

## DRESSING FOR OUTDOOR ACTIVITIES.

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**Part 1** – Overview

**Part 2** – Details

**Part 3** – Summary

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**PART 1** – Overview:

- Layers – Really Important
- Synthetics, silk, & Wool – Good
- Blends (cotton & synthetic mixed) – OK
- Pure Cotton – Ok for shirts, although in extreme wet and humid conditions, cotton is not the best choice (see details below). Not recommended for base layers or pants.
- Wet – Bad

REI – Good. (If you know nothing – go to REI in College Park – good prices, good advice & assistance, good equipment & choices.) (See last page for Directions & Hours.)

How many layers (minimum)?

Feet – 3

Lower Body – 2

Upper Body – 4

Head – 1

Hands – 1

**PLUS THE ALWAYS IMPORTANT RAIN GEAR**

These layer recommendations are minimums. More layers are always ok. Less are not.

This all applies to year-round activities – 0 to 110 degrees F; wet or dry.

**Be prepared** to wear the described clothing or **be prepared** to put it on quickly.

NOW – **PART 2** – The Details:

**Layering is GOOD** for 4 reasons:

2 reasons are solely for protection against temperature variations.

1 reason is for protection against blisters.

And 1 reason is for both.

(1) Layers trap air and thereby provide excellent insulation.

(2) Layers can be easily added or removed to provide the right level of comfort while minimizing sweating.

(3) Layers on the feet help protect against blisters by reducing friction on your feet.

(4) Layers allow for wicking of moisture away from the skin to allow for evaporation. This keeps the body from getting cold in cool weather and reduces the possibility of blisters. This is true only if the base layer is not pure cotton.

**Materials:**

**Synthetics and wool** are good for all layers. **Blends** of cotton and a synthetic fiber are ok.

**Wool** is the one natural fiber that insulates well and retains its thermal insulation properties when wet. **Silk** is supposedly a great base layer – but I have no experience with this.

**Why is cotton sometimes not good?** It holds moisture, does not wick, dries extremely slowly, loses thermal insulation properties when wet, is heavier than other materials when dry, and is extremely heavy when wet. For most occasions (except extreme wet & humid conditions) cotton shirts are fine. Many Scouts even wear cotton jeans. Personally, I would never wear cotton jeans.

**Down** is not recommended. It is another natural material that provides excellent insulation (geese swear by it). Pound for pound, down is still the best insulation material, although synthetics are getting close. Unfortunately down loses its insulation properties when wet. And it is very difficult to dry. (If you use a down sleeping bag, be sure it is carried in a reliable, water-proof bag, and be extremely careful not to get it wet when in use – it is very difficult for even the most experienced camper to avoid ever getting water inside his tent.) **Note:** One Assistant Scoutmaster strongly prefers down and is confident he can avoid getting it wet – so you make the call.

**Hypothermia** (uncomfortable or dangerous low body temperature): We operate in the most challenging temperature range during our outings in September – May. This is the WET-COLD range (above freezing, but below comfortably warm). Folks in much colder climates do not need to be so concerned about wetness – we do. The most common time hypothermia occurs is in the temperature range 32 – 60 degrees F. The cause is wet skin. This is why non-pure-cotton base layers are important – and why wicking is important – and why taking off layers to avoid excessive sweating is important.

## **RAIN GEAR – a must for every outing:**

Recommended – Waterproof Coat, with built-in Hood, or with Waterproof Hat, plus Waterproof Pants that can be put on and off over boots.

Keep in mind that a coat needs to fit over the other clothes you are wearing. So for winter activities, the coat needs to go over your outer coat, unless the raincoat is also your outer coat.

Pants that can be put on over boots (without having to take off the boots first) become a real lifesaver at times when rain comes up quickly. It sounds like a luxury – but it becomes much more than that in practice.

Waterproof fabrics that breath (like Gore-Tex and other brands) offer a huge advantage in reducing the build up of perspiration.

Ponchos are not as good. They can't be worn effectively with a backpack. Cheap ones (made of weak materials) quickly become shredded by branches and brush. They also rarely keep the lower body very dry. The exception is hot summer activities. Here a good poncho can offer rain protection and allow limited ventilation, making life more bearable.

Keep in mind that compactness and lightweight are desirable features in all we do. Remember it has to fit in your pack or on your pack when not in use.

## **BOTTOMS UP:**

**FEET – 3 layers** a must for any hiking, backpacking or just standing around in the cold.

Base or 1<sup>st</sup> layer – thin, synthetic liner socks – excellent wicking.

2<sup>nd</sup> layer – thick, synthetic or wool outer socks – for insulation and cushioning.

Boots (3<sup>rd</sup> layer) – ankle height or higher a must for protection against ankle-joint injuries.

- Water resistance a huge plus (Gore-Tex or equivalent or apply external waterproofing).
- Weight is a consideration – everything else equal, go for the light boots (it is like taking pounds out of your pack).
- You should be able to wiggle your toes when wearing liner and outer socks – crucial for proper circulation and thus warmth.
- If boots are too big you will have movement resulting in blisters or sores – try additional or thicker socks – additional layers are always ok – less layers are not ok.
- Avoid lumps and ridges in socks under your feet – this is a quick recipe for blisters.
- Wear liner and outer socks year-round, no matter how hot – you will be glad you did.
- **Waterproof over socks or plastic bags** should be carried along with your spare socks in case your boots get wet. This way you put on dry socks and keep them that way inside your wet boots.

**LOWER BODY – 2 layers** – a must for cool or cold weather.

Base layer – synthetic, silk, blend, or wool long underwear.

Outer layer – synthetic or wool. Zip off legs are great – that way you can convert to shorts for cooling or for wading through creeks.

Rain pants can serve well as backup outer pants or as a 3<sup>rd</sup> layer when it is really cold. Snow pants are a great layer for really cold weather.

**UPPER BODY – 4 layers** – more for really cold weather.

Base layer – synthetic, silk, blend, or wool.

2<sup>nd</sup> layer - synthetic, silk, blend, or wool.

3<sup>rd</sup> layer - synthetic, blend, wool, Polartec or equivalent, fleece, sweater.

Outer layer - synthetic, blend, wool, Polartec or equivalent, fleece, sweater. Either your outer coat must be waterproof or your raincoat must fit over it.

I wear a Polartec under-coat as a 3<sup>rd</sup> layer with a Gore-Tex overcoat that has a built-in hood for my outer layer. I have found this to be an excellent scheme for Troop activities as well as the rest of life. It is warm, provides for layering combinations, and eliminates the need for a rain hat.

**HEAD – 1 layer** – don't forget this all-important layer.

The joke in Scouts is that you lose 120% of your body heat through you head – or is it 80% or 60%. Nobody knows exactly how much – but it is a lot. You can greatly increase your ability to be comfortable in cold weather with good headgear.

Two layers are not too much. As a base layer, I use a balaclava (a thing that covers the head and neck – allowing only the eyes, and if desired – the nose and mouth to stick out. I use a watch cap on top of that when it gets colder. I have a really warm puffy-hat when it really gets cold (no one cares what they look like when it gets really cold).

Consider a warm scarf or neck warmer to supplement the above for really cold times.

**HANDS – 1 layer** – don't forget the gloves.

Thin gloves are good for some weather and work well as potholders in all weather. Sometimes I find these adequate for cold weather when a fire is available and I can keep my gloved hands in my coat pockets a lot. The advantage of these is that you can leave them on when doing detail work – fire building, tent pitching, stove lighting, etc. A pair of cheap work gloves can be found for under \$2.

Thick gloves, outer gloves, or mittens are necessary for really cold weather. Some folks rave about mittens – especially as outer coverings over light gloves – I have never used them.

NOW – **PART 3** – Summary:

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## Clothing Checklist

- r Boots – ankle height or higher a must for protection against ankle-joint injuries.
  - r Liner Socks – thin, synthetic liner socks – excellent wicking.
  - r Outer Socks – thick, synthetic or wool outer socks – for insulation and cushioning.
  - r Long underwear – synthetic, silk, blend, or wool long underwear.
  - r Outer Pants – synthetic or wool. Zip off legs are great.
  - r Under shirt – synthetic, silk, blend, or wool.
  - r Outer shirt – 2<sup>nd</sup> layer - synthetic, silk, blend, or wool. Cotton ok except for wet/humid.
  - r Coat liner, sweater, etc – 3<sup>rd</sup> layer - synthetic, blend, wool, Polartec, fleece, sweater.
  - r Outer coat - synthetic, blend, wool, Polartec or equivalent, fleece, sweater.
  - r Watch cap, balaclava, scarf, head warmer.
  - r Gloves.
  - r Waterproof Coat, with built-in Hood, or with Waterproof Hat, plus Waterproof Pants that can be put on and off over boots.
- r Second set of the clothes sealed in plastic bags in your backpack as backup.

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### RECREATIONAL EQUIPMENT INC (REI)

**Take Beltway (I-495) East toward Silver Spring/Baltimore**

**Go past I-95 Exit and stay to the Right**

**Get off at US 1 South (EXIT 25)**

**Get in left lane at Traffic Signal**

**Take First Left onto Edgewood Road**

**At 4-way Stop, turn Right onto Rhode Island Avenue**

**REI is first Left.**

#### College Park

9801 Rhode Island Ave  
(Hollywood Plaza)  
College Park, MD 20740  
(301) 982-9681

#### **Store Hours:**

M-F: 10 am - 9 pm  
Saturday: 10 am - 8 pm  
Sunday: 11 am - 7 pm