

Hey Parents, it is Time to Do YOUR part to keep your Scout dry!

As leaders we can try and encourage/require your scout to wear their **rain gear, boots, layers** etc... but if it is not in the pack to begin with, there is nothing we can do! We need you to do your part to help!

EVERY scout needs to have and carry with them rain gear at all times! It is one of the '10 essentials' (see Scout Handbook) and those go with them every where out doors. Your job is to work with them to buy rain gear that is 100% water proof (not just resistant) and your job is to get them to put it into their pack. It is our job to take it from there.

These kids grow. They outgrow their gear and you have to buy it again from time to time. So buy it **larger** than they are now, and you delay that repurchase.

What should you buy? Boots and Rain Gear. But what? No simple answer here. It depends on your scout and you. Let's start with Rain Gear. It must be something water proof and something they will carry and wear. Ahhhh, that is the challenging part. There are many options out there.

- There are expensive "breathable waterproof" garments and here is what you need to know, in a nutshell, about them. They are light weight and comfortable. **BUT** you can not really launder them, and the waterproofing wears out and they are expensive. You must buy and wear both a top and a bottom because otherwise the rain sheds off the top onto the pants.
- Whatever it is **MUST have a HOOD.**
- There are vinyl rain suits and here is what you need to know about them: They are 100% water proof, and they are more affordable. You **MUST** wear both top and bottom or else the water sheds off onto your pants from the jackets. They are heavy to lug around and you can sweat inside unless (or even if) you have a lot of vents.
- There is the basic poncho out of vinyl or plastic. The deal here is that they are light weight and versatile, but they rip easily and your pants get wet.

So do you want to invest a lot of money for a high tech thing that you can not basically clean? In Boy Scouts we do things a typical REI customer does not do. We really, really have a knack of getting muddy. Your choice about buying extra non-detergent cleaners and re-applying waterproofing. Your time and budget. These clothes really are lighter weight and more comfortable, but are they worth it for your growing muddy scout?

I suggest you go to rei.com, "Expert Advise" and read "How to Select Rainwear" **AND** the Restoring Water Repellency articles. Think about what you want to do and can do and then take your scout shopping. Be aware that some REI employees just want to

recommend the expensive stuff because they are great for John Q Public, but do not know the needs of a Boy Scout/Boy Scout mom.

**These Boots Are Made for Walking. . .
but not necessarily for rain and mud**

Your Scout needs good fitting, comfortable boots! NOT tennis shoes! These boots need not be expensive (remember they grow) but they do need to fit. Your Scout needs to love them so they will wear them. If not then all is lost. You need to take the socks your scout will wear with them to the store and try them on with those socks. If your Scout wears arch supports or anything then they need to try on the boots with those too. If not you have wasted time and \$. Please bear in mind when shopping for them what we do in them, for we have a tendency to get into mud and water.

Why boots? They support the child's ankle better than shoes, they have better soles that are thicker to cushion and protect the foot, with better grips on the bottoms than ANY athletic shoe.

Once you buy these wonderful boots, you will need to all but ruin them getting them waterproofed! Warn your scout ahead of time so they know this. There are different methods depending upon the material the boots are made from. All leather boots can be sprayed or coated with a bunch of things. Suede boots have to be smeared with Snow Seal and this will forever change the color and texture of the boot . . . but it WILL be water proof. We need water proof, or water proofable boots. We walk in rain, streamlets, snow and rain and puddles (remember these are boys) in our boots.

Does your Scouts boots stay tied? Boots tend to come with nice fat, round laces that untie themselves as fast as they can be tied. You might need to replace them with falter laces or laces made of less slippery stuff. Leather laces are hard to stay tied in the beginning as well. The new round ones get dirty and used and eventually do tie, but there is a lot of untied Boots before then just so you know and Scouts will tie them once maybe twice and that is it.

Lovely Layers

We need your scouts in layers! 3 layers should always be in their packs. The innermost one should be a poly undergarment layer for comfort and wicking away of moisture. The middle an insulating layer and the top the wind and water proof one. Remember this mantra, parents, **“cotton kills”** and you will be fine. Really, no cotton. So that means no cotton tee-shirts, no cotton sweat shirts. Those are fine for summer, but not for winter. Heck even the scout shirts and pants are not cotton for a reason. They dry fast and they don't stain are 2 added benefits.

Here is some general advice from the REI's web site (T-103 is not telling you to go buy your gear at REI but we appreciate their information!):

Rainwear

1. Your choice of rainwear depends on expected weather and climate, your planned activities and your budget.
2. The main fabric choices for rainwear are waterproof/breathable, water-resistant/breathable, and waterproof/non-breathable.
3. Waterproof/breathable fabrics, available in different weights, are the most versatile fabrics.
4. Features such as vents, zippers and linings can add to your comfort.
5. Other considerations include a garment's style and cut, plus how well it packs.

How to Choose Rainwear

Your outer shell does more than keep off rain. Rainwear also protects you from wind, snow and cold. Different garment styles, fabrics and construction are available to suit a wide variety of needs.

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Consider Your Needs

Choose rainwear appropriate for your outdoor plans. How and where will you be using it? Anticipate the most extreme conditions you might encounter and plan accordingly. Will you be in a canoe, waiting for the fish to bite? Hiking or running a trail? Visiting a rainforest? Skiing or climbing in a snowstorm? Walking around town?

Begin your search for the right rainwear by considering all of the following:

- Temperatures you expect to encounter most often
- Amount and type of precipitation you anticipate
- Types of activities where you'll use your rainwear
- Budget

Consider Fabric Choices

Fabric affects the performance and comfort of your outer layer. Rainwear fabric falls into three basic categories:

- Waterproof/Breathable
- Water-Resistant/Breathable
- Waterproof/Non-Breathable

Waterproof/Breathable

Because water vapor is able to pass through the fabric, waterproof/breathable shells are appropriate for the widest range of activities and weather conditions. Such fabrics are not 100 percent waterproof or perfectly breathable, but they do an impressive job of repelling water while allowing water vapor to escape as you work up a sweat.

Typical Uses—Waterproof/breathable fabric can be found in a variety of garments—technical parkas for skiing and mountaineering, more casual rainwear for hiking or around-town use.

Positives—Waterproof/breathable layers are an excellent choice for a wide range of weather conditions and activities. Their combination of breathability and moisture protection means that you can buy a single layer for everything from summer backpacking to backcountry skiing.

Negatives—Even waterproof/breathable fabrics have their limits. Exact performance depends on the specific type of waterproof/breathable fabric used, the outside temperature, your activity level and other factors. Waterproof/breathable fabrics are more expensive than other types of outerwear.

Examples—There are two types of waterproof/breathable fabrics: laminates and coated fabrics. Both are very effective. A membrane such as Gore-Tex®, REI Elements® or Marmot MemBrain™ is laminated to a base nylon or polyester fabric. Or a waterproof/breathable coating is applied. Coated, waterproof/breathable fabrics include Hydroseal®, Columbia Sportswear Omni Tech Ceramic™ and Lowe Triple Point® Ceramic. All of these fabrics also have a durable water-repellent finish (or DWR) on the outside that causes water to bead up and roll off.

Water Resistant/Breathable

These shells serve as breathable outer layers for mild weather, light precipitation and high activity level. They're made of tightly woven fabrics (such as mini rip stop nylon) that block the wind, and they're also treated with a durable, water-resistant (DWR) outer finish to make water bead and roll off.

Typical Uses—Water-resistant/breathable fabrics are perfect for anyone who needs weather protection during strenuous outdoor activities such as running, cycling or Nordic

skiing. They're also appropriate in warm conditions where breathability is important and the chance of heavy precipitation is low.

Positives—Water-resistant/breathable layers repel wind and light precipitation while providing excellent breathability to keep you cool when your body heats up. They tend to be lighter, less bulky and less expensive than other outer layers.

Negatives—They are not adequately weatherproof to protect you in harsh conditions or during extended periods of rain.

Examples—This rainwear is typically made of lightweight polyester or nylon, which is tightly woven to keep out wind and light drizzle while allowing water vapor to escape. The fabrics have a durable water repellent (or DWR) finish that causes water to bead up and roll off before it can be absorbed.

Waterproof/Non-Breathable

Typically made of a durable, polyurethane-coated nylon or PVC, these economical shells are water- and windproof, making them ideal for light activity in heavy precipitation.

Typical Uses—Waterproof/non-breathable layers are most commonly used during low-energy activities and when the chance of heavy precipitation is high. Because they're so affordable, waterproof/non-breathable fabrics are also used occasionally in moderate conditions. Examples include ponchos and vented rain suits.

Positives—Waterproof/non-breathable layers offer the ultimate protection from rain and wind. They are more durable and less expensive than most other outer layer options.

Negatives—Non-breathable layers can get extremely uncomfortable with even moderate exercise and outdoor temperatures. The moisture and heat that your body produces cannot pass through the fabric itself so these layers must be cut extremely loose (ponchos, for instance) or they must have generous vents to allow body heat and sweat to escape. This type of rainwear is generally heavier and bulkier than other styles.

Examples—PVC and polyurethane-coated nylon jackets, pants and ponchos typically make up this type of rainwear.

Boots

How to Choose the Right Footwear

Choosing the right footwear may be the most important decision you make as a beginning backpacker. The shoes or boots you choose must be comfortable, durable and protective, mile after mile.

Step #1: Consider the Kinds of Trips You Have Planned

Outdoor footwear can be divided into 3 basic categories. Begin your search for the right boots or shoes by focusing on the category that best matches your backpacking plans.

- **Lightweight hiking** - These boots (and trail shoes) are designed for day hiking and very short overnight trips only. They stress comfort, cushioning and breathability. As a result, they are less supportive and durable than the options below.
- **Midweight hiking/backpacking** - These boots are designed for on- and off-trail hiking with light to moderate backpacking loads. They are more durable and supportive than lightweight hiking boots, but they are still intended primarily for short to moderate trips over easy to moderate terrain.
- **Extended backpacking/mountaineering** - These boots are designed for on- and off-trail hiking with moderate to heavy backpacking loads. They are designed with multi-day trips in mind. Durable and supportive, they provide a high degree of ankle and foot protection. Some of these models are designed specifically for rough terrain with heavy backpacking loads. They offer the very best in durability, support and protection. Some are stiff enough to accept crampons for snow/ice travel.

Step #2: Consider the Materials

The materials used in a given boot or trail shoe will affect its weight, breathability, durability and water-resistance. Since boots made of different fabrics can be very similar in performance, however, personal preference is often the key when choosing between them.

- **Nylon mesh and split grain leather** - Nylon and split-grain leather boots are lightweight and breathable, which makes them perfect for warm- to moderate-weather use and short to moderate backpacking trips. They tend to be softer on your feet, they take less time to break in, and they are almost always lighter than full-grain leather boots. They also cost less. Unfortunately, nylon/split grain boots tend to be less water-resistant than full-grain leather boots (although styles that feature waterproof liners can be just as water-tight, if not more so).

- **Full-grain leather** - Full-grain leather is extremely water-resistant, durable and supportive (more so than split-grain leather or nylon). It's used primarily in backpacking boots designed for extended trips, heavy loads and hard terrain. Not as lightweight or breathable as nylon/split grain combinations, but it typically lasts far longer. Full-grain leather usually requires a break-in period..
- **Waterproof barriers** - Lightweight, waterproof barriers (like Gore-Tex™) are built into many hiking boots to enhance their water resistance. These barriers are available in a variety of boot styles, from lightweight hikers to extended hiking/backpacking models. Waterproof performance depends upon the type of barrier used, the materials protecting it and how well the boots/shoes are taken care of. If cared for correctly, these waterproof barriers often last longer than the boots themselves.

NOTE: Be careful when shopping for backpacking boots to differentiate between the following:

- **Waterproof leather** -- This is leather that's been treated to be waterproof. It's great stuff to have, but remember -- leaks may still occur (depending on how well the boot pieces are put together).
- **Waterproof (or water-tight) construction** -- This refers to construction techniques designed to keep leaks out (like seam-sealing, special stitches and precise designs). Water-tight construction is typically combined with waterproofed materials.
- **Waterproof liners** -- These are the special waterproof barriers described above that are built right into the boot to protect you from whatever leaks make it through the boot materials. These liners typically do a great job of keeping you dry. But remember, Gore-Tex (and the others) doesn't last forever.

TIP: The waterproofness (or water-resistance) of your hiking boots depends significantly on how well you treat them. Be sure to follow all care instructions that come with your boots so that they can perform well and last a long time.

Step #3: Consider the Way the Boots are constructed

Upper construction

The more seams a boot or shoe has, the higher the risk for leaks and/or blow-outs. Leaking occurs when water seeps through the needle-holes or spaces between the boot panels. Blow-outs occur when general wear, repeated flexing or a snag causes a stitch to break and 2 panels to separate. In general, the fewer seams an upper has, the more water-resistant and more durable it will be.

The connection between the upper and the sole

Hiking boot soles are either stitched or cemented to the rest of the boot.

- **Stitching** - Durable, reliable, can be undone to replace the sole once it has worn down. Different techniques (Littleway, Norwegian) result in different strengths and stiffness.
- **Cementing** - Faster and less expensive than stitching, resulting in lower boot prices. It hasn't always been reliable, but most modern methods produce durable, long-lasting bonds (depending upon the process and specific glue used). Most cemented boots can now be resoled just like traditional stitch-down models.

Step #4: Test for Fit

Once you've narrowed down your options to a handful of boots or shoes, the best way to decide between them is to try them on. Don't rely solely on your "regular" shoe size when searching for the best fitting boots or shoes. One manufacturer's "9" may vary widely from another's (see below).

Fitting tips:

- **Begin with a foot measurement** - Have an experienced salesperson measure both of your feet using a Brannock device. Use these measurements as your starting point for trying on boots. If one foot is larger than the other (which is quite common), fit your larger foot first. You may need to use extra socks or an insert to take up extra space in the other boot.
- **Pick the right socks** - Wear the type of socks and sock liners that you'll be using out on the trail whenever you try on boots.
- **Check the initial fit** - Lace up the boots and stand up. They should feel snug around the ball and instep of your foot, but loose enough that flexing your foot forward is not uncomfortable. Your heel should be held firmly in place. If your foot feels like it's "floating" inside the boot, try a half size down. If your foot feels cramped or your toes make contact with the front or sides of the toe box, try the next bigger size.
- **Take a walk** - Take a walk and see how comfortable the boots/shoes are. Check for any looseness, foot movement and/or heel lift. Good-fitting boots will hold your feet firmly in place without binding or pinching them. New boots may feel a little stiff at first, but they should still be comfortable.
- After a quick walk across a flat surface, step onto an incline facing downhill (if one is available) to check for foot slippage. Your feet should not slide forward easily, nor should you be able to move your heel from side to side. If either of these is possible, try a smaller (or lower volume) boot. If your toes make contact with the front of the boot without much forward movement, try a larger size or a different boot.
- **Investigate your options** - Try on a number of boot models before you decide on a single pair, even if the first pair feels good. Every boot model is built around a different "last" (standard foot shape), so each one will grab you a little differently.

Boot Care Basics

Keep your boots and trail shoes clean between uses by brushing off dirt and mud (both can ruin leather over time). Most fabric boots/shoes can be washed on the outside with mild soap and water (not detergent).

If your boots get drenched, stuff them loosely with newspaper and dry them in a warm place. **Never rush the drying process by placing them near a fire**, heater or other heat source. Boots, especially leather ones, should be conditioned from time to time to maintain your investment. This is true whether you hike in dry, hot conditions or wet, temperate ones.