MYTHIC GEAR

Stay Dry
Paddle More
Spend Less

Wetsuits Versus Drysuits

The Question Isn't "Which Is Better?" It's "Which is Better for You?"

Wetsuits and drysuits are kind of like cats and dogs: neither is "better," although they're certainly different. One is better in some respects, and not as good in others. And once you understand their relative advantages and disadvantages, it's a matter of deciding which one is better suited to your needs.

Drysuits (Mythic Gear photo)

(Just to be clear: we're talking primarily about paddlesports here, although many of the arguments apply to other surface-water sports like dinghy sailing and surfing. This is not meant to address the concerns of SCUBA divers.)

How they Work

Wetsuits are made of foamed neoprene rubber. This thick, spongy material contains thousands of tiny bubbles of nitrogen. The heat from your body warms the trapped gas, which acts like a buffer between you and the cold water outside the suit. Wetsuits allow water to enter, but contrary to popular belief, they do not work by trapping that water and using your body heat to warm it up. Water flushes in and out of a wetsuit too quickly to function as an insulating medium.

Drysuits are generally made of layers of nylon and plastic membranes that provide a waterproof barrier to keep you dry. Body heat transfers into water about 20 times faster than it does into air, so simply by keeping you dry, a drysuit goes a long way toward conserving your body heat. But inside a drysuit, you also wear insulating clothing. This traps air, which is warmed by your body heat, and so slows heat loss through the drysuit fabric.

Price

Drysuits cost a lot more than wetsuits. You can get an entry-level wetsuit for about $50, and a pretty good one for $150-250. The least expensive drysuit costs $250, and most cost around $1,000.

Functionality

Hands-down, drysuits keep you warmer. This is true whether you're wet from numerous brief immersions while playboating, or in the water due to a capsize. We're not aware of any empirical tests that compare their warmth-conserving performance, but one need only go boating in equally cold water in the two types of garments to be quickly convinced. When wearing a drysuit, you can stay *warm* when immersed in cold water. In a wetsuit, you're cold – just not as cold as you'd be without it.

"Shorty" and full-length wetsuits (Photo courtesy David Corby, GNU Free Documentation License)

Comfort
This is a more subjective quality. Some people find the neck gaskets on drysuits uncomfortable, and that discomfort can range from mild to panic-inducing. On the other hand, wetsuits tend to bunch up uncomfortably at the knees and elbows, where drysuits behave more like "regular" clothing.

When paddling, the thin nylon sleeves of a drysuit are somewhat less constricting than the neoprene sleeves of a full-length wetsuit. Paddlers who wear farmer John (i.e., sleeveless) wetsuits usually also wear a semi-dry top or splash jacket, which have about the same effect on arm and shoulder mobility as a drysuit.

Buoyancy and Swimming
Drysuits can be somewhat awkward to swim in, due to the trapped volume of air that always rises to the highest point inside the suit. The buoyancy of a wetsuit is evenly distributed and does not shift, making swimming more natural.

Ease of use
Lacking gaskets and waterproof zippers, wetsuits are easier and quicker to put on than drysuits *when they're dry*. When they're wet, on the other hand, wetsuits require a good deal of tugging to put on and take off, while drysuits slip on and off easily.

Failure performance
A torn wetsuit loses little of its insulating performance, except immediately over the part of the body exposed by the tear. If a torn drysuit permits water to enter and saturate the undergarments, then the suit's insulating qualities are lost. In most cases, however, only a small amount of water enters, so the drysuit retains most of its insulating properties.

The fear of a damaged drysuit filling with water and "dragging you down" is unfounded. The water inside a torn drysuit is no denser than the water outside it, so it has no effect on your buoyancy. On the other hand, a drysuit filled with water will certainly be awkward to swim in, and it might make it difficult to re-enter a boat following a capsize. But very few drysuit tears are so extensive that they allow a great deal of water to enter, and we are not aware of *any* instances in which a paddler drowned due to a water-filled drysuit.

Care, Repairs and Maintenance
Drysuits gaskets are somewhat fragile, and they degrade over time, typically requiring replacement every 3-5 years unless mechanical damage forces replacement sooner. Replacing a gasket is a bit fussy, but it's not terribly difficult and most paddlers do it themselves. Neck gaskets typically cost $35-50, wrist gaskets $25-35 a pair, and a tube of Aquaseal adhesive/sealant about $8. Professional replacement can more than double the cost. Fabric tears can generally be repaired with a swatch of fabric, some simple stitching, and a bit of Aquaseal. Although the waterproof zippers on drysuits have excellent durability, a damaged zipper is expensive to replace and generally requires the services of a drysuit expert.

Wetsuits have no maintenance components comparable to drysuit gaskets. Aquaseal suffices to repair most tears. The zippers are not expensive or technical, as on drysuits, and replacement is within the capabilities of many seamstresses accustomed to working with heavy materials.

Because of the delicacy of gaskets and the high cost of replacing a damaged zipper, one must treat drysuits with greater care when storing and transporting them.

Odor
Wetsuits have a tendency to stink, and the older they get, the worse they smell. Drysuits do not exhibit a similar drawback.

Summary
The table summarizes the arguments above, with a checkmark representing the superior performance for each quality in the left column. Where neither is clearly superior, no checkmark appears.

	Wetsuits	Drysuits
Price	✓	
Functionality		✓
Comfort		
Swimming	✓	
Ease of Use		
Failure Performance		
Care/Repairs/Maintenance	✓	
Odor		✓

Although wetsuits have three checkmarks to drysuits' two, this does not mean that wetsuits are "better" than drysuits, for the performance qualities are not all of equal importance. You have to consider your own priorities and the conditions you paddle in. For most paddlers, the decision narrows down to the tradeoff between price and functionality. Only you can decide whether the superior warmth and safety of a drysuit justifies its higher cost.

