

# BELAY

In mountaineering and rock climbing, *belaying* is a technique used to control the rope so that a climber's fall can be stopped safely. It is a critical skill, ensuring the climber's safety, and involves the belayer managing the rope connected to the climber to prevent serious falls.

## Key Aspects of Belaying

### Purpose of Belaying

• The main purpose is to protect the climber by securing them to a fixed point, like an anchor, or managing the rope through a belay device. In the event of a slip or fall, the belayer can arrest the fall by holding or locking the rope.

### **Roles in Belaying**

- Lead Climber: Climbs up and places protection points (like cams, nuts, bolts).
- Belayer: Manages the rope, ensuring it is neither too tight nor too loose, maintaining consistent control to catch a fall if necessary.

### Why Belaying is Important

1. Prevents Falls and Injuries:

Belaying allows the belayer to stop the rope quickly in case a climber loses grip, effectively catching them before they fall too far. This minimizes the risk of injuries from long falls or collisions with the rock face.

2. Controls Fall Impact:

Dynamic belaying, which involves slight give to the rope, softens the impact on the climber's body and the anchor points, preventing injuries due to a sudden stop.

3. Safety on Lead Climbs:

In lead climbing, where the climber is placing protection as they ascend, the belayer must be alerted to manage rope slack carefully. Proper lead belaying ensures that the climber has enough rope to move freely without too much slack that could lead to a long fall.

#### 4. Manages Rope Friction and Wear:

A skilled belayer can handle rope management well, reducing friction over sharp edges and protecting the rope from wear. This not only enhances safety but extends the life of climbing equipment.

#### 5. Essential for Multi-Pitch and Rescue Situations:

In multi-pitch climbing (climbing several successive pitches in a long route), belaying from multiple anchors is essential to keep both climbers safe and secure during

#### Adventure Awaits, Go Find With -

transitions. Additionally, belaying skills are critical during rescues, allowing a climber to secure injured partners or themselves.

### **Types of Belay Techniques**

There are several types of belay techniques, each with specific applications suited to different kinds of climbing situations.

#### 1. Top Rope Belaying

- **Description**: The rope runs from the belayer, up to an anchor at the top of the climb, and then back down to the climber. This is the most commonly used belay method in climbing gyms and outdoor top-rope setups.
- Application: Ideal for beginners and gym climbing, where climbers ascend a fixed rope route.
- Advantages: The belayer is positioned at the base, allowing for easy communication with the climber, and the setup provides a safer, controlled environment.

#### 2. Lead Belaying

- **Description**: Used in sport or traditional (trad) climbing, where the climber attaches protection (bolts, cams, nuts) as they ascend. The belayer feeds out rope as the climber advances, keeping just enough slack to allow movement while minimizing the potential fall distance.
- **Application**: Necessary for sport climbing, trad climbing, and climbing outdoors without pre-set anchors.
- Advantages: It allows climbers to tackle routes without top anchors in place and is essential for higher-difficulty and multi-pitch climbs.

#### 3. Multi-Pitch Belaying

- **Description**: This technique involves belaying from anchor stations as climbers progress up a multi-pitch route. The climber and belayer take turns leading and belaying as they advance up successive pitches.
- **Application**: Common in alpine and big-wall climbing, where climbers move up multiple sections or pitches of a long route.
- Advantages: Allows for continuous movement on long routes with multiple climbers and can be adapted to team rescues if needed.

#### 4. Auto-Belays

- **Description**: Auto-belays are automatic devices that manage rope tension and braking without a human belayer, usually mounted at the top of climbing walls.
- **Application**: Common in climbing gyms, providing a solo climbing experience for gym users.

#### Adventure Awaits, Go Find With -

• Advantages: Allows climbers to climb independently without a partner. Useful for gyms where climbers may not have access to a belay partner.

#### 5. Dynamic Belaying

- **Description**: Dynamic belaying involves giving a slight amount of extra rope during a fall to reduce the force on the climber and anchor system. This is usually done by slightly jumping or allowing the rope to slip slightly through the belay device.
- **Application**: Useful in both lead climbing and trad climbing, especially when climbing on less secure placements.
- Advantages: Reduces the impact force on both the climber and the anchor, lowering the risk of equipment failure or injury.

#### 6. Direct and Indirect Belaying

- **Direct Belay**: The belayer is anchored separately from the belay device, and the belay system itself is attached directly to the anchor. This is common in multi-pitch or alpine climbing.
  - Advantages: Allows for easier rope handling and ensures that any forces applied during a fall are taken by the anchor rather than the belayer's harness.
- Indirect Belay: The belayer is connected directly to the belay device and anchor via their harness.
  - **Advantages**: Provides more control and allows the belayer to dynamically arrest falls by absorbing some force with their body.

#### 7. Body Belay (Hip Belay)

- **Description:** This traditional method involves wrapping the rope around the belayer's body for friction, usually around the hip. It is less common now due to advances in equipment.
- **Application**: Sometimes used in emergency or mountaineering situations when no belay device is available.
- Advantages: Simple and requires no equipment, which is useful in unexpected situations.

#### **Belaying Techniques and Commands**

- Belaying requires clear communication between climber and belayer. Standard commands include:
  - "On belay?": The climber checks if the belayer is ready.
  - "Belay on!": The belayer confirms they are ready.
  - "Climbing!": The climber informs they are about to start.
  - "Climb on!": The belayer signals acknowledgment.

- Locking Off the Rope: When a climber falls or needs to rest, the belayer can lock off the rope using a technique to increase friction on the belay device, securing the climber in place.
- **Giving Slack and Taking In Rope:** The belayer adjusts the length of the rope to allow the climber movement or to take in slack when needed to minimize the risk of long falls.

### Safety Tips for Belaying

- **Check Equipment**: Ensure harnesses are secure, and the rope and belay device are in good condition.
- **Maintain Communication**: Use clear and consistent commands to ensure understanding between climber and belayer.
- **Stay Focused**: The belayer should never take their eyes off the climber. Attention is crucial for quick reactions.
- Use Gloves for Protection: In long belays, gloves help prevent rope burns.
- Know Emergency Procedures: In case of a fall or accident, the belayer must be prepared to secure the climber and call for help if needed.

### **Common Belay Devices**

- ATC (Air Traffic Controller): A versatile, tubular device that works for both single and double ropes. It allows smooth rope handling and control.
- **GriGri**: An assisted-braking device that provides additional stopping power, making it popular for sport climbing and top-roping.
- Figure-8: A traditional device, primarily used in rappelling, though it can also function as a belay device in certain situations.
- Auto-Belays: Fully mechanical devices that allow solo climbing in gyms without needing a partner.

## **Practical Benefits of Belaying**

- **Skill Development**: Learning to belay fosters focus, decision-making, and responsibility, as the belayer's actions directly impact the climber's safety.
- **Confidence in Climbing**: Knowing that a competent belayer is managing the rope provides climbers with a sense of security, allowing them to attempt harder routes.
- **Teamwork and Trust**: Climbing is often a team sport where trust between climber and belayer is essential. Good belaying skills promote teamwork and foster trust in each other.

Mastering these techniques and understanding the importance of each type can significantly improve the safety and success of any climbing expedition.