How to Choose Hiking/Backpacking Socks

Anyone who's ever experienced blisters on a hike knows how critical quality socks are to foot comfort and injury prevention. The socks you wear on the trail can have a significant effect on your hiking/backpacking experience. Like footwear, socks must be chosen carefully to match the kinds of conditions you expect.

Sock Design

The design and look of socks will vary with each manufacturer as well as the weight class of the sock. However, the main components of a hiking/backpacking sock are as follows:

- The top of the socks is the section slightly above your ankle upwards. It often has an elastic material and ribbed design to keep the socks from falling down. This section is often what's seen above a boot and includes a cuff, which is the finish at the top.
- The instep covers the top of your foot from the ankle down to your toes. This area can feature minimal to average cushioning depending on the type and weight of the sock.
- The sole, like a boot, this section is the bottom of the sock. It includes the area slightly above the ankle to the toes and contains the majority of the cushioning, including sections for the ankle, heel, toes, and the balls of your feet.
- Side panels are found in some designs. These sections are sandwiched between the instep and the sole and may contain specific materials for airflow and moisture-wicking.
- The arch brace, or arch support, is the section of the sock that surrounds the arch of the foot, supporting the foot's arch and holding the sock in place.

Material Options

Natural Materials:

Wool is an extremely popular natural sock material. It is warm, cushioning, and retains heat when wet. Unfortunately, wool can take a long time to dry and it can be scratchy next to your skin. It can also wear out quickly if not reinforced with other materials. Gone are the days of the 100 percent wool socks. Today, natural and synthetic fiber blends is the sock standard because they address many of these problems. Yet wool still comprises a significant percentage of the fabric components of a hiking/backpacking sock (many manufacturers list the percentage of materials used on packaging). When searching out a sock, you will likely find wool will compose anywhere from 25 to 85 percent of the overall sock material

For those of you who have memories of extremely itchy, wool socks, fear no more. Merino wool will help you overcome an itchy wool phobia. Merino wool has the qualities of regular wool (excellent breathability, insulation, strength, and quick drying time) minus the itch. In fact, it's a soft and comfortable material to wear. Mohair and worsted wool are two other common wool types found in socks.

Silk is another natural fiber commonly found in socks. Silk is a natural insulator and is comfortable and lightweight, but not as durable as other options. It's occasionally used in sock liners for reliable wicking and a smooth feel.

Avoid socks containing large quantities of cotton for hiking or other outdoor activities. Cotton is a poor insulator and retains moisture. The latter trait is what leads to hotspots (i.e., friction areas) on your feet when you hike and ultimately causes blistering. Cotton socks are a recipe for disaster when hiking – do your feet a favor and don't wear them.

Synthetic Materials:

There are a number of man-made materials designed to insulate like wool and wick moisture, without the negatives mentioned above. These materials (Hollofil, Thermax, Thermastat, etc.) trap warmth like wool, but they are softer on the skin and are available in a variety of sock styles and thicknesses. They also dry more quickly and are more abrasion resistant. The synthetic wicking materials (like polypropylene and Coolmax) used in wicking sock liners are often woven into thicker backpacking socks as well, to enhance wicking performance.

Many hiking/backpacking socks provide extra cushioning around the heel, the ball of the foot and the toe area to increase comfort. The padding is created either by increasing the density of the weave in those areas, or in some

cases by weaving long-wearing materials like acrylic into those areas. This extra padding can be a real foot-saver on hard trips over rough terrain.

Many of today's hiking/backpacking socks include a small percentage of either stretch nylon or Lycra spandex. These elastic materials help socks hold their shape and keep bunching and wrinkling to a minimum.

Selecting a Sock Style

Hiking/backpacking socks are designed to provide warmth, cushioning and abrasion resistance in a variety of conditions. The right sock for you depends on the kinds of trips you have planned and the weather conditions you expect. For example, a lightweight sock will compliment light hikers on easy trails for a few hours of hiking. Step-up your trail type or intensity and you'll want mid-weight socks. While heavyweight socks will be needed when tackling rough and difficult terrain for several hours. Here are the basic categories you have to choose from:

Liners: Sock liners are thin, lightweight wicking socks designed to be worn right next to your skin. These liners wick sweat away from the surface of your foot to keep you dry and more comfortable. Liners also limit the amount of abrasion between your outer sock and your skin. They are designed to be worn under other socks.

Lightweight hiking/backpacking socks: Designed for warm conditions and easy trails, lightweight hiking/backpacking socks stress wicking performance and comfort over warmth. These socks are thicker, warmer and more durable than liners alone. They also provide more cushioning. But they are relatively thin so that you can stay comfortable on warm weather trips. Because most lightweight hiking/backpacking socks are made from wicking materials, they can be worn with or without liner socks.

Mid-weight hiking/backpacking socks: These socks are designed to provide reliable cushioning and insulation in moderate to cold conditions. They tend to be thicker and warmer than lightweight hiking socks. Many models have extra padding built into high-impact areas like the heel and the ball of the foot for maximum comfort. These socks should be worn with liners.

Heavy-weight hiking/backpacking socks: These socks are the thickest, warmest and most cushioned socks available. They are designed for long trips, tough terrain and cold temperatures. Usually, heavyweight socks are too thick and warm for basic backpacking journeys in warm conditions.

How to pick what sock to buy once you've loosely chosen a weight category can be influenced by several factors, including: biomechanics, activity and your specific footwear, and weather conditions and temperatures.

Biomechanics:

Knowing about your biomechanics is not as complicated as it sounds. Biomechanics is the mechanics of muscular activity, and knowing the nuances of how you move can help you choose where you'll need cushioning in a sock. For example, after walking, or hiking, for a long period most of us have spots on our feet that are more prone to soreness or irritation than others. Granted, some of these spots may be irritated by improperly fitting footwear, but some of it has to do with biomechanics.

Look for extra cushioning in the areas that get sore when buying a sock. Often a sock with extra heel or toe cushioning is what's required. Another example may be someone who often finds the tops of their feet rub the tongue of their boots, causing discomfort. In this case, this individual should look for extra padding in the instep of a sock.

Footwear to Match Activity:

A straight match of sock and boot weight doesn't always cut it on the trails. In some cases, altering the sock-to-boot-weight formula makes more sense and is more comfortable. This often occurs when one wishes to temporarily stretch their footwear beyond its intended use by increasing the activity duration, intensity or the difficulty of trails and terrain. Note: this is often a temporary solution; in the long run, you'd be better off to buy the proper footwear for better support and cushioning, as well as reducing the chance of injury, like twisting your ankle.

For example, an individual with a pair of light hikers may want a pair of mid-weight socks to provide support and cushioning if planning to hike long hours, for several days on rough trails. In this instance, even though the socks

do not match the boot's weight, they compliment the activity and its intensity. Another situation could be an individual using heavyweight socks in mid-weight boots for extra cushioning at the toes to descend steep trails.

Climate and Temperature:

Climate and weather can also be factors in breaking the sock-to-boot-weight formula, whether it's adding weight for cool climates to reducing weight for warm environments. To illustrate with an example, a backpacker with mid-weight hiking boots could carry three sock weights on a multi-day, intermediate mountain climb. At the beginning of the hike lightweight socks could suffice in hot temperatures, yet as the trail difficulty increases and the temperature gets cooler, switching to mid to heavyweight socks may be necessary.

One point to keep in mind is moisture trapped in a boot leads to hotspots and will cause blisters at the friction points. The balance between keeping feet warm and properly cushioning, but not overheating them, is difficult. It is sometimes better to bring extra socks, changing them often, drying worn ones, to ensure your feet stay dry and warm.

One Sock or Two Socks

Today, most socks are individually designed to suit feet when hiking or backpacking. The fabric blends will insulate, wick moisture and cushion all at the same time. Yet another method to achieve these same results is a two-sock system. This system teams a thin, liner sock with a thicker, outer sock. It also follows the layering principle of outdoor wear.

The inner layer wicks moisture from the skin, keeping it dry. The outer layer cushions and insulates, but also wicks away moisture. Additionally, the liner acts as a second skin, providing additional protection from friction and reduces blister-prone hikers. Whether you prefer to wear one or two socks is really a matter of personal preference as both approaches work.

Fitting Tips

When possible, take a quick walk in the sock styles you are considering to get a feel for how much cushioning they have. And be sure to buy the right size – your socks should fit snugly. Bunched up sock material can make any hiking or backpacking trip an uncomfortable one.

Here are some quick tips on choosing the best fitting sock:

- Each weight classification varies in features and design from manufacturer to manufacturer, so try on a few different brands in the same weight class to find the best fit for your foot.
- When trying on socks look for a snug, but not tight fit. The material shouldn't pull too tight or be baggy in any area of the foot.
- Buy socks in various colors so you can change from worn to dry socks on long hikes as needed.
- Check washing instructions, as high maintenance ones may not suit you.
- Purchase a range of sock weights. In most cases a few light and mid-weight hikers will do fine, and one or two heavyweights may be necessary if you plan to hit difficult terrain or cold conditions.

Quality socks are just as important as proper fitting hiking boots to ensure comfort on the trails. When compared to cotton sport socks, hiking socks may seem a little expensive but it's a small price to pay for reducing blisters and providing proper cushioning.