



GRIP

GENERAL FOREARM CONDITIONING

HANDSTAND FACTORY

BY EMMET LOUIS AND
MIKAEL KRISTIANSEN



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AUTHOR'S NOTE



This program came into being from the need for more comprehensive wrist preparation for artists, athletes and movers who like to stand on, or otherwise put weight into, their hands.

My research into the concepts here originated from my own needs. Around 2007, when I was in circus school, I had persistent tendonitis in one arm from overtraining. I tried all the wrist and forearm exercises common in circus and gymnastics. I then came across an offhand comment by a Canadian strength coach named Christian Thibaudeau. The comment went along the lines that one of the common causes of tendonitis in the forearm is not training all functions of the forearm. This led me down a rabbit hole, searching old strongman manuals for forearm training. After coming across sledgehammer training and leverage-based training and putting it to use for one month, my issues had resolved and never returned.

Consider this program a gift to you, a homage to old time strength training. While I feel coming across an elbow issue at some point in your handbalance training is basically unavoidable if you push for the higher levels, this program will provide an added layer of insurance and possibly antidote to the issue.

Yours in staring at the floor,

Emmet Louis and Mikael Kristiansen, March 2020



QUICKSTART GUIDE

1. **GET A GOOD OVERVIEW OF THE MATERIAL BY WATCHING THE VIDEOS AND SKIM READING THIS MANUAL.**
2. **READ THE FIRST HALF OF THIS MANUAL IN MORE DEPTH, HAVE A NOTEBOOK/JOURNAL TO TAKE NOTES, OR PRINT THIS MANUAL SO YOU CAN WRITE ON IT AND HIGHLIGHT SECTIONS YOU WANT TO COME BACK TO.**
3. **BEGIN THE FIRST PHASE OF THE TEMPLATE PROGRAM.**
4. **MONITOR THE INTENSITY OF YOUR TRAINING AND ADAPT THE WEIGHT/LEVER AS YOU GO.**
5. **REWATCH THE VIDEOS AS NEEDED AND REFER TO THE EXERCISE PAGES IN THIS MANUAL.**
6. **REASSESS AFTER COMPLETING THE FIRST PHASE, TAKE A 4 WEEK BREAK, AND THEN DECIDE WHETHER TO REPEAT THE FIRST PHASE OR PROGRESS TO THE SECOND PHASE.**
7. **CYCLE THIS PROGRAM IN AND OUT OF YOUR TRAINING AS NEEDED.**

THEORY

HOW TO USE THIS PROGRAM

This program is designed to work as supplementary physical preparation for someone working on handbalancing as a skill. It can also benefit any person engaging in a practice where the hands are supporting and controlling weight.

The idea behind this program is that, while the time spent on the hands is enough stimulus to develop the specific strength and physical adaptation needed for handbalancing, we risk overloading and exceeding capacity if we add a conditioning program that uses the same planes as the main work.

Enter our wrist and forearm conditioning program. With the above in mind, the aim of this program is to train all the functions of the forearm, particularly the ones that are less stimulated by the specific training in the handstand itself. Additionally, it aims to strengthen and possibly hypertrophy (make bigger) the muscles of the forearm.

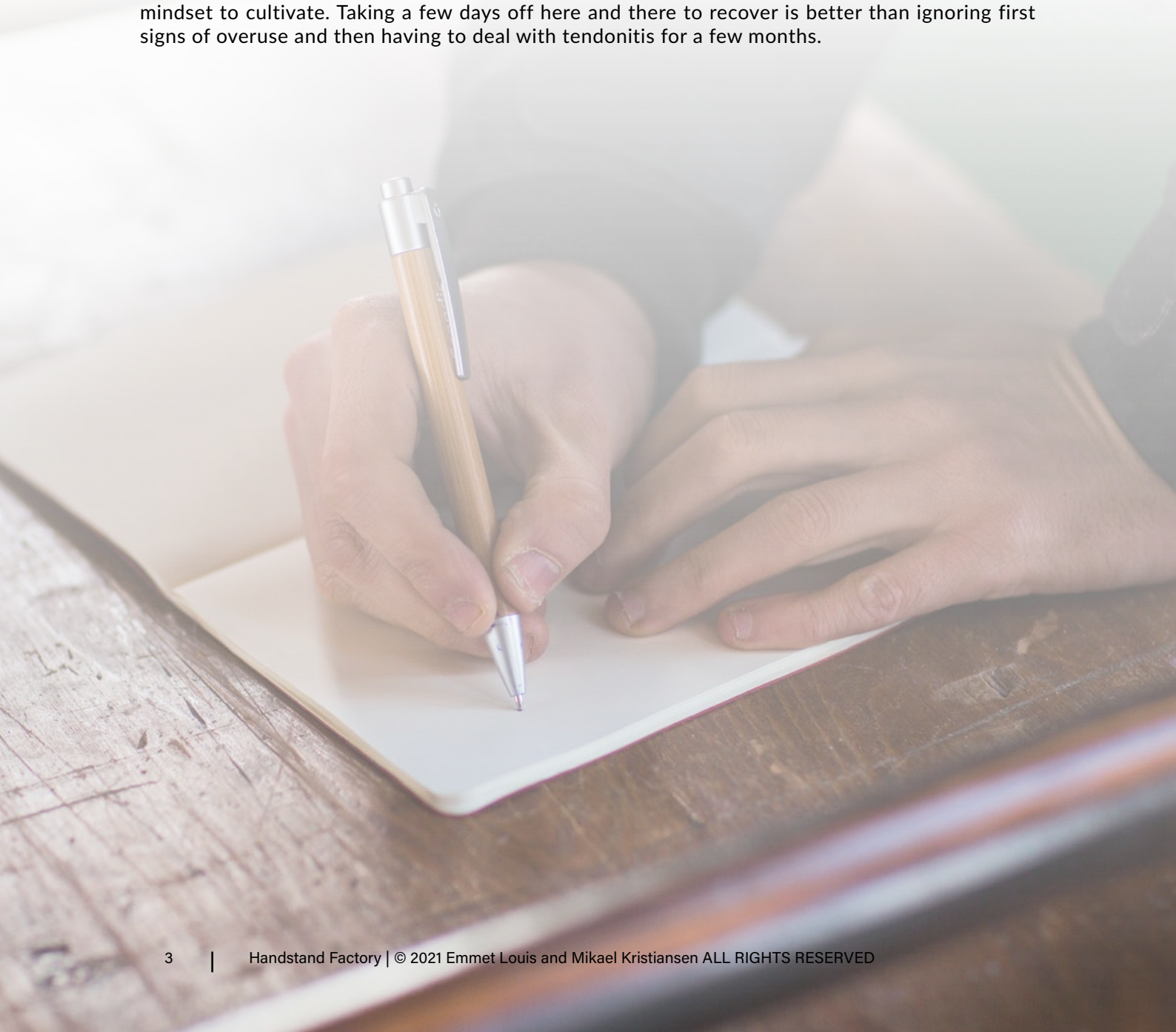
The Grip program can be seen as a specialisation program: we do not constantly run it alongside our regular training, but rather phase it in and out over a few months, and then keep it in the toolbox to top up our forearm resilience when needed.

While the videos of the Grip program contain everything you need in order to understand and do the exercises, we have also written a summary and a bit of context for each video, together with the most important key points and cues. They are compiled in the Practice section of this manual so that you will not have to watch the videos again and again, but can just refer to this manual as you follow the program.

The program templates for Grip can be found at the end of this manual. They consist of two phases, each done for 4 weeks. We suggest taking 4 weeks off between the first and second phase and then taking a break of 2-3 months before repeating. If you want, you can keep cycling them month on, month off for the whole time, but I find that doing this work 1-2 times a year to be sufficient for most.

INTELLIGENT PRACTICE

When learning to handstand, or even trying to push your handbalancing practice to the next level, it is common to experience some discomfort in the wrists, forearms and elbows. Learning early on to recognise the difference between DOMS (delayed onset muscle soreness) and overuse is an important skill. Giving yourself permission to skip a day of training here and there is a valuable mindset to cultivate. Taking a few days off here and there to recover is better than ignoring first signs of overuse and then having to deal with tendonitis for a few months.



WEIGHT PLACEMENT IN THE HANDS

One of the main stressors in handbalance is having the weight off-centered towards the fingers, forcing the fingers to grip the floor. The ideal placement will allow the weight to be more vertical to the alignment, allowing the fingers to relax between corrections. If the weight is off-centered, the fingers and forearm flexors are under constant tension and will likely exceed their capacity to adapt and recover between sessions.

The ideal placement of the weight in any handstand is approximately in the middle of the hand (as shown in the picture below). We cannot narrow this down any further because the weight will always be shifting regardless of how good we are at balancing. The more precise we become, the less we need to go all the way to the edge of the fingertips and the heel of the palm. In relation to wrist health, it is usually moving too far over the fingers that causes acute problems. As you get better at handstands and can keep the weight further back in the palm, on average, you will be at less risk of this happening. The same thing goes for long-term overuse injuries.



The caveat here is that a beginner at any handstand skill (novice handbalancers as well as advanced balancers learning a new set of skills) can not be expected to concentrate on this one aspect efficiently while also understanding everything else that is going on. Someone just starting out with a two arm handstand has more than enough to think about just being upside down. A beginner will often even feel more control upside down by letting the weight sit slightly closer towards the fingers. The same applies to the press to handstand and one arm handstand as well. As we press to handstand, we need to lean forwards somewhat, and a beginner at pressing will likely need to lean more than someone who is already proficient at it. Your first one arm handstands will likely be even less efficiently balanced in the hand as you desperately try to keep yourself from falling.

The takeaway here is that learning handstands will put you into a risk zone regarding your wrists, and injuries are likely to happen at some point or other, just as with any complex physical activity. To reduce the risk, the best thing you can do is learn about your capacity and not overstep it. At the same time, as you get more comfortable, you can begin to actually observe where in the hand your weight rests and work on being less finger heavy as you balance.



MONITORING YOUR CAPACITY

In handbalancing, people tend to experience wrist and forearm issues in three main situations:

1

EXCEEDING YOUR CAPACITY WHEN LEARNING TO FREE-BALANCE THE HANDSTAND.

When you start moving off the wall and begin working on free balancing it is easy to get caught up in the excitement of being able to hold a handstand, and at this stage it can be tempting to do too much. The situation becomes particularly risky if you have a tendency to keep pressure in the fingertips at all times instead of pulsing on and off to save the balance. This will get better as you refine your efficiency and weight placement over time, but in the transition phase it is easy to overstep your capacity.

Even if the placement is good, there can be a tendency to spend too much time on the hands in the early stages. We recommend spending some time developing an idea of your capacity upside down and using that to guide the length and intensity of your training sessions. A simple way of establishing your capacity is to do five sets of chest to wall handstands. Film yourself straight on (with your back facing the camera) and run a timer to pinpoint the moment when you first lose the shoulder position, either the elevation, flexion or both. This won't be the full time of the hold: for example, the breakdown might occur 40 seconds into a 60-second hold, even if you hold the full 60 seconds by re-establishing the shoulder position.

This test will help calculate a rough guideline of your capacity upside down. In our example, we can calculate that the 40 seconds of good position for 5 sets would give us 200 seconds of handstand time to play with in our freebalance training. So this might be split between kick ups and balances for instance, aiming not to exceed those 200 seconds on our hands.



2

EXCEEDING YOUR CAPACITY WHEN LEARNING TO PRESS TO HANDSTAND.

The next stage in handbalance training where people tend to feel a strain on the wrists and forearms is when they begin achieving their first presses to handstand from standing. Generally, when the press still requires maximum effort, it will be executed with sloppy technique and tends to have too much forward pressure, placing a lot of weight in the fingertips.

Paying attention to having the weight and pressure strongly aligned over the placement spot and pushing through this zone will help a lot. This applies to all types of pressing to handstand, either straddle or pike pressing from standing (high press) or doing a stalder or L-Sit stalder press to handstand (low press).

We've also noticed that, when experiencing the first success with pressing to handstand, there can be a strong temptation to just do too many repetitions of it, again exceeding capacity. While you might finally have developed the strength to execute the press to handstand, the tendons and ligaments have to adapt too, and this takes time. To mitigate the risk, first spend due time on the lead-up exercises and flexibility components; when you get to the press itself, slowly increase the reps.



3

EXCEEDING YOUR CAPACITY ON ONE ARM HANDSTANDS.

Once you get to training the one arm handstand, you will, or should have, a developed sense of balance in the handstand as well as a strong control of the shoulder position. When learning to balance on one arm, there will be a period of building up the strength in the one arm position as well as training the basic planes of rebalancing on one arm: lateral, under-and-over balance and rotation. However, once you get to the point of lifting the hand off the ground, you must learn to control turbulent swings in balance in every direction, not simply forwards and backwards as in the two arm handstand. This is what Mikael accurately terms the tornado or maelstrom of one arm balancing. If your weight is not placed efficiently in your hands, the bigger swings can cause your wrists and fingers to experience more strain than they have previously.

As you get more advanced and increase your training volume, it's advisable to have an alternating schedule: one day working on blocks / canes and one day working on the floor. This will change the hand placement, reducing the likelihood of developing over-use injuries from always using the same surface.

These would be the three main times when most wrist and forearm issues occur. Nevertheless, they can happen at any time from doing too much and exceeding your capacity to recover.

PROGRAMMING FOREARM CONDITIONING

CONDITIONING VS. ADAPTATION IN SKILL TRAINING

Seeing as we have limited physical capacity to spend on skill training, we want to make sure not to use too much of it on conditioning.

There is a distinct difference between warming up for a skill session, specific physical preparation for the skill, and general physical preparation.

Warming up is the act of getting ready for your training on the day. It is a broad topic, so we will only speak on the wrists here. We want the wrists prepared to receive the weight of the body. What this requires will vary day to day and person to person. Things to include would be basic joint rotations and stretches in various directions, either held for short times 10-30s or moving into and out of them. Then gradually load the weight into the wrist.

Conditioning the wrists and forearms for handbalance is best done while learning the handstand as the movement and strength demands of handbalance are quite specific. This will build the specific physical preparation required to balance and hold the handstand. So the specific conditioning will be learnt and trained using the various rebalance and placement drills of your handbalancing program.

General physical preparation is aimed at training the general functions of the wrists and forearm motions so all directions receive a stimulus and not just the specific ones for handbalancing. This program falls under this category.



INTENSITY OF THE GRIP TRAINING (WEIGHT/LEVER)

As you will see below, the program is easy to follow along. However, how much weight and leverage to use is something you will have to test for yourself and your current abilities. When selecting weights and leverages to use in this program, you want to aim to be able to complete the set for the required repetitions with 1-2 reps in reserve. We want a casual workout pace here as this is supplementary training and not the main course, so to speak.



Over the course of this program, the aim will be to increase the weight as you are able to do the full sets at the prescribed reps.



TECHNICAL TERMS

The videos of this program are named after the different functions of the forearm. For reference, you can see the different terms explained in Figures 1, 2 and 3 below.



PRACTICE

INTRODUCTION TO GENERAL FOREARM CONDITIONING



Press the Play button on the exercise images below to access the video library.
You must be logged in to your member account to access the videos.

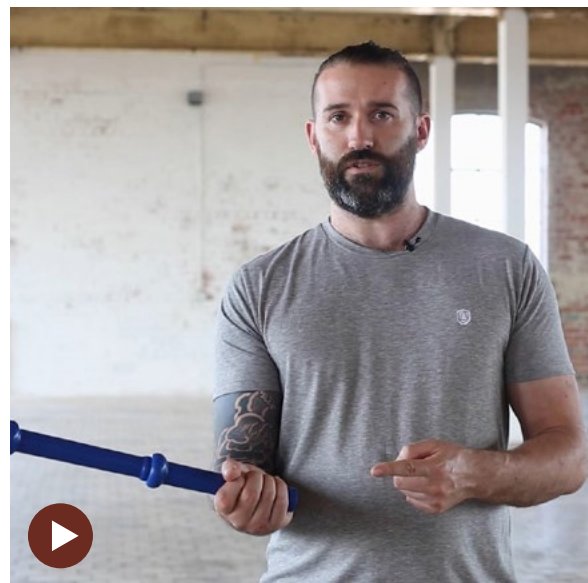


WRIST PRONATIONS AND SUPINATIONS

Pronation and supination of the forearm happen at a micro level in handbalancing, but the pronators and supinators are generally under trained. In some cases, they can even be quite tight. The pronators and supinators also form an important couplet that helps stabilize the elbow when it is in a locked position.

The movements in this video aim to train the pronators and the supinators of the forearm. We do this with two elbow positions as shown in the video: a bent arm and a straighter arm.

The main key in this exercise is to allow the stick or weight to pull you into a light stretch on each movement. Regrip the stick or implement, then lift. Be intentional and really feel the muscles firing up.



KEYPOINTS

- Relax and re-establish the grip on each repetition.
- Wind up the arm until you feel a light stretch.

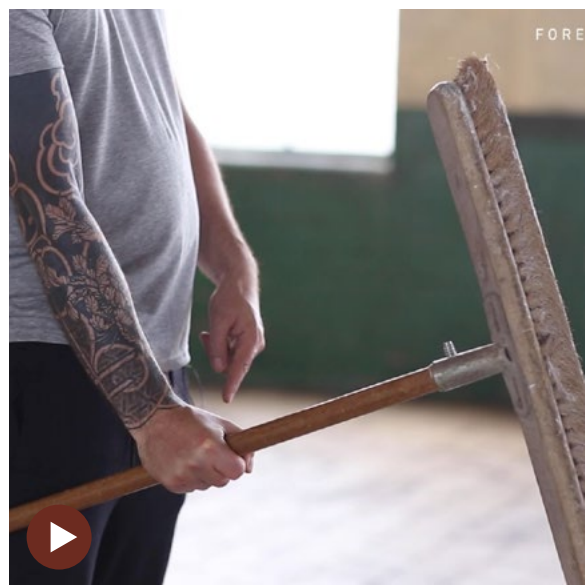


RADIAL AND ULNAR FLEXION

In these drills you want to take your time to find the angle of the arm relative to the body that allows for the best stretch in the extended positions.

Pay attention to the muscles working in the forearm and mentally make them contract harder on each rep.

While you rarely use these exact motions in a floor handstand, you will most certainly encounter them if you use parallettes or dip bars for handstands, in which case these motions will be one of the main controls of balance.



KEYPOINTS

- Aim to feel a stretch along the section of the arm aligned with the stick.
- Relax and reestablish the grip on each repetition.
- In the pause, contract both the grip and the forearms as hard as possible.



WRIST FLEXIONS AND EXTENSIONS

If we look at most common wrist preparation programs and warm-ups, you can see that they often seem to be missing the neutral-to-fully extended and neutral-to-fully flexed components. While the fully flexed position gets trained with pulling exercises such as false grip chin-ups or the full muscle-ups, the neutral-to-fully extended seems widely neglected.

These exercises have been the mainstay of those craving blacksmith-like forearms for generations, and while they may seem basic, they are very effective. You might not want blacksmith-like forearms (for shame!), but spending some time working on these exercises will help to condition your forearms for the rigors of handbalance.



KEYPOINTS

- Contract hard at the top of both motions and try to lift higher.
- Using fat grips on the dumbbells is also an option.

GRIP PROGRAM TEMPLATES

PROGRAM TEMPLATES

THE PROGRAM:

The program consists of two phases. Each phase is done for 4 weeks, after which I suggest taking 4 weeks off between the first and second phase and then taking a break of 2-3 months before repeating. If you want, you can keep cycling them month on, month off for the whole time, but I find that doing this work 1-2 times a year to be sufficient for most.

PROGRESSION:

We are using a linear progression model in this program. This means that your aim is to add 1-2 repetitions per set to each exercise per repeat of the program (so in each session). Once you can achieve all the sets and reps for an exercise, you increase the weight or increase the leverage of the exercise.

An example would be if the exercise calls for 3 sets of 12-15 repetitions, you would aim to select a weight that you could lift 14 times in the first set. Then it might drop to 12 and 12 in the next two sets. The next time you do the program you will aim to do 15, 14, 13, reps until you do a work out with all sets consisting of 15 repetitions. Then you will increase the resistance (weight or lever) so the first set is harder and repeat.

FREQUENCY:

This program is best trained twice a week, leaving a three to four day gap between sessions. It is best done after training and on the same day as your handbalance training.



TEMPO:

The tempo of an exercise is the speed at which one repetition is performed. Each rep has 4 phases:

Eccentric:

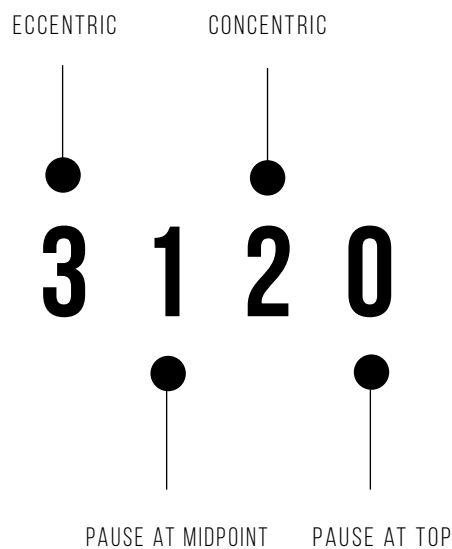
lowering phase of the exercise, where the affected muscles are lengthened.

Pause at the midpoint/bottom of the rep.

Concentric:

the lifting phase of the rep where the affected muscles are shortened.

Pause at the top.



The above graphic is how tempo is notated. One repetition at this tempo would consist of a 3-second eccentric with a 1-second pause at the midpoint, followed by a 2-second concentric and no pause at the top before starting the next rep.



PHASES

PHASE ONE

Order	Exercise	Sets	Reps	Tempo	Rest	Pages
A1	Bent arm supination	3	12-15	2110	60s	13
A2	Bent arm pronation	3	12-15	2110	60s	13
B1	Ulnar Flexion	3	12-15	2111	60s	14
B2	Radial Flexion	3	12-15	2111	60s	14
C1	Wrist Extension	3	12-15	1212	60s	15
C2	Wrist Flexion	3	12-15	1212	60s	15

PHASE TWO

Order	Exercise	Sets	Reps	Tempo	Rest	Pages
A1	Straight Arm Supination	3	8-10	2110	60s	13
A2	Straight Arm Pronation	3	8-10	2110	60s	13
B1	Ulnar Flexion	3	8-10	2210	60s	14
B2	Radial Flexion	3	8-10	2210	60s	14
C1	Wrist Extension	3	8-10	2012	60s	15
C2	Wrist Flexion	3	8-10	2012	60s	15



From all of us at Handstand Factory, we hope the Grip program will serve you well for years to come, and aid you in your handbalancing practice. If you've enjoyed this program, you might also like our other programs for learning the art of handbalancing!



From unlocking your first handstand, feats of strength like the handstand press, to advanced handbalancing like the one-arm, follow proven training routines that build the strength, flexibility and coordination for handbalancing.

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THE HANDSTANDCAST

Handstand Factory proudly presents: **The Handstandcast**. Emmet Louis and Mikael Kristiansen talk all things handstands. They speak about why they teach handbalancing, the way they do, the fact that there are loads of ways to do things, and explore all kinds of corners of the handbalancing universe.

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GRIP

HANDSTAND FACTORY

BY EMMET LOUIS & MIKAEL KRISTIANSEN

MODELS: EMMET LOUIS

EDITED BY: ELISE MISSALL AND ISAAC LUCKSTED

COPY EDITING: JAKE MACPHAIL

GRAPHICS & DESIGN: AUDREY WILLIAMSON AND SOPHIE MISSALL

VIDEOGRAPHY: A&R BELFAST

PHOTOGRAPHY: A&R BELFAST AND SEVE LIGHTDRAWING

APPAREL: ARDOUR

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