# SAFETY MEMO

January 23, 2023 - Black Ice







## **Background**

Black ice is a weather phenomenon in which sheets of water freeze on a surface smooth enough to seem transparent. This is highly dangerous especially on roads and walkways that are areas of high traffic. During the early parts of winter, it is far more likely for black ice to form on these surfaces as there hasn't been enough time to adequately salt the roads and walkways to prevent ice from forming.

It is integral that we pay attention to road conditions as anytime someone must drive or walk to a work site, they run the risk of being injured or even killed due to black ice.

#### Risk

In Canada, during the winter of 2017,approximately 30% of all car accidents occur during snowy conditions<sup>1</sup>. The areas that black ice forms on most often are also highly dangerous. Bridges and mountainous road surfaces are highly susceptible as bridges are often damp and mountain areas can drop very low in temperatures.

It should also be noted that while salt can be used to prevent the ice from forming, salt isn't effective below -18C as it will also freeze.



Figure 1: Example of black ice on the left side of the road<sup>2</sup>

### **Precautions**

Use these tips when driving in a car on black ice<sup>3</sup>:

- You should not turn the steering wheel in a sharp manner
- Turn your steering wheel into the skid<sup>2</sup>
- Do not brake as that will cause you to slide
- Remove your foot from the accelerator to reduce your speed and gently stop the car

#### When walking4:

- If you think you may be walking on black ice walk like a penguin. This lowers the body's centre of gravity and makes your steps smaller
- If you do start to fall, protect your head and turn your body to land on your side
- If you fall to the ground, stay in down and do not move, do a self check for injuries before getting up
- If you cannot stand on your own, call for help using your cellphone or yell loudly for help



Figure 2: How to walk on black ice4

<sup>&</sup>lt;sup>4</sup> North End Breezes. (Dec 30, 2020). 6 tips for dealing with black ice. Retrieve from https://northendbreezes.com/6-tips-for-dealing-with-black-ice-2/



<sup>&</sup>lt;sup>1</sup> RCMP. (Dec 17, 2019). Just the facts – winter driving. Retrieved from https://www.rcmp-grc.gc.ca/en/gazette/just-the-facts-winter-driving

<sup>&</sup>lt;sup>2</sup> Erie Insurance. (Jan 30, 2019). Driving on black ice: what you need to know. Retrieved from <a href="https://www.erieinsurance.com/blog/black-ice-formed">https://www.erieinsurance.com/blog/black-ice-formed</a>

<sup>&</sup>lt;sup>3</sup> Fraser Valley Snow Removal. (Dec 2, 2019). Black ice is one of winter's biggest dangers. Retrieved from <a href="https://fvsr.ca/black-ice-is-one-of-winters-biggest-dangers/">https://fvsr.ca/black-ice-is-one-of-winters-biggest-dangers/</a>