Use The 100 Degree Rule

At what temperature should you wear a wetsuit or drysuit? Below is a chart to help you decide.

A good rule of thumb to follow for safe waterskiing is the "100 degree rule." This means that the air temperature plus the water temperature should be greater than or equal to 100 degrees F to be skied comfortably. You can certainly ski in temperatures lower than the combined 100, however, most people feel that it becomes uncomfortable at that point.

Participating in water sports in cold water can be fun if proper precautions are taken to protect your body. Failing to do so can result in frostbite or hypothermia. To better prepare youself for dip in cooler waters reference my article "Waterskiing in Cold Weather/Water" - Don't be dumb and ski numb. Take preventive measures and know the signs of hypothermia and frostbite.

Wetsuit - Drysuit Temperature Chart

Water Temperature (farenheit)	**How the Water Feels to the Body**	**What Type of Suit to Wear**
80 degrees +	Bath Water	None Needed
72-80 degrees	Comfortable	Wetsuit Trunks or Shorty or Sleeveless Shorty
65-72 degrees	Cool at First	Short John Arms / Full Leg Wetsuit
60-65 degrees	Very Chilly	Full Wetsuit or Drysuit
50-60 degrees	Extremely Chilly	Full Wetsuit or Drysuit or Short John Arms / Full Leg Wetsuit with Jacket
50 degrees and below	May Cause Shock - use caution	Full Wetsuit or Drysuit with gloves, hood, and booties (if applicable)

How To Avoid Hypothermia

If you are dedicated enough to ski in cold water temperatures, be sure to dress properly. The most important part of your attire is your wetsuit, put preferably a drysuit. The two differ in the way that a wetsuit allows water into your suit but insulates and warms it once it enters. A drysuit does not allow any water in because it has rubber seals that fit snugly around the neck, wrists, and ankles. Be sure to use gloves and booties when appropriate, and maybe even a hood.

Keep in mind wearing a drysuit can cause you to tire easier and quicker than normal. You are more restricted with your movements because of the bulk, therefore, it takes extra effort to maneuver.

To help you determine if you should wear a wetsuit or drysuit, use this Wetsuit - Drysuit Temperature Chart.

A good rule of thumb to follow for safe waterskiing is the "100 degree rule." This means the air temperature plus the water temperature should be greater than or equal to 100 degreesF to be skied comfortably.

You can certainly ski in temperatures lower than the combined 100, however, most people feel that it becomes uncomfortable at that point.

HYPOTHERMIA

One of the biggest things you have to watch out for in cold water skiing is hypothermia. Hypothermia is a general cooling of the entire body. The inner core of the body is chilled so the body cannot generate heat to stay warm. In cold conditions, your body will concentrate keeping your torso warm and put less emphasis on getting blood to your extremities.

Water conducts heat away from our bodies 25 times faster than air. Also, the winter months often bring windier conditions than normal, creating a wind chill factor. And to add to this wind chill, you also have the speed of the boat creating stronger winds. The windier it is, the faster heat is conducted away from your body. This can cause the body temperature to drop quickly. This wind chill table gives a graphic representation of the relationship between ambient air temperature and wind velocity.

Several things can lead to hypothermia. Of course, the number one thing we are talking about here is cold temperatures. Amazing enough, a temperature of just below the normal body temperature of 98.6 degrees F can cause hypothermia. Others things that can increase your chances of getting hypothermia are insufficient clothes, dehydration, exhaustion, recent consumption of alcohol, and lack of food nutrition.

Things to be aware of when acknowledging a person is suffering from hypothermia are impaired motor skills, pale skin, drowsiness, confusion, slurred speech and uncontrollable shivering. If these symptoms are evident take measures to reduce heat loss. If an extra change of dry clothes is available have the person change into them immediately. It's always smart to pack an extra set in cold skiing conditions. If no change is available, cover the person completely with other means of layers like towels, sweatshirts, or hats. A dry life vest will also do. Have the person move around to increase blood flow to warm the body. Position the person in the boat as to where they are shielded from wind.

Give the person non-caffeinated, non-alcoholic, hot liquids, sweets, carbohydrates, and proteins and fats. Avoid nicotine. Put the person in front of a heat source. If none is available, with the engine off, open the engine cover to absorb heat generated. Share the body heat of other people on board by grouping together under towels.

FROSTBITE

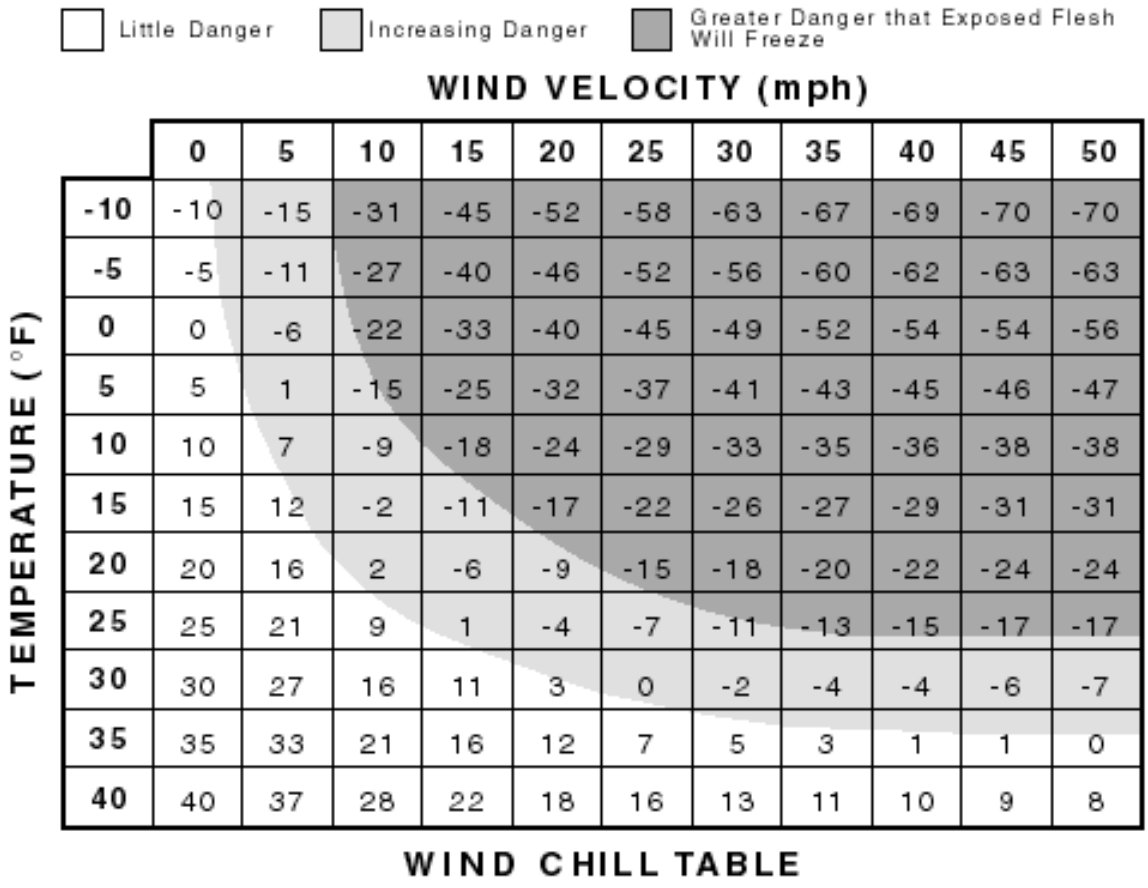
The second biggest thing to watch out for in cold water skiing is frostbite. This is the freezing of some part of your body. It is distinguishable by the hard, pale, and cold quality of the skin that has been exposed to the cold over an extended period of time. The area is likely to be numb, although there is likely a sharp, aching pain. As the area thaws, the flesh becomes red and painful. Any part of the body may be subject to frostbite, but the hands, feet, nose and ears are most vulnerable.

The first sign of frostbite is a prickling sensation followed by numbness and hardening of the skin. Once this occurs, shelter the victim from the cold and wind and remove any wet clothing. Unless you are to a place where you can keep the frostbitten area warm and thawed, do not rub the affected area. Refreezing can cause further tissue damage. Huddle up with other people on the boat to share body heat until you reach shore.

MORE

Another tip - bring a big cooler full of hot water. It is great for soaking gloves and headbands before a run and for a quick dunk of hands and feet both before and after hitting the water. Lots of towels to keep dry help as well (tip submitted by Ken Cram / John Hirsch).

For further study try the book Hypothermia, Frostbite, and Other Cold Injuries by Wilkerson. This compact, comprehensive book covers hypothermia causes and effects, and tells how to prevent, recognize and treat it.



TEMPERATURE (°F)	0	5	10	15	20	25	30	35	40	45	50
-10	-10	-15	-31	-45	-52	-58	-63	-67	-69	-70	-70
-5	-5	-11	-27	-40	-46	-52	-56	-60	-62	-63	-63
0	0	-6	-22	-33	-40	-45	-49	-52	-54	-54	-56
5	5	1	-15	-25	-32	-37	-41	-43	-45	-46	-47
10	10	7	-9	-18	-24	-29	-33	-35	-36	-38	-38
15	15	12	-2	-11	-17	-22	-26	-27	-29	-31	-31
20	20	16	2	-6	-9	-15	-18	-20	-22	-24	-24
25	25	21	9	1	-4	-7	-11	-13	-15	-17	-17
30	30	27	16	11	3	0	-2	-4	-4	-6	-7
35	35	33	21	16	12	7	5	3	1	1	0
40	40	37	28	22	18	16	13	11	10	9	8

How cold is it outside? Simply knowing the temperature will not tell you enough about conditions outside to enable you to dress sensibly for all winter weather conditions, since the speed of the wind also has an effect. For example, if the temperature is 5 degrees above freezing and the wind is blowing at 15 miles per hour (25 kilometers per hour), the cooling effect on your body is equivalent to the temperature of -25 degrees F (-32 degrees C) in still air. Exposed flesh quickly freezes under such conditions, since the combined effect of the wind and the temperature determines the rate at which your body loses heat.

This combined effect is commonly called the "wind chill factor" or the "wind chill index." The table on this page shows that the wind chill factor increases with the wind speed, up to a wind speed of 40 miles per hour (67 kilometers per hour). Above velocities of 40 miles per hour, any increase in wind speed has little additional effect on the body's loss of heat. The wind chill table can serve as a useful guide in determining how much protective clothing to wear for winter activities. The equivalent temperatures given on the table are valid only if you are wearing dry clothing; **if your clothing is wet, evaporation of that moisture will greatly increase the chill factor.**

To use the chart, find the approximate temperature on the left-hand side of the chart. Read across from the temperature reading and down from the wind velocity reading. The number which appears at that intersection is the equivalent temperature determined by the wind chill factor.