Wind Chill Chart

Wind (mh) \ Temperature	40	35	30	25	20	15	10	5	0	-5	-10	-15	-20	-25	-30	-35	-40	-45
5	36	31	25	19	13	7	1	-5	-11	-16	-22	-28	-34	-40	-46	-52	-57	-63
10	34	27	21	15	9	3	-4	-10	-16	-22	-28	-35	-41	-47	-53	-59	-66	-72
15	32	25	19	13	6	0	-7	-13	-19	-26	-32	-39	-45	-51	-58	-64	-71	-77
20	30	24	17	11	4	-2	-9	-15	-22	-29	-35	-42	-48	-55	-61	-68	-74	-81
25	29	23	16	9	3	-4	-11	-17	-24	-31	-37	-44	-51	-58	-64	-71	-78	-84
30	28	22	15	8	1	-5	-12	-19	-26	-33	-39	-46	-53	-60	-67	-73	-80	-87
35	28	21	14	7	0	-7	-14	-21	-27	-34	-41	-48	-55	-62	-69	-76	-82	-89
40	27	20	13	6	-1	-8	-15	-22	-29	-36	-43	-50	-57	-64	-71	-78	-84	-91
45	26	19	12	5	-2	-9	-16	-23	-30	-37	-44	-51	-58	-65	-72	-79	-86	-93
50	26	19	12	4	-3	-10	-17	-24	-31	-38	-45	-52	-60	-67	-74	-81	-88	-95
55	25	18	11	4	-3	-11	-18	-25	-32	-39	-46	-54	-61	-68	-75	-82	-89	-97
60	25	17	10	3	-4	-11	-19	-26	-33	-40	-48	-55	-62	-69	-76	-84	-91	-98

Frostbite times — 30 minutes — 10 minutes — 5 minutes

To calculate the wind chill using the chart above, find the row for the current wind speed, then locate the place where the row intersects the column for the current temperature.

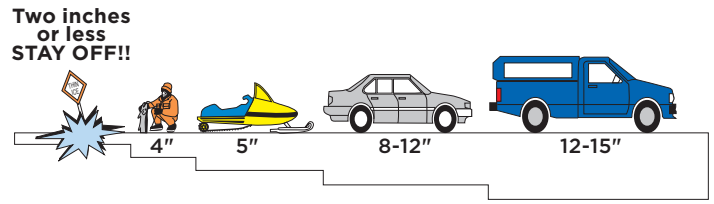
Beaufort Scale

The Beaufort Scale is a system for estimating wind strengths without the use of instruments, based on the effects wind has on the physical environment.

Beaufort no.	Explanatory titles	Effect of wind on physical environment	Miles per hour
0	Calm	Water like a mirror, smoke rises vertically	Less than 1
1	Light air	Occasional ripple on lake, smoke drifts, weather vane is inactive	1 - 3
2	Light Breeze	Small ripples appear on lake, wind felt on face, leaves rustle, flag moves but does not extend	4 - 7
3	Gentle Breeze	Leaves and twigs in constant motion	8 - 12
4	Moderate Breeze	Raises dust, loose paper, small branches are moved	13 - 18
5	Fresh Breeze	Trees begin to sway	19 - 24
6	Strong Breeze	Large branches in motion, open wires begin to whistle, umbrellas used with difficulty	25 - 31
7	Moderate Gale	Large trees sway, difficult to walk	32 - 38
8	Fresh Gale	Twigs break off trees, walking into the wind is very difficult	39 - 46
9	Strong Gale	Slight damage to roofs and homes	47 - 54
10	Whole Gale	Large trees are uprooted, building damage is considerable	55 - 63
11	Storm	Extensive widespread damage	64 - 73
12	Hurricane	Extreme destruction	Above 74

Ice Safety Tips

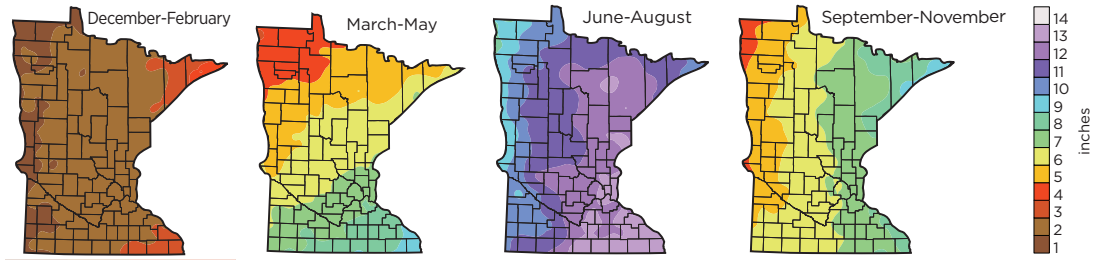
- Avoid alcoholic beverages
- Don't drive on ice at night
- Avoid pressure ridges, channels, and areas with current
- Warn your children about the dangers of thin ice
- Carry two large nails to use as ice picks if you fall through



Recommended Minimum Ice Thickness

Ice thickness graphic courtesy Minnesota Department of Natural Resources, used with permission

Normal Precipitation



State Climatology Office – DNR Waters, December, 2002

National Weather Service Heat Index Chart

Relative Humidity % \ Temperature (°F)	80	82	84	86	88	90	92	94	96	98	100	102	104	106	108	110
40	80	81	83	85	88	91	94	97	101	105	109	114	119	124	130	136
45	80	82	84	87	89	93	96	100	104	109	114	119	124	130	137	
50	81	83	85	88	91	95	99	103	108	113	118	124	131	137		
55	81	84	86	89	93	97	101	106	112	117	124	130	137			
60	82	84	88	91	95	100	105	110	116	123	129	137				
65	82	85	89	93	98	103	108	114	121	128	136					
70	83	86	90	95	100	105	112	119	126	134						
75	84	88	92	97	103	109	116	124	132							
80	84	89	94	100	106	113	121	129								
85	85	90	96	102	110	117	126	135								
90	86	91	98	105	113	122	131									
95	86	93	100	108	117	127										
100	87	95	103	112	121	132										

Likelihood of Heat Disorders with Prolonged Exposure and/or Strenuous Activities

Caution — Extreme Caution — Danger — Extreme Danger