

Cold Weather Layering for Comfort and Performance

- What you choose to wear while pursuing your favorite outdoor activities will have a great effect on how comfortable and enjoyable your experience will be.
- Choosing clothing that does not absorb water or perspiration dramatically increases your comfort.
- Your body's perspiration production along with the elements of rain, wind, cold, and snow are the enemies of your ability to regulate your body temperature.
- By choosing a layered approach to clothing that offers flexibility in a wide range of activities and weather conditions will be the difference between enjoyable comfort or misery, personal injury or worse.

The Basics of Layering:

Base layer

Keep your skin dry during activity and while at rest by wicking perspiration away from the skin to the insulation layer.

Insulation layer

Provides a thin, non-bulky boundary of warm air that surrounds your body during activity and while at rest while moving perspiration out to the shell layer.

Shell layer

Protects and regulates the boundary of warm air around the body by allowing your body's moisture vapors to escape and prevents entry of wind-chill, rain, and snow weather elements.

Accessories

Further protects the head, neck, hands, and feet that are sensitive to the effects of wind and cold.

With a basic knowledge of the characteristics of the individual layers, you can maximize comfort and performance while minimizing bulk and your risk of exposure.

ACCESSORIES LAYER

- *Grandma's advice*

Hats, Balaclavas, & Neck Gaiters...

- Toes cold? PUT YOUR HAT ON! Grandma was right. We lose significant amounts of body heat through our head and neck -- up to 50% in typical midwestern winter temperatures.
- The brain requires a lot of critical heat. Neck gaiters, hats, and hoods all help keep the brain warm avoiding the early stages of hypothermia and sluggish decision making while skiing.

Gloves, Mittens, Socks & Such...

- To keep your fingers nimble and preserve their ability to grip, wear windproof gloves with thin Polyester liners.
- Toes cold? Wear polyester liner socks and a pair of Acrylic or Wool socks.
- Toes feel squished? Try a lighter weight sock. Uninhibited circulation is the single best source of warmth for your feet!

Tips & Tricks...

- If you feel chilled - zip up your shell to stop the wind chill effects on your neck and chin.
- Add an additional layer of insulation to increase the heat retention in your body's core. Your vital organs need warmth. Cold fingers and toes are an obvious indicator that the core is not insulated enough.
- Conversely, if you are hot and sweating try ventilating your shell, remove your hat for a few moments, remove an insulating layer or slow your pace.
- Ventilate a little at a time so your layers have an opportunity to move the perspiration away from your skin so you don't chill that can cause muscle cramps.

With a little experimentation, layering offers a flexibility in comfort and safety that can't be beat. Your comfort is our business. At The Yachtsman we are a group of users who enjoy outdoor pursuits and can help you with more specific advice and information for your individual clothing and gear needs.

BASE LAYER

- *keep your skin dry*

The Need:

Perspiration is inevitable when you are working or playing in the cold. Your skin needs to stay dry in order for you to remain comfortable. The first component of layering is the long underwear base layer. Long underwear must perform two tasks:

1. Wick perspiration away from your skin for dryness.
2. Trap a layer of dry air next to your skin for warmth.

The Answer:

- Treated polyester fibers absorb virtually no water.
- Stays warm next to the skin even when wet.
- Fast moisture wicking and drying characteristics.
- Four optimal weights for any climate or activity.
- *Base* layer enables outer layers to perform better.
- The base layer contributes the most to your comfort.

Why *not* natural fibers?

Moisture is your enemy in cold weather; it leads to misery and hypothermia. Hypothermia is the body's inability to produce enough heat to stay warm and comfortable. Natural fibers possess some dangerous deficiencies in their ability to retain the body's warmth production:

- *Cotton* is a chilling fabric by nature that also has minimal thermal efficiency especially when wet.
- *Wool* has better thermal efficiency, but takes hours to dry and can be smelly and itchy.
- *Natural Silk* also has some thermal efficiency when wet but is more expensive and fussy to care for.

Natural fibers' lack of performance compared to that synthetics is what compromises your comfort and safety especially when the weather turns ugly.

INSULATION LAYER

- *warm and cozy*

The Need:

Since there is wide variety of cold weather activities to enjoy there is also a wide variety of insulation options to choose from. This is the layer that provides the greatest opportunity for versatility. The insulation layer needs to do two tasks:

1. Trap a boundary of air around the body for warmth.
2. Move perspiration from the base layer to the shell.

The Answer:

- Polyester clothing is most efficient for its weight.
- Polyester pile garments insulate even when wet.
- This layer yields the most warmth flexibility.
- Thin wicking layers are for aerobic activities.
- Thicker, loftier layers are for bitter cold activity.

Why synthetic fibers?

Polyester does not absorb moisture like natural fibers do, thus leaving you dryer and warmer in harsh wet and cold weather conditions.

The Insulation Family

Light Weight Insulation

Light weight wicking pile is for aerobic activities such as cold weather walking, running, and XC skiing.

Mid Weight Insulation

For cold weather activities such as alpine skiing, fishing, camping, hiking, and walking around town.

Heavy Weight Insulation

For sedentary or bitter cold situations.

Stuffable Insulation

Down or Synthetic Filled insulation that is very warm yet stuffs very small. Similar warmth as heavy pile insulation.

SHELL LAYER

- *keep the weather out*

The Need:

When it is windy, rainy, or snowing, keeping warm is a challenge without the right shell. Shells need to do two tasks:

1. Keep out the wind, snow, and rain.
2. Let out your perspiration that is produced.

The Answer:

Shells have demanding job. Keeping the outdoors outside and allowing your perspiration to continue to escape is accomplished through a combination of waterproof / breathable barriers and features.

- Water resistant - keeps out snow, drizzles.
- Water proof - keeps out day long down pours.
- Wind proof - eliminate the effects of wind-chill.
- Breathable - allows perspiration to escape.
- Ventilation - openings that vent heat quickly.

Well designed shells blend fabrics and features that provide flexibility and durability for the activities you enjoy. There are three high performance basics:

Light Weight Water Resistant Breathables

Great for running, cycling, warm weather day sailing, or simply as an everyday wind breaker.

Durable Water Resistant Breathables

For Alpine skiing or situations where abrasion resistance and breathability are of greater importance than total waterproofness.

Durable Water Proof Breathables

These shells are built to last. They are durable for longterm outdoor excursions as rainwear, camping, climbing, and skiing. Combine abrasion resistance with total waterproofness and you've got versatile protection for all seasons.