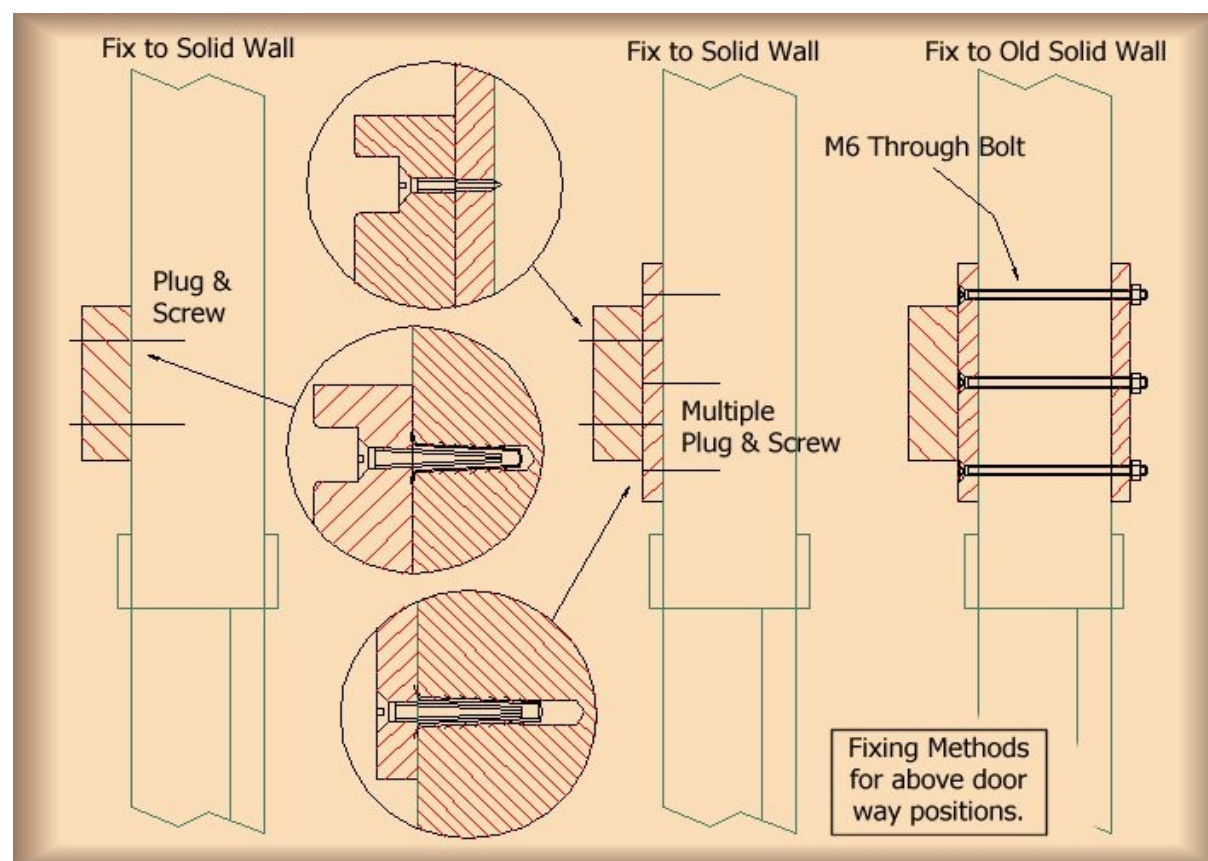
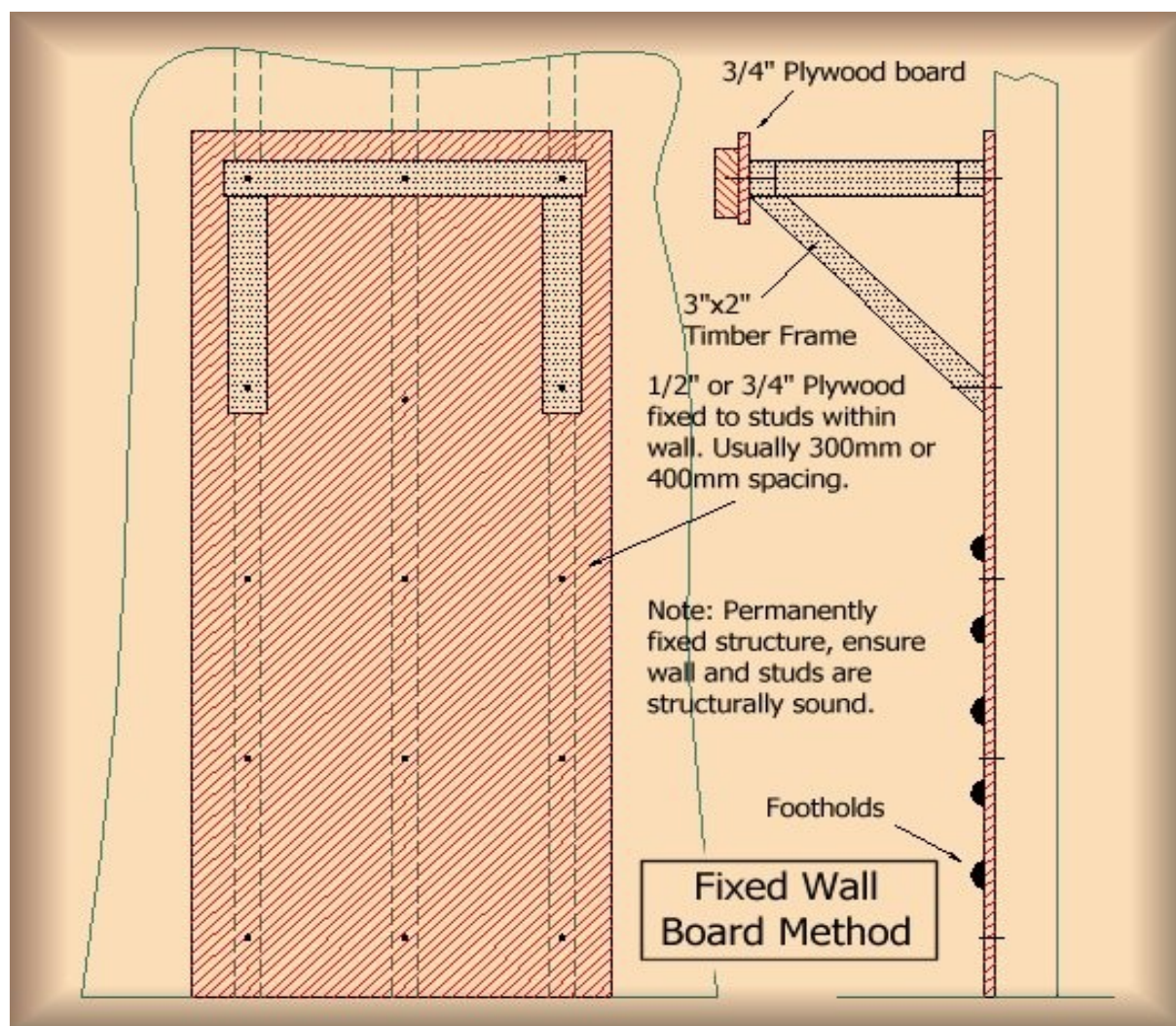
It is also worth considering the following before making your decision:



- Prolonged fingerboard training can test your tenacity and motivation, so give yourself a fighting chance. Find somewhere that is easily accessible and that fits in with daily life, somewhere near to other forms of entertainment such as a television or radio, or where family members spend time. Over the doorway of a lounge, a beam in the kitchen, or a jig in the hallway of your house. Try to avoid dark cellars, garages, sheds and areas where you might have to move items to set up space to use the board.
- The board should be in a position where you can load the holds straight from below without the body swinging.
- The board should be in a position where you can reach the holds with feet on the ground or on a stable surface with arms slightly bent.
- The board should be mounted horizontally with the face at 90 degrees to the floor.
- The surface or object, be it wall, wooden jig, hanging frame, pull up bar etc. that the board is to be fixed to, should be structural sound and capable of supporting your own weight plus the excess forces applied during exercising.
- Once fixed the board should not move during use. Any movement, even the slightest twisting of the board can cause jolting/shock loading of the ligaments/tendons of the fingers and arms, and possibly result in injury.

Removable Fingerboard Jig to fit inside door frame.





Fingerboard Training – A Dark Art?

The great advantage of owning a fingerboard is that your approach to using it can be as flexible or structured as you wish. Its use can be integrated into a pre existing training routine, you can design a training plan around it, it can be a large/small supplement to your general climbing, it can be a 'life saver' when regular climbing is not readily available and it can be planned around daily life so not only are your fingers kept happy but also the family.



It is advisable in 'ideal' circumstances to think of finger boarding as a supplement to normal climbing and to undertake short sessions (maybe 30 minutes) at regular intervals two or three times a week. This way all other aspects of your climbing wont be affected and you will be able to gauge after a month or so whether you are doing the right amount, too much or not enough training. This would be a more 'general' approach to training and finger boarding where you will make steady gains and decreasing the likelihood of injuries by being consistent and controlled. Those highly experienced (obsessed?) climbers with serious training regimes will be constantly riding the waves of training phases, fatigue build up, performance peaks and troughs and recovery phases. Here the injury tightrope is walked and only experience, knowledge and a good awareness of your own limits and recovery rates will stop the inevitable. Specialised books, research and papers are available on these types of advanced training.

Good indicators of overuse are swelling of the finger joints and sustained periods of soreness in the tendons and muscles of the forearms. Some degree of soreness and aching will obviously occur as does with all physical training, so try not to mistake these good aches indicative of well worked muscles/tendons with overuse.

Also you will find that tissue on your fingers might initially swell/thicken, giving a feeling of having fat fingers, this is also good, a short term response to training. The important observation is that within 24/48 hours fat fingers and the warm aching should have dissipated, if not then this a shore sign you are over doing it.

After fingerboard sessions you must allow yourself adequate time for recovery and healing of any micro tears to occur. How long is dependant on many factors, metabolism, immune system, diet, age, stress levels to name but a few. It is only yourself that can get to know the 'feeling', the feeling of the body in recovery and the refreshed feeling of the body recovered and ready for action.



An important fact to know and appreciate when it comes to the fingers and forearms responses to training, is the duration at which strength development occurs. The tendons and muscles of the fingers and forearms being smaller and complex in nature, have evolved for dexterity and not major weight loading. Therefore, the muscle building and tendon strengthening process takes considerably longer compared to the big muscle groups.

Thinking of finger strength gains in terms of months and years will help to maintain motivation and commitment to your training.

It is not uncommon to find initial muscular strength gains occurring quite quickly, in a matter of weeks. So it is also important to realise that relative to muscles the ligaments and tendons gain their strength at a slower delayed rate. This delay can be over months. This needs to be constantly addressed to avoid injury. When you notice the muscle strength has increased, be sure to ease back for a period and let the ligaments and tendons catch up.

So dedication to consistent controlled training over years is the key, there are no short cuts. If you take a look at the number of climbers in their twenties hanging about at climbing walls, you'll notice fingers full of tape. This all too common and sure sign of pushing to hard, too quick and paying for it with injuries. Think long, think steady, think dedicated and you wont go too far wrong.

For those new to finger boarding an ideal initial approach is to first find your 'weakest link' and set to target these, thus balancing your overall finger strength and build a solid platform to develop from. A common example found in the UK, is that your crimp strength far outweighs your open hand strength, or your mono strength on your middle finger is far greater than your index finger. Finding your strengths and weakness is quite a simple task and your fingerboard can be used to quickly reveals them.

Crusher Holds

Try the following task, using the table provided and jot down the results.

(It should go without saying that you are fully warmed up before hand and ready to pull with full power – see warm up section)

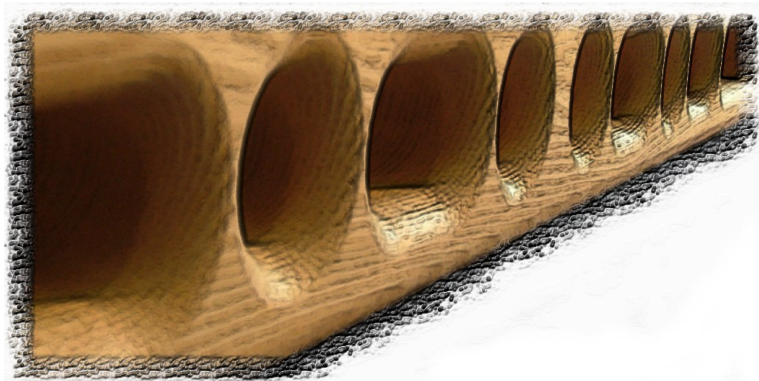
Using and standing on a set of standard weighing scales positioned directly under your board, hang from each digit individually using a mono pocket.



Note how much weight you remove from the scales and repeat the process a couple of times. You now have an average strength for each of your fingers of each hand.

Try performing the same task again on the 20mm deep rounded edge using the following:

- A full four finger crimp, a full four finger half crimp, a full four finger open hand hang.
- A three finger crimp, a three finger half crimp, a three finger open hand hang.
- A back three (middle, ring & little) finger crimp, a back three finger half crimp, a back three finger open hand hang.
- A front two (index & middle) crimp, half crimp and open hand
- A middle two (middle & ring) crimp, half crimp and open hand
- A back two (ring & little) crimp, half crimp and open hand.



Now the above may take a while and is actually a good work out on its own. It has provided you with a means of identifying your strong and weak fingers and finger combinations which can be targeted for training.

Hold on to this record and be sure to repeat it regularly (monthly?), therefore giving you a very precise gauge of your progress.



Left Hand	Weight				Right Hand	Weight			
	1	2	3	Average		1	2	3	Average
Mono's Open Hang					Mono's Open Hang				
Index					Index				
Middle					Middle				
Ring					Ring				
Little					Little				
Four Fingers					Four Fingers				
Full Crimp					Full Crimp				
Half Crimp					Half Crimp				
Open Hang					Open Hang				
Three Fingers (Index, Middle & Ring)					Three Fingers (Index, Middle & Ring)				
Full Crimp					Full Crimp				
Half Crimp					Half Crimp				
Open Hang					Open Hang				
Back Three Fingers (Mid, Ring & Little)					Back Three Fingers (Mid, Ring & Little)				
Full Crimp					Full Crimp				
Half Crimp					Half Crimp				
Open Hang					Open Hang				
Front Two Fingers (Index & Middle)					Front Two Fingers (Index & Middle)				
Full Crimp					Full Crimp				
Half Crimp					Half Crimp				
Open Hang					Open Hang				
Middle Two Fingers (Middle & Ring)					Middle Two Fingers (Middle & Ring)				
Full Crimp					Full Crimp				
Half Crimp					Half Crimp				
Open Hang					Open Hang				
Back Two Fingers (Ring & Little)					Back Two Fingers (Ring & Little)				
Half Crimp					Half Crimp				
Open Hang					Open Hang				

Fingerboard Training – Warm Ups

The aim of a warm up is to firstly slowly raise heart rate, increasing blood flow to muscles thus oxygenating them, increase temperature and initiate muscle energy systems for intense activity. Secondly to mobilise joints slowly, increasing synovial fluid movement, lubricating both cartilages and ligaments. At the end of a warm up you should feel comfortable and ready to pull on your fingers and arms with full power.



Warm ups can be incorporated into a daily routine before you use your board. Obvious you may think, but often over looked. Having a foam ball in your car to use on your drive home from work, a brisk walk to the shops for a pint of milk or a ten minute kick about with the kids can all help prepare you for a quick 30 minute board session. A warm up for a finger boarding session doesn't have to be as complex as for a normal climbing session. After an initial heart rate raiser you can target just your fingers, arms and back.

The following is an example of a warm up that should prepare you for a full session:

General Warm Up

1. Raise heart rate for 5 minutes - brisk walk, kick about, hoovering etc.
2. Whilst executing each of the below, clench a fist and then extend the fingers softly, alternating between each hand in turn.
3. Roll head left to right (x 5), then forward to back (x 5)
4. Roll shoulders arms by side (x 10)
5. Rotate upper body slowly and controlled left and right (x 10)
6. Bend forward as to touch toes sliding hands down legs (x 5)
7. Windmill arms slowly and alternately (x5)
8. Arch backwards slowly looking skyward (x 5)
9. Lean to left and right alternately (x 5)
10. Stop clenching fists (are you still doing it?) and stretch fingers and wrists back (as if holding you hand up to stop something) (x 5)
11. Relax fingers and bend wrist downward (x 5)
12. Now relax everything and shake arms, hands and shoulders for 10 secs
13. Perform 5 hangs using both hands, for 5 seconds with 5 seconds rest in between, from the biggest holds on the board you feel comfortable with.

Now repeat the general warm up again, this time increasing the intensity slightly. This should usually suffice for a general warm up but if you feel you require more then repeat as appropriate.

Take a minute or so break and then move onto the following.

Finger Specific Warm Up

A finger specific warm up aims to build the fingers up for maximal or near maximal contraction. You are aiming to achieve is a warm, fluid, supple and strong feeling, with a confident awareness of your tendons, ligaments and muscles. The speed at which this happens is generally dependant on age. Youthful, springy, energetic fingers or mature, steely and taught?



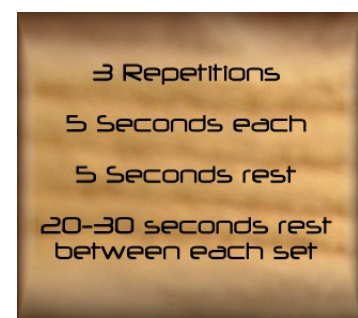
A common approach is to build the level of 'power' you use from about 50% to about 90% over a series of quick repetitions that last about 5 seconds each with 5 seconds rest between. This can be done quite crudely but adequately by standing on the floor and gradually taking more weight off on each repetition. If you struggle to gauge the weight your taking off, try using the scales again or try this...

First rep - with both feet down knees bent, second rep – one foot bent knee, third rep – straight hang no feet.

Obviously you will have to adjust and tweak to your own ability and strength, but try following this idea.

Here is an example of a series of hangs to carry out using the above technique... Take 20-30 seconds rest between each set. It will take about 5 minutes in total.

1. Hang from a full 4 finger edge with both hands.
2. Hang from a 3 finger edge with both hands.
3. Hang from a front 2 pocket with both hands.
4. Hang from a full 4 finger edge with both hands.
5. Hang from a middle 2 pocket with both hands.
6. Hang from a full 4 finger edge with both hands.
7. Hang from a back 2 pocket with both hands.
8. Hang from a full 4 finger edge with both hands.

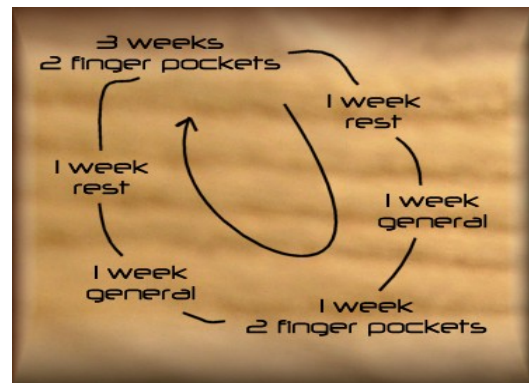


The above can be done with just an open handed hang. If your training crimping strength, just integrate a half crimp and a full crimp into the routine.

Fingerboard Training – Sessions & Cycles

As you may be aware or now understand there is no hard and fast rules to finger training. Absorbing advice and researching what has been tried and tested, is crucial to building up ideas of what will apply or be will advantageous to you. Not only are there many individual exercises and repetition variables but also 'periodisation' and training cycles to consider.

Taking the latter first, you can decide for example your two finger pocket strength is a weak link and needs training. Here you can concentrate solely on these for a periods of weeks and cycle them with periods of rest and with periods of returning to general or crimp strength.



Next you can plan long term training cycles over periods of months or years. So that your training goal comes in line with say limestone pocket pulling holiday or a summer attack on the peak district crimps. Note the slight volume increase just before the target...

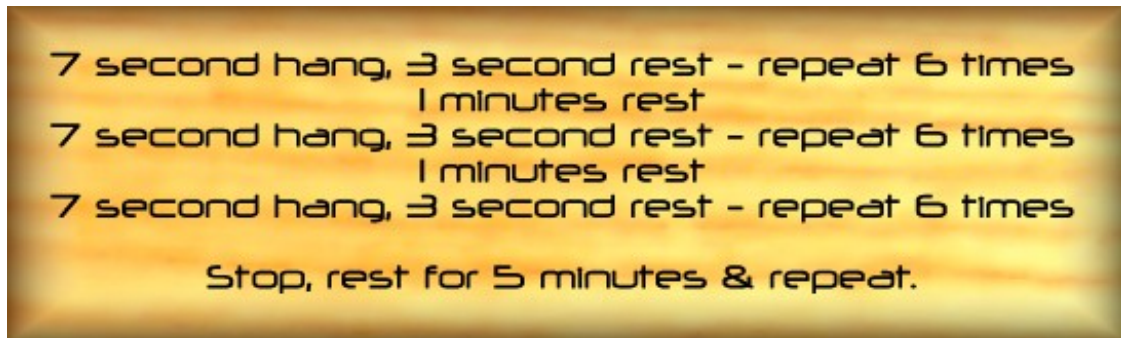


The above training cycles will last 6 months. You have a number of options worth trying if you find it fairly successful. Change the target hang, tweak the exercise lengths or tweak the rest periods.

As it is specific to finger boarding you will note that it follows a general cycle of 3 weeks on to 1 weeks rest. This is in general training terms, quite a high amount of rest. It is important again to reiterate that as finger boarding is so specific and highly intensive that these amounts of rest are required, to allow recovery and micro tear repair. If you are climbing and training on the rock as well then pay special attention to when you plan your rest and for how long you need.

Specific Set Arrangement Ideas

For building finger strength and power, current general thinking is based around '10 second' cycles where the following routine is used and hangs are executed at maximum contraction. The routine:



7 second hang, 3 second rest - repeat 6 times
1 minutes rest
7 second hang, 3 second rest - repeat 6 times
1 minutes rest
7 second hang, 3 second rest - repeat 6 times

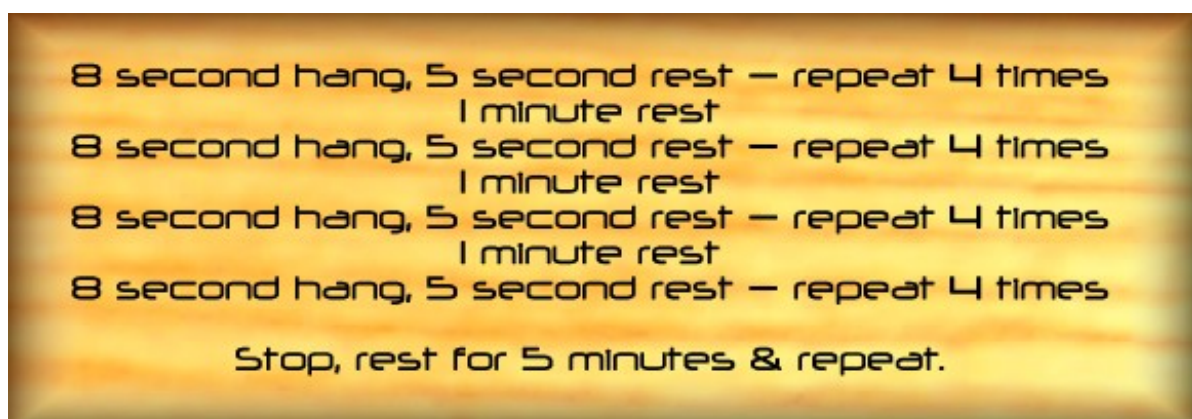
Stop, rest for 5 minutes & repeat.

The importance of these cycles is finding on the 5th or 6th repetition that you begin to fail and do not achieve the full hang. Therefore you'll need to adjust the load on your fingers to hit failure at the right time. This can be done by increasing/decreasing hold size, adding/removing weight (weight belt, ankle weights, harness, hanging from a bungee etc.), hanging single handed or hanging single handed with assistance.

It is also common to vary the above routine slightly, as each person will respond with different degrees of success. So pick your own, stick with it for a while, then mix it up and see if you feel its works any better or worse for you.

For strength training if you follow the basic rules; 12 seconds maximum hang time and overall rest time should be equal to or higher than the time spent on the board.

An alternate routine that has worked for me, again failing on the last hang:



8 second hang, 5 second rest - repeat 4 times
1 minute rest
8 second hang, 5 second rest - repeat 4 times
1 minute rest
8 second hang, 5 second rest - repeat 4 times
1 minute rest
8 second hang, 5 second rest - repeat 4 times

Stop, rest for 5 minutes & repeat.

Another set arrangement is the Pyramid. Here maximum effort is used again on each hang, but the length of hang increases throughout the set. This has a cumulative effect, seeming to 'tune' or 'warm' the fingers into the hang and appears to work well with two finger or mono hangs. Again you can tweak the durations and repetitions keeping in line with logic. A couple of routines:

6 second hang, 4 second rest
9 second hang, 4 second rest
12 second hang, 4 second rest
1 minute rest

Repeat 4 times

Stop, rest for 5 minutes & repeat

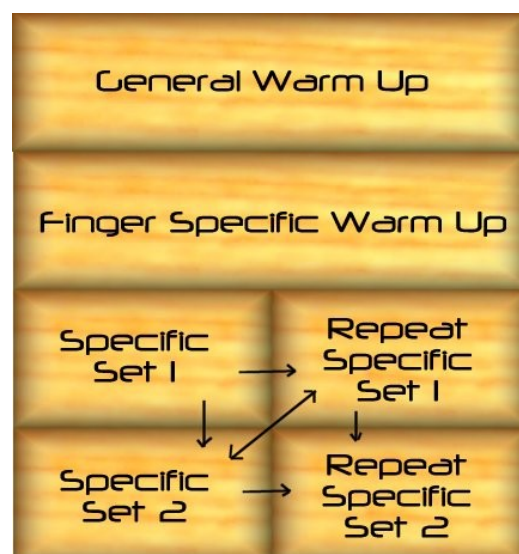
A complicated routine, but worth a try:

4 second hang, 2 second rest – repeat 6 times
30 seconds rest
6 second hang, 3 second rest – repeat 5 times
30 seconds rest
8 second hang, 4 second rest – repeat 4 times
30 seconds rest
10 second hang, 5 second rest – repeat 3 times

Stop, rest for 5 minutes & repeat

All the above set arrangements can be used to target one specific hang. With a simple session plan as shown right, you can add another hang into your routine.

So... good luck with your training and I hope your climbing benefits from this guide. Most of all have fun with your Crusher Fingerboard.





Mega Rail



Matrix



Crusher 4

Orb

