

The cooling sensation caused by the combined effect of temperature and wind is called wind chill. Exposed skin at very cold wind chills can freeze in only minutes. The risk of frostbite increases rapidly when wind chill values go below -27.



### **SEVEN STEPS TO COLD WEATHER SAFETY**

1. Check the weather forecast before planning outdoor activities.
2. Dress in layers with a wind-resistant outer layer, wear a hat, mittens, and scarf or face mask when it is cold.
3. Limit your time outdoors when it is very cold.
4. Seek shelter – get out of the wind.
5. Stay dry.
6. Keep active to stay warmer.
7. Watch for signs of frostbite – numbness and white patches on skin.

Weather forecasts: [www.weather.gc.ca](http://www.weather.gc.ca)

Wind chill information site:

[www.windchill.ec.gc.ca](http://www.windchill.ec.gc.ca)



## WIND CHILL CHART

		Air Temperature (°C)											
		$T_{air}$	0	-5	-10	-15	-20	-25	-30	-35	-40	-45	-50
Wind Speed (km/h)	$V_{10}$	0	-5	-10	-15	-20	-25	-30	-35	-40	-45	-50	-55
	5	-2	-7	-13	-19	-24	-30	-36	-41	-47	-53	-58	-58
	10	-3	-9	-15	-21	-27	-33	-39	-45	-51	-57	-63	-63
	15	-4	-11	-17	-23	-29	-35	-41	-48	-54	-60	-66	-66
	20	-5	-12	-18	-24	-30	-37	-43	-49	-56	-62	-68	-68
	25	-6	-12	-19	-25	-32	-38	-44	-51	-57	-64	-70	-70
	30	-6	-13	-20	-26	-33	-39	-46	-52	-59	-65	-72	-72
	35	-7	-14	-20	-27	-33	-40	-47	-53	-60	-66	-73	-73
	40	-7	-14	-21	-27	-34	-41	-48	-54	-61	-68	-74	-74
	45	-8	-15	-21	-28	-35	-42	-48	-55	-62	-69	-75	-75
	50	-8	-15	-22	-29	-35	-42	-49	-56	-63	-69	-76	-76
	55	-8	-15	-22	-29	-36	-43	-50	-57	-63	-70	-77	-77
	60	-9	-16	-23	-30	-36	-43	-50	-57	-64	-71	-78	-78
	65	-9	-16	-23	-30	-37	-44	-51	-58	-65	-72	-79	-79
70	-9	-16	-23	-30	-37	-44	-51	-58	-65	-72	-80	-80	
75	-10	-17	-24	-31	-38	-45	-52	-59	-66	-73	-80	-80	
80	-10	-17	-24	-31	-38	-45	-52	-60	-67	-74	-81	-81	

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| <ul style="list-style-type: none"> <li><span style="display: inline-block; width: 15px; height: 10px; background-color: #e0f2f1; border: 1px solid #ccc; margin-right: 5px;"></span> Low risk of frostbite</li> <li><span style="display: inline-block; width: 15px; height: 10px; background-color: #bbdefb; border: 1px solid #ccc; margin-right: 5px;"></span> Moderate risk</li> <li><span style="display: inline-block; width: 15px; height: 10px; background-color: #90caf9; border: 1px solid #ccc; margin-right: 5px;"></span> High risk in 30 minutes of exposure</li> </ul> | <ul style="list-style-type: none"> <li><span style="display: inline-block; width: 15px; height: 10px; background-color: #64b5f6; border: 1px solid #ccc; margin-right: 5px;"></span> Very high risk in 5 to 10 minutes of exposure</li> <li><span style="display: inline-block; width: 15px; height: 10px; background-color: #42a5f5; border: 1px solid #ccc; margin-right: 5px;"></span> Severe risk in 2 to 5 minutes of exposure</li> <li><span style="display: inline-block; width: 15px; height: 10px; background-color: #319795; border: 1px solid #ccc; margin-right: 5px;"></span> Extreme risk in 2 minutes or less of exposure</li> </ul> |
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$V_{10}$  = wind speed measured 10 metres above ground level