

## How Drysuits Work

We often hear paddlers ask whether drysuits are better, warmer, or more comfortable than wetsuits. On frigid spring whitewater streams in Maine, and along the coast, almost every experienced paddler we see is wearing a drysuit, and almost none are wearing wetsuits. This, in spite of the fact that drysuits cost more than wetsuits (usually *a lot* more), seems to provide a pretty clear answer. Of course it's a matter of opinion, and some paddlers prefer wetsuits, but they are in a distinct minority. (Read about the [pros and cons of wetsuits and drysuits.](#))

This post, then is for paddlers who are unfamiliar with drysuits. It describes what they are and how they work. It also explains why we think most paddlers should have one, and it acknowledges that they're not for everyone. We'd like to sell you a drysuit, but not if you don't need it.

### What's a Drysuit?

A drysuit covers you from your feet to your neck, and it really and literally keeps you dry even if you fall in the water. This is a lot different from rain gear. Fall in the water wearing rain gear, and you will be soaked in an instant, because it allows water to enter through all the openings.



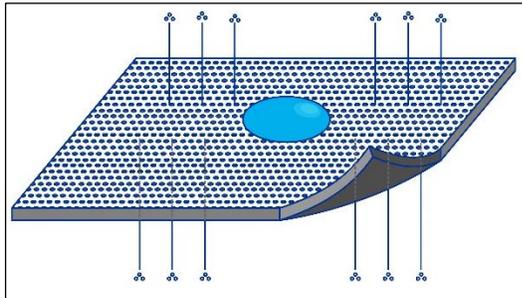
Neck gasket

A drysuit works because it has water-tight seals (also called gaskets) around the wrists and neck. These are made of stretchy latex rubber that hugs your skin. Some drysuits



Wrist gaskets

also have gaskets around your ankles, while others have waterproof socks sewn onto the ends of the legs. (Read more about [drysuit gaskets or seals.](#))



Breathable fabric allows water vapor from inside the suit to escape, while keeping liquid water out.

Drysuit fabric is waterproof, of course. On almost all modern suits, the fabric is also breathable. That means that moisture from perspiration inside the suit can escape right through the fabric, so you don't get wet from your own sweat. (Read more about [breathable drysuit fabric](#).)

The final key component of the drysuit is the zipper that lets you put it on and



Water-tight drysuit zipper

seal it up tight. This is a special waterproof design that's based on the air-tight zippers NASA developed for space suits. (Read more about [drysuit zippers](#).)

Most drysuits are one-piece garments. Some have separate tops and trousers that join together for a water-tight seal.

The one-piece style costs less and is more reliable, but the two-piece version is more flexible, allowing the user to wear the dry top or dry pants by themselves or together.

### The Importance of Staying Dry

Paddlers wear drysuits for comfort and safety. If you end up in the water – or doused with waves or spray – they keep everything except your head, hands, and possibly feet (if the suit doesn't have sewn-on drysocks) dry. Cold water steals heat from your body more than 20 times faster than air of the same temperature, so by keeping you dry, a drysuit also keeps you warmer.

If it were *just* a matter of being comfortable, you'd probably find a lot more paddlers wearing wetsuits, because hard-core paddlers are a hearty bunch and they're notoriously short on cash. But staying warm also means staying safe. Cold water can incapacitate you in just seconds. It makes it difficult to control your breathing, which can easily lead to drowning if you're in rough water. Within just minutes, you lose the ability to control your muscles, so getting back into an overturned kayak or canoe may prove impossible. Eventually, hypothermia might kill you, but the chances are high that you'll drown first, even if you're wearing a life jacket. (Watch this [video for dramatic exposure to the effects of cold water](#).)

By itself, a drysuit only keeps you dry, and that goes a long way toward conserving your body heat. But drysuits are purposely cut large so that you can wear layers of warm clothing underneath. These will stay dry even if you're in the water, keeping you much warmer and improving your comfort and your survival prospects to a great extent.

In contrast, wetsuits allow you to get wet. They do provide insulation that protects you from the cold water outside the suit, but the fact remains that cold water enters the suit, and you do not stay nearly as warm as in a drysuit. Almost every kayaker who started his career in a wetsuit has switched to a drysuit for both comfort and safety.

### Should You Have a Drysuit?

Hypothermia is a risk for anyone in water below 70°F. The colder the water, the more extreme its effects on the body. In water below 50°F, people quickly lose the ability to function effectively. (Read more about the [dangers of cold water](#).)

This means that anyone who paddles on cold water and expects to end up in the water should have the thermal protection of a drysuit or wetsuit. That applies to every whitewater paddler, including kayakers, canoeists, rafters and paddleboarders, because capsizes are common in whitewater and even the most accomplished paddler may occasionally fail to roll up successfully.

It also applies to sea kayakers who venture far from shore. While capsizes are relatively uncommon among skilled kayakers, weather can change unexpectedly, causing conditions to become rough with little warning.

Aside from whitewater paddlers and the more venturesome sea kayakers, are drysuits advisable? We believe they are for the majority of canoeists, paddleboarders and kayakers – even those who confine their paddling to relatively benign conditions. Here’s why:

**Everyone makes mistakes.** Even in the calmest conditions, people capsize, often for silly reasons, and there are a million of them: you might reach quickly for a camera and lose your balance; or a fish on your line might do something totally unexpected, or you might be startled by a wasp; or you might drop your paddle and reach a bit too far overboard for it; or ... you name it. If a “stupid mistake” hasn’t happened to you yet, it will. You *will* capsize. Wearing a drysuit is like using a seat belt in your car. Accidents are unlikely on any given trip, but over a lifetime of driving or paddling, the chances of a bad situation occurring are too great to ignore. Since you can’t predict which trip will be the one, you have to protect yourself all the time.

**You’ll paddle more.** If you’re a prudent paddler and you don’t own a drysuit, you don’t go paddling when it’s cold. You know it’s dangerous, and you know it’s uncomfortable. But if you have a drysuit, you can go paddling almost any time. Depending on where you live, this might mean a three or four more months of paddling every year during the “shoulder seasons,” or even paddling year-round.

**You’ll become a better paddler.** We know this sounds unlikely, but we’ve heard it from even experienced paddlers who have recently begun using a drysuit. Wearing a drysuit gives you confidence to paddle in conditions that seemed too intimidating before, because you’ll no longer be so concerned about capsizing. You’ll be able to paddle more aggressively and you’ll gain more experience in more challenging situations. You’ll be confident about leaning out on your paddle for a high brace or practicing your roll in new situations.

### **Who Doesn’t Need Thermal Protection?**

If all your paddling is done in conditions where hypothermia is not an issue, then you probably don’t need a wetsuit or drysuit. That means the water is perfectly comfortable for swimming. There are plenty of people who fit that description: folks who only take the kayak or paddleboard out on a glorious summer day at the beach or the cabin, when the water is fine and the sun is out, and there are plenty of other paddlers or swimmers around to help you if you tip over and can’t get back in. If you use your kayak or paddleboard as a kind of big pool toy, and you’re not pushing yourself in challenging conditions or going farther than you can easily swim to safety, you’ll probably be fine without thermal protection.

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Find answers to more [Frequently Asked Questions](#) on the Mythic Gear website.

[www.MythicDrysuits.com](http://www.MythicDrysuits.com)