5 DRILLS BUILD STRENGTH & ENDURANCE WHILE CLIMBING

77 Drills to Help You Climb Better

Strength & Endurance Drill Sample

Welcome to the Strength & Endurance Drills sample from 77 Drills to Help You Climb Better. If you enjoy these drills, consider purchasing the full book, now available at 77climbingdrills.com

Drills can help you develop strength, technique and endurance. However, this sample is specific for strength and endurance. These drills focus on developing the raw power and stamina you need for extended climbs and challenging routes.

In climbing, strength isn't just about bulging biceps; it's about functional fitness that helps you overcome obstacles and maintain performance over the long haul. Similarly, endurance is not just about lasting longer but climbing more efficiently.

This section features drills to build your core strength, improve your grip, and help you generate explosive power when needed.

Whether you're tackling a steep boulder problem or preparing for a multi-pitch adventure, these exercises are designed to push your limits and transform you into a more resilient climber.

Remember, the key to improvement is a consistent, mindful practice. Always be aware of how you feel during the drill; if you notice any signs of fatigue or discomfort that could lead to injury, it's important to rest.

Start Here

Why We Need Drills

Incorporating drills into our climbing training sessions can offer numerous benefits that lead to improved performance and skills for climbers.

Targeted Skill Development

Drills allow us to focus on specific techniques and movements that we may not practice otherwise. Whether it's footwork, strength, or body positioning, drills can help fine-tune these elements.

Consistency and Muscle Memory

Repetition through drills helps in developing muscle memory. The more consistently we perform a particular move, the easier it becomes to execute it under more challenging circumstances.

Warm-Up and Injury Prevention

Using drills as a part of our warm-up routine can prepare our bodies for more strenuous climbing, thereby reducing the risk of injury.

Increased Strength and Endurance

Drills often isolate certain muscle groups or actions, allowing us to build strength and endurance in a focused manner.

Real-World Application

Practicing drills can improve our real-world climbing performance, enabling us to tackle more difficult routes and problems.

Mental Preparation

Drills can also serve as mental exercises, which can help us to develop better focus, and problem-solving skills, and manage fear or fatigue.

Feedback and Improvement

Drills provide an opportunity for immediate feedback, either through self-assessment or coaching. This can help us understand where we need improvement and work on it.

Confidence Boost

Mastering drills can provide a confidence boost, especially for moves or techniques that may have seemed daunting initially.

By incorporating drills into every training session, we can achieve a more balanced and effective growth in our abilities, making us better equipped to face climbing challenges.

Want to Make it Harder?

- **Add More Repetitions**: Increase the number of times you complete the drill.
- **Decrease Rest Time**: Shorten the rest periods between drills or routes to increase the endurance challenge.
- **Include Overhangs or Technical Routes**: Opt for routes with more technical moves or overhangs to make each climb more challenging.
- **Combine With Other Drills:** Most of the drills can be combined with other drills to increase the mental and physical challenge.

Want to Track Progress?

- **Timing:** Record how long it takes to complete the full drill, including rest times. A decreasing overall time while maintaining or increasing the difficulty of the routes is a good indicator of improvement.
- **Technique Evaluation**: Record your sessions to analyze your form and movement. Watch for improvements in efficiency and control.
- **Rate of Perceived Exertion**: Track how difficult each session feels on a scale of 1-10. As you progress, the same routes should feel easier.
- **Route Difficulty**: As you get more comfortable, you should be able to complete the drills with increasingly difficult routes. Keep a log of the grades you've successfully climbed in this drill over time.

Pro Tip: It's more important to complete the drill than it is to complete the route.

Please remember that you may not always complete the route. When climbers are first introduced to drills, it is common for them to abandon the prescribed movement of the drill in favor of completing the route.

However, to get the most out of a drill, go as far as possible while maintaining the prescribed movement and allow yourself to fall.

It is not a failure to fall but it is if you give up.

Strength and Endurance Drills

Peter Pans

The "Peter Pans" drill is specially designed to work on your dynamic footwork, particularly on overhanging routes. By forcing you to cut your feet off the wall and then place them back with precision, this drill targets your control, balance, and strength, making it a well-rounded addition to your climbing regimen.

Challenge Rating: Medium **Equipment Needed:** None

Identifying Routes

- Locate 3-5 climbing routes on a slight overhang.
- Make sure these routes are 1-2 grades below your current skill level.

Instructions

1. **Start the Climb**: Begin climbing one of the selected overhanging routes.
2. **Cut Your Feet**: Every time you need to move your feet to a new hold, first cut both feet off the wall.
3. **Re-Place Your Feet**: After cutting your feet, place them back on the wall on the next set of footholds.
4. **Complete the Drill**: You will have completed the drill when you finish the route following these specific footwork instructions.

Notes and Tips

- If you're looking for a greater challenge, you can combine this drill with the "Quiet Feet" drill. This will require you to place your feet back on the wall both quietly and precisely after cutting them off.
- The drill is designed to work on your dynamic footwork while also improving your core strength and overall control on overhanging routes.
- As you get more comfortable with this exercise, feel free to increase the difficulty by choosing more challenging routes or by combining it with other drills.
- Pay close attention to your body and take breaks if needed, especially since this drill can be physically demanding.

The "Peter Pans" drill offers an excellent opportunity to advance your footwork skills, particularly in challenging overhanging scenarios. By incorporating this drill into your training, you can work on multiple aspects of your climbing technique and strength.

Lock-Off Moves

The "Lock-Off Moves" drill is designed to build your arm strength and control, focusing particularly on your ability to lock off with each move you make. This form of targeted training not only enhances your strength but also your precision and stability during climbs.

Challenge Rating: Medium **Equipment Needed:** None

Identifying Routes

- Choose 2-3 routes 1-2 grades below your current skill level.

Instructions

1. **Start the Climb**: Begin climbing one of the selected routes.
2. **Lock-Off Technique**: As you make each hand move, end the move by locking off on that arm. This means you'll hold your arm in a bent position as if you're doing a partial pull-up.
3. **Complete the Route**: Work your way to the top, consistently applying the lock-off technique with each hand move.

Notes and Tips

- You can maintain the lock-off position while you move to the next hold, or you can lower your body back down to straight arms, depending on your preference.
- Focusing on locking off will increase the intensity of the climb. Make sure to maintain good form to avoid strain or injury.
- If you find this drill challenging, take it slowly and consider integrating it into your regular climbing sessions gradually.
- You can use your legs to push yourself into the lock-off move but consider limiting your leg engagement, if you can.

By incorporating "Lock-Off Moves" into your climbing regimen, you'll develop stronger arms and greater control, both of which are essential for tackling more complex routes.

Max Routes

The “Max Routes” drill is your go-to for a comprehensive climbing session, testing your abilities across a range of difficulties. You'll climb a total of 20 routes, spanning from just below your maximum ability to significantly easier climbs. This structure provides a good balance of pushing your limits and building endurance.

Challenge Rating: Medium **Equipment Needed:** Timer (Optional)

Identifying Routes

- 5 routes that are 1 grade below your current skill level.
- 5 routes that are 2 grades below your skill level.
- 5 routes that are 3 grades below your skill level.
- 5 routes that are 4 grades below your skill level.

Instructions

1. **Starting Phase**: Complete with the 5 hardest routes that are 1 grade below your skill level.
2. **Transition**: Take a maximum of a 5-minute break.
3. **2nd Phase**: Move to the 5 routes that are 2 grades below your skill level.
4. **Transition**: Again, take a maximum of a 5-minute break.
5. **3rd Phase**: Proceed with the next 5 routes that are 3 grades below your skill level.
6. **Transition**: Take another 5-minute break.
7. **4th Phase**: Finish with the 5 easiest routes that are 4 grades below your skill level.

Notes

- Ensure that you're adequately warmed up before starting with the harder routes, especially if you choose to start with them.
- Minimize the rest time between climbs in each phase to increase endurance building.
- An alternative to this drill is to start with the easiest routes and work your way up to the harder ones. This reversal could offer a different type of challenge.

By the end of the “Max Routes” drill, you'll have a well-rounded session that includes both difficult and easier climbs, allowing you to build strength, technique, and endurance. Keep track of how you feel during each set to fine-tune the drill for your future sessions. Always climb safely!

Toe Taps

The “Toe Taps” drill aims to develop your core strength while also honing your foot-eye coordination and precision. The drill forces you to engage your core and legs, contributing to improved overall climbing performance.

Challenge Rating: Medium **Equipment Needed:** None

Identifying Routes

- Choose routes 1-2 grades below your current skill level suitable for this drill.
- The more overhung the route, the more this drill will focus on your grip strength.
- Consider your lower-body flexibility when choosing the wall orientation - overhanging routes vs slab routes.

Instructions

1. **Toe Tapping**: Before moving your hand to a new hold, tap your toe on the hold your hand is currently gripping.

Challenging Alternative

1. **Toe Tapping**: Before moving your hand to a new hold, tap your toe to the target hold.

Notes

- Depending on your flexibility, this drill is generally easier to perform on overhung routes due to the body positioning. However, the overhanging routes will require more grip strength.
- If you have limited lower-body flexibility and wish to ramp up the difficulty, try executing this drill on a slab wall.

By focusing on precise toe taps, you train your body to integrate complex movements, making you more efficient and precise in your climbs. This drill is an excellent addition to any climber's toolkit, particularly for those looking to level up their footwork and core strength.

Step-by-Step

The “Step-by-Step” drill is aimed at helping climbers build their endurance, perfect their techniques, and mentally prepare for more complex routes. By incrementally adding moves to the climb, this drill allows you to practice each part of the route more intensely than you would while climbing it all at once.

Challenge Rating: Medium **Equipment Needed:** None

Identifying Routes

- Choose a route or problem that's within your skill level but still poses some challenge. This will ensure that the drill remains both doable and beneficial.

Instructions

1. **Start Small**: Make the first move of the problem then reverse to the starting position without touching the ground.
2. **Build Up**: Without leaving the wall, do the first two moves of the problem and then climb back to the start.
3. **Incremental Climbing**: Continue this pattern, adding one more move each time and then reversing to the start.
4. **Reach the Top**: Keep going until you complete the entire route or problem in this step-by-step manner.

Notes

- This drill is especially useful for longer problems or routes where endurance and technique are crucial for success.
- Consider using this drill when you're having difficulty with a specific section of a climb; it allows you to practice that section multiple times in a single go.
- It's also a good mental training exercise, helping you break down complex routes into smaller, more manageable parts.

The “Step-by-Step” drill is a comprehensive training tool that benefits both your physical and mental aspects of climbing. It's an excellent way to vary your climbing regimen and focus on the quality of each move you make.

Bonus Content

Technique and Skills Breakdown/Overview

Climbing drills are a great way to hone techniques and skills necessary for improving your climbing, but they are most useful after you've developed a foundational skill or technique. For example, many drills help you become better at flagging. However, if you don't already know how to flag, it'll be very challenging to implement.

Foot Switching

Foot switching is a fundamental skill for changing your point of balance and freeing up a foot to move to a new hold. This technique is particularly useful in situations where you need to move laterally or change directions. It involves removing one foot from its hold and placing the other foot on the same hold, all while maintaining balance and control.

Smearing

Smearing is the technique of using the rubber sole of your climbing shoe to gain traction on a surface when there are no footholds available. It requires pressing your foot firmly against the wall and relying on the friction between your shoe and the wall to support your weight. Smearing is often essential in slab climbing and can be a valuable skill to master.

Fundamental Movement (Same Hand/Same Foot)

Fundamental movements in climbing are actions that help you maintain balance and control during your ascent. These movements allow you to efficiently use your legs, and they help prevent unwanted swings or 'barn doors' off the wall. The principle involves first moving your foot to a stable position before you move the corresponding hand. For instance, if you plan to move your left hand to a new hold, you should first move your left foot to a stable position, usually closer to the next handhold. Mastering this basic technique is essential for beginners and serves as a foundation for more advanced climbing skills.

Rockover

A rockover involves placing your foot on a hold closer to where your target handhold is and shifting your weight onto that foot, enabling your body to 'rock over' the leg and reach the next hold with minimum effort from your arms. This technique is particularly useful in slab and vertical climbing scenarios where upward momentum is needed but holds may be sparse.

Flagging

Flagging involves counterbalancing your body with a leg as you make a move that shifts your center of gravity. Instead of placing the foot on a hold, the leg is extended and used as a balancing counterweight. Flagging can help in reducing the load on your arms and maintaining a stable position during complex moves.

Drop Knees

The drop knee technique involves twisting your hip into the wall while pivoting your heel to point upwards and positioning your kneecap to point downwards. This creates a more stable triangular base and allows for greater reach and flexibility, especially during overhangs. Mastering drop knees can add a powerful tool to your climbing skillset.

Heel Hooks

Heel hooks involve placing your heel on hold and using your leg muscles to either pull yourself up or stabilize your position. This technique allows you to engage your hamstring and glute muscles, thereby relieving some weight from your arms, especially on the overhanging routes.

Toe Hooks

Toe hooks are executed by hooking your toes around a hold, typically while climbing on an overhang or a roof. This move helps you stabilize your lower body, allowing your hands to move more freely. Like the heel hook, the toe hook is a valuable skill for complex routes, but it puts more focus on your tibialis muscles instead of your hamstrings.

Mantling

Mantling involves using your arm strength to push your body upwards, much like you would do to climb over a wall or ledge. It's particularly useful when you encounter holds that are larger and can be gripped with your palm on top of the hold.

Dyno

A dyno is a dynamic move where you launch yourself up the wall to reach a distant hold. It requires a combination of timing, power, and coordination. This typically involves swinging and latching which requires good momentum control.

Dead point

A dead point is a controlled dynamic movement that involves reaching for a hold at the peak of your upward momentum. By timing the grab perfectly, you can catch the hold the moment your upward momentum has ceased but before gravity starts pulling you back down. One foot stays on hold while the other is pointed in a counterbalance position.

Gaston

A Gaston is a grip where your palms face away from each other, and you pull sideways rather than downwards.

Laybacking

In a layback, you lean back and rely on friction between your feet and the wall while pulling on hold with your hands. This is common when you want to minimize the strength needed in your arms.

Stemming

Stemming involves pressing your feet against opposing surfaces, like the sides of a chimney or dihedral. It allows you to ascend without overly relying on your hand strength.

Underlings

Underlings are holds that are gripped with the palms facing upwards. They often require a different set of muscles and a unique approach to body positioning.

Palming

Palming includes pressing the palm of your hand against a hold or the wall to gain extra friction and control. It's often used in slab climbing or to navigate around volumes and features.

While this summary offers a condensed overview of some climbing techniques, it's important to remember that these descriptions are just a starting point. For a deeper understanding and more nuanced instruction, a wealth of online resources, tutorials, and videos are available to elaborate on each technique. Whether you're a beginner or looking to refine your skills, additional research can provide valuable insights to help you climb more efficiently and safely.

Why We Warm Up Before Climbing

Now that you've set your intentions and mapped out your goals, you're all set to get climbing! But before you jump onto the wall or boulder, remember that a proper warm-up is non-negotiable.

Warming up prepares your body for the demands of climbing, reducing your risk of injury and enabling you to perform at your best. So take a few minutes to get your heart rate up and your muscles warm. Once you're warmed up, you're ready to dive into the drills and start making progress toward your climbing goals.

Injury Prevention: Cold muscles are more prone to strains and tears. A proper warm-up increases blood flow to the muscles, making them more flexible and less susceptible to injury.

Performance Enhancement: Warming up effectively prepares your body for the physical exertion that climbing requires, potentially improving your overall performance.

Mental Preparation: The warm-up period can also serve as a focused time to mentally prepare for the climb, helping you to concentrate, visualize your moves, and set your intentions.

Joint Lubrication: Warm-up activities help to lubricate the joints, which can make movements smoother and less painful, especially in areas like the shoulders, elbows, and knees that are heavily involved in climbing.

Cardiovascular Preparation: Gradually elevating your heart rate during a warm-up can help your cardiovascular system adjust to the increased demand, making your actual climbing less of a shock to the system.

Skill Reinforcement: For seasoned climbers, the warm-up can be an excellent time to reinforce basic skills or focus on technique, ensuring that good habits are carried forward into the more challenging parts of the climb.

Body Coordination: Simple warm-up exercises can help synchronize your mind and body, improving your coordination and reaction times, which are often critical when climbing.

How to Warm Up Before Climbing

Warming up for climbing doesn't have to be a rigid, one-size-fits-all experience. You can tailor your warm-up to suit your own needs, preferences, and the specific demands of the climb you're preparing for.

Whether you opt for dynamic movements or static stretches, a comprehensive warm-up is key. Focus on both major and stabilizer muscles for effective climbing preparation.

Your warm-up should aim to prepare not just your muscles but also your joints. Think about incorporating movements that activate the shoulders, wrists, hips, and ankles. This helps in lubricating these joints, making your climbs smoother and more efficient.

Intentional movement and technique should also be part of your warm-up. Use this time to focus on your form, hand placement, or footwork. This not only serves as a mental preparation but also ensures that you're engaging the right muscle groups and joints most effectively.

Examples of Warm-Up Exercises:

Shoulder and Hip Circles: Gentle, slow, and controlled rotations can improve the range of motion and functionality of your shoulder and hip joints. Aim for about 10-15 rotations in each direction for both the shoulders and hips to get the synovial fluid moving and warm up these essential joints.

Slow and Easy Climbing: Tackle routes that are several grades below your maximum ability. This not only helps to prepare your muscles but also gets you mentally tuned for the climbing session. Engage in slow, deliberate movements to focus on technique, body alignment, and controlled breathing.

Dynamic Stretches: Incorporate some leg swings, arm swings, and toe touches to dynamically stretch your muscles. Dynamic stretching can help activate your muscles and prepare them for the more strenuous activity to come.

Jogging or Jumping Jacks: A quick 3-5-minute jog around the gym or a set of 25-30 jumping jacks can be an excellent way to get your heart rate up. Cardiovascular activity is crucial for warming up your entire body and prepping your heart and lungs for the session ahead.

Core Activation: Basic core exercises like planks or Russian twists can wake up your midsection, which is integral for maintaining good posture and balance during climbing.

Visualization and Deep Breathing: Spend a few moments visualizing your climbing route and practicing deep breathing. Visualization helps set your intention and focus, while deep breathing calms your nerves and oxygenates your blood.

Set Your Intentions

Before you put your climbing shoes on and get chalk all over this book, it’s important to set your intentions for your climbing training. That’s why I want you to set your goal now.

Setting training goals before diving into drills can offer several benefits to the learner, whether they are a novice or an experienced climber. Here's why:

Clear Direction: A predetermined goal gives you a clear sense of direction and purpose, ensuring you don't waste time on drills that may not align with what you aim to achieve.

Focused Learning: Goals help you narrow down which drills are most relevant to your needs. This focused approach can lead to more effective and efficient training sessions.

Motivation: Knowing what you aim to achieve can serve as a motivational driver, keeping you committed throughout your training. Goals often provide that extra push to complete a challenging drill.

Measure Progress: Setting a baseline goal allows you to measure your progress effectively. It helps you understand whether you are improving, stagnant, or even regressing in your skills, enabling you to adjust your training regime accordingly.

Prioritization: Without goals, you may be tempted to spread your energy across too many areas. Goals help you prioritize so you can dedicate more time and effort to what truly matters for your climbing progress.

Psychological Benefits: The act of setting a goal can produce a psychological commitment, creating a sense of obligation toward achieving it. This enhances focus and perseverance.

Time Management: Goals help you allocate your time efficiently. You can break down your overall training objectives into smaller, achievable tasks and assign time to practice each of them.

Realistic Expectations: If you set achievable goals before starting your drills, you're more likely to have a realistic outlook on your training. This can help avoid setting yourself up for failure with overly ambitious or undefined targets.

Personal Accountability: A well-defined goal serves as a contract with yourself. Knowing what you're working toward increases your accountability, encouraging you to follow through on your training commitments.

For all these reasons, setting training goals ahead of time can significantly enhance the effectiveness, focus, and overall outcomes of your drill-based training regimen.

How To Set Goals For Climbing Training

For the longest time, I thought the only type of goal worth setting was a SMART goal - you know, the goals that are Specific, Measurable, Attainable, Realistic, and Timely. Typically, these goals are task-oriented, so if you do X, then you have accomplished your goal.

SMART Goal Example: Climb 3 V6 routes by the end of this year.

Another type of goal that has significantly increased my motivation, which better aligns with my needs as a climber, is called an Objective and Key Results (OKR). It's what I consider ideal for goal-oriented people who train for climbing and may feel like their climbing goals don't align with SMART goals. An OKR contains a main objective and several key results (what you need to accomplish to reach the objective).

OKR Example: Objective: Become a more efficient and skilled rock climber.
Key Result: Increase the number of climbs at a V5 level or above by 20% in the next three months.
Key Result: Decrease the average time spent on V3-V4 routes by 15% in the next six weeks.
Key Result: Achieve a grip strength of at least X lbs of force within two months.

These OKRs can also be used to help you feel better about climbing - Yep, I used the word "feeling" in relation to a goal because it's not just about completing a task.

OKR Example # 2: Objective: Feel more confident while climbing on crimps.
Key Result: Complete three drills on crimpy climbs each week for the following quarter.
Key Result: Increase hang board strength by 5% in the next six months.
Key Result: Complete 10 V4 or harder routes featuring crimps within the next month.
Key Result: Reduce the number of falls or resets on crimp-heavy routes by 25% in the next six weeks.

Record Your #1 Climbing Goal

Take a moment before diving into these drills to consider what you want to accomplish. I highly recommend setting a SMART goal or an OKR goal. *If you've never tried OKRs, this is a great opportunity to do so.*

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If you want some social pressure to help you accomplish your goal, consider telling your friends, family, and the staff at your local climbing gym.

Also, share your goal on social media and use #OKRsforClimbing to join the online community that is motivating each other to keep training.

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