

# WINTER LIVING GUIDE

Created December 2023 Updated November 2024













## WINTER IN HOKKAIDO

Hokkaido is cooler and has less rainfall than the southern regions of Japan, with an average annual temperature of 5-10 °C and an average annual precipitation of 700 -1,700 mm. It is especially cold in winter. The average daily temperature in the coldest month is never higher than 0°C, and the Sea of Okhotsk is covered with drift ice from January to February, making Hokkaido truly a "snowy, cold weather region."

Source: "Hokkaido Data Book 2023" Hokkaido Government

#### **DURATION OF WINTER**

Winter in Hokkaido is from December to February, but even in late autumn and early spring temperatures can drop below freezing, and it can snow.



## **TEMPERATURE / SNOWFALL**

Temperature and snowfall vary depending on where you live. For the major cities you can reference the data below

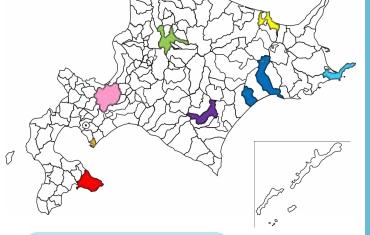
CITY	DEC		JAN		FEB	
Wakkanai	-4.2°C 0.	1°C	-6.8°C	<b>-2.7</b> °C	<b>-7.1°</b> C	<b>-2.5</b> ℃
Abashiri	-5.9°C <b>0</b> .	<b>7</b> ℃	-9.4°C	-2.4°C	-10.1°C	<b>-2.5</b> °C
Asahikawa	- <b>7</b> .9°C - <b>0</b>	.8°C	<b>-12.3</b> °C	<b>-3.5</b> °C	<b>-12.7</b> °C	<b>-2.1</b> °C
Nemuro	-3.6°C <b>2</b> .	1°C	-6.9°C	-1.1°C	- <b>7.6</b> °C	-1.6°C
Kushiro	-7.1°C 2.	<b>5</b> ℃	-10.4°C	-0.6°C	-9.9°C	-0.4°C
Obihiro	-8.9°C 1.	1°C	<b>-13.7</b> °C	-1.9°C	<b>-12.6°</b> ℃	-0.6°C
Sapporo	-4.1°C 2.	1°C	- <b>7</b> .0°C	-0.6°C	-6.6°C	0.1°C
Muroran	-1.8°C <b>2</b> .9	9°C	-4.2°C	<b>0.3</b> °C	-4.1°C	<b>0.5</b> °C
Hakodate	-3.5°C 3.	<b>3</b> °C	- <b>6.2</b> ℃	<b>0.7</b> °C	-5.9°C	<b>1.5°</b> C

Blue: Monthly Average Low Temp Red: Monthly Average High Temp

CITY	SNOWFALL YEARLY AVERAGE		
Wakkanai	129 cm		
Abashiri	90 cm		
Asahikawa	125 cm		
Nemuro	43 cm		
Kushiro	32 cm		
Obihiro	52 cm		
Sapporo	137 cm		
Muroran	49 cm		
Hakodate	91 cm		

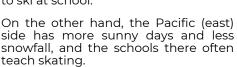


#### \*Climate Normal Values from Japan Meteorological Agency's



#### **DID YOU KNOW?**

The Japan Sea (west) side of Hokkaido has many cloudy and snowy days, and the amount of snowfall is high. Students there are often taught how to ski at school.



Even within the same Hokkaido, there are different climates!





<sup>&</sup>quot;Statistical Period 1981-2010 Data"



## PREPARING FOR BLIZZARDS



WHAT IS A BLIZZARD?

#### **ABOUT BLIZZARDS**

#### WHAT IS A BLIZZARD?

A blizzard is a strong windstorm accompanied by snow.

The winds blow the falling snow and the accumulated snow up into the air, leading to low visibility (whiteout) conditions.

Wind-driven snow can also accumulate in areas blocked by buildings, cars, and other structures, creating snowdrifts.



## WHEN ARE BLIZZARDS LIKELY TO OCCUR?

Blizzards often occur during the passage of a well-developed low-pressure system or a strong winter pressure pattern. Viewed on a weather map, the isobars are spaced closer together.

Another characteristic of blizzards is that wind strength and visibility can change rapidly when a low-pressure system is moving quickly, or in areas where the terrain is suddenly open.

Even on days when there is wind yet it is sunny, you cannot let your guard down. Sunny weather can turn into a blizzard in an instant, so be careful of sudden changes in the weather.

#### TYPES OF DAMAGE CAUSED BY BLIZZARDS



#### **SNOWDRIFTS**

- Driving can become very dangerous, and your car may get stuck even if there is just 20 cm of accumulated snow.
- In homes, if the air supply or exhaust vents of FF-type heaters, etc. are blocked, there is a risk of carbon monoxide poisoning. The front door may also become blocked by snow and become difficult to open.



## DIFFICULTY WALKING DUE TO STRONG WINDS AND POOR VISIBILITY

- Strong winds can make it difficult to walk straight. Snow can also make it difficult to see in front of you, causing you to lose your sense of direction and place.
- Additionally, poor visibility makes it difficult for drivers to see pedestrians, making it dangerous to walk along roads.



#### FLYING DEBRIS DUE TO STRONG WINDS

• Objects such as signs or roofs can be sent flying through the air if there are strong enough winds.



#### **POWER OUTAGES**

- Power outages may occur when power lines are cut due to snow buildup, strong winds, or flying debris, meaning you will be unable to use lights or heating.
- Repair work may not be possible until the weather improves, resulting in prolonged power outages.

Source: "Are you ready? Preparing for Blizzards" Hokkaido Government



## PREPARING FOR BLIZZARDS



#### **BLIZZARD RELATED DISASTERS IN HOKKAIDO**

## **BLIZZARD RELATED DISASTERS IN HOKKAIDO (EXAMPLES)**

In Hokkaido, blizzard related disasters occur regularly. Below are some examples of disasters that have occurred in Hokkaido in the past.

#### 1~3 FEB 2001 EMBETSU/TESHIO AREA

Approximately 110 cars stranded, over 200 people evacuated

23~24 FEB 2008 CHITOSE NAGANUMA

Approximately 300 cars stranded, 5 people injured

5~6 JAN 2011 ERIMO

43 cars stranded, over 100 people evacuated

26~27 NOV 2012 MURORAN / NOBORIBETSU AREA

Approximately 55,000 homes lost power due to the collapse of power transmission towers, etc.

15~16 FEB 2012 WAKKANAI / HORONOBE AREA

Approximately 150 cars stranded

21 FEB 2012 OMU

12-vehicle multiple collision accident, 3 injured

2~3 MAR 2013 NAKASHIBETSU / YUBETSU AREA

More than 500 cars stranded in Abashiri / Nemuro region, 9 fatalities

Source: "Are you ready? Preparing for Blizzards" Hokkaido Government

## **BLIZZARD RELATED DISASTERS IN HOKKAIDO (VIDEOS)**

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To better understand the kind of disasters caused by blizzards, you can watch videos of actual footage from past disasters. Please note that the videos include footage of accidents at the moment of impact, etc., so please view at your own discretion.

#### STRANDED (SNOWDRIFTS)







www2.nhk.or.jp/archives/movies/? id=D0026010408\_00000

This is a news video about the above blizzard disaster from 2-3 of March 2013 in Nakashibetsu Town, Yubetsu Town, etc., from the NHK Archives.

#### **MULTIPLE COLLISION ACCIDENT**







#### www.youtube.com/watch?v=nAkY20EQ1OM

This is a traffic safety education video, "Actual Conditions of Traffic Accidents During Blizzards and Poor Visibility," created by the Hokkaido Police. It contains footage from the above blizzard disaster from 23-24 of February 2008 in Chitose City and Naganuma Town.



## PREPARING FOR BLIZZARDS



#### **ARE YOU READY?**

#### TO AVOID DAMAGE FROM BLIZZARDS







- Damage caused by storms and snowstorms is especially common when the weather suddenly changes from clear to bad.
- If you hear that bad weather is predicted on TV or radio, don't lower your guard, even if the weather is good at that moment, and be sure to check the latest weather and road information in advance.
- If a blizzard is predicted, try to avoid going out.

Japan Meteorological Agency (JMA)

www.jma.go.jp/jma/ kokusai/multi.html



Hokkaido Disaster Prevention Portal

> www.bousaihokkaido.jp/



Safety tips (APP)

www.jnto.go.jp/safety -tips/eng/app.html





BE EXTRA
CAREFUL IF...

If the Japan Meteorological Agency releases information using the phrase "A blizzard that occurs once every few years" or "Please refrain from going out," be extremely cautious!

#### PREPARE FOR BLIZZARDS ON A DAILY BASIS

#### TO STAY SAFE AT HOME...

- Pay attention to weather information, and avoid going out if blizzards are predicted.
- If you are using an FF-type heater, etc., take care to prevent the air supply and exhaust vents from getting blocked by snow.
- Prepare the following items in your home in case there is a power outage or you are unable to leave your home for an extended period of time.







PORTABLE RADIO



COLD WEATHER GEAR



PORTABLE STOVE, FUEL



EMERGENCY FOOD, DRINKING WATER

#### IF YOU ABSOLUTELY HAVE TO DRIVE...

- In case your car becomes stranded due to sudden changes in weather, etc., prepare the "Things to prepare before driving on winter roads" listed on page 13 of this guide. Also, make sure you have enough fuel in the tank.
- If visibility becomes poor while driving due to wind and snow, wait for the weather to improve at a nearby roadside station or convenience store.
- Please check page 16 of this guide for information on what to do and what precautions to take if your car becomes stuck / stranded.





## STAYING SAFE AT HOME

#### **HOW TO SAFELY USE YOUR HEATER**

Heaters are essential to life in Hokkaido, but incorrect use of gas and kerosene heaters can lead to accidents. Here are six points to keep you safe and warm this winter.

## INSPECT YOUR HEATER BEFORE YOU FIRST USE IT

Has your oil/kerosene heater been collecting dust for the past 6 months? If you turn your heater on without performing the proper safety check, this could lead to fire or accident. Be sure to inspect and clean your heater thoroughly before using your heater for the first time this season.



## **CHECK HOW TO REFILL KEROSENE, ETC.**

There are many different ways to refill gas and kerosene heaters, depending on the make and model. Always be sure to check the instruction manual. Also, keep an eye on your fuel levels throughout the winter so you don't get caught in a blizzard with an empty fuel tank!



## **DON'T USE IT NEAR ANYTHING FLAMMABLE**

Please be careful not to place anything flammable, such as curtains, bedding, etc., near the heater, as this may cause a fire. Also, please do not hang laundry around or on top of the heater, as laundry that has become lighter in weight after drying may fall onto the kerosene heater and cause a fire.



## VENTILATE REGULARLY

Ventilation is required for oil-burning heaters and such to properly burn fuel by replenishing the air (oxygen) used in combustion with outside air. Inadequate ventilation in the room can lead to carbon monoxide poisoning. Please regularly open windows etc. to ventilate the room while using the heater.



## INSPECT THE AIR SUPPLY / EXHAUST VENTS

If snow accumulates around your home, the air supply and exhaust vents (equipment that supplies the air necessary for gas combustion, and releases exhaust fumes outdoors) may become blocked. Check the vents regularly and be sure to clear any snow that is blocking them.



#### TURN IT OFF BEFORE SLEEPING OR GOING OUT

Unforeseen accidents can occur when your heater is left unattended. In any situation where you can't properly monitor your heater, turn it off. Also, if you use an electric heater, be sure to remove the plug from the outlet to be extra safe.





This page was made using information from the Japan Industrial Association of Gas and Kerosene Appliances (JGKA) website. On the website, you can see information regarding the correct and safe usage of gas and oil equipment.

https://www.jgka.or.jp/gasusekiyu riyou/index.html (Japanese language only)







There are many ways to warm up a room other than a heater. We will introduce simple insulation methods and tips that anyone can use to stay warm indoors during the winter months.

#### INSULATING THE WINDOWS

In the winter, heat from inside can escape through the windows. You can improve the insulation performance of your windows with just a few simple changes!

#### **CHANGE TO THICK OR DOUBLE LAYER CURTAINS**

This prevents heat from escaping through the window. You can also open the curtains when the sun is shining so that the sun's heat can warm up the room, and close them as soon as the sun goes down to keep the room warm.

#### ATTACH A HEAT INSULATING SHEET, ETC.

You can get insulating effects by affixing bubble-filled cushioning material or insulation sheets to the windows.

#### PLUG ANY GAPS OR CRACKS

Cold air can enter a room through gaps in windows and doors. You can prevent the outside air from coming in with products such as "gap tape" (sukima tape), etc.

#### INSULATING THE FLOOR

If you have wood or any other kind of hard flooring, the floor can become cold in the winter.

#### **PUT DOWN A CARPET**

Simply placing a carpet down can trap heat from escaping into the floor, making the room warmer. Some people use electric heated carpets.

#### COMBINE THE CARPET WITH AN INSULATION MAT

If you lay an insulation mat underneath the carpet, it will be even warmer!

#### WARM CLOTHING

With just a few extra layers of clothing, you can raise your body temperature and feel warmer at home.

- If you wear a cardigan, sweater + 2.2°C
- If you wear socks + 0.6°C
- If you use a lap blanket + 2.5°C

Also, keeping areas with large blood vessels warm, such as the neck, wrists, and ankles, will improve blood circulation and warm the whole body.

















## STAYING SAFE AT HOME

#### **HOW TO DRAIN PIPES**

#### **WHY DRAIN PIPES?**

Hokkaido's winters are extremely cold, and water pipes may freeze if the outside temperature drops below -4°C (24.8°F). If your water pipes freeze, not only will you not have water, but you may also have to pay for repairs.

Draining pipes refers to the process of removing all the water from the pipes, and is an effective way to prevent the water from freezing and bursting the pipes.

#### Be especially careful when...

- the outside temperature falls below -4°C (24.8°F)
- you will not use the water for a long period of time (such as when you are sleeping or away from home on a trip)
- there are continuous "midwinter days" (days where the outside temperature is below freezing all day long)



#### **HOW TO DRAIN PIPES**

The method of draining pipes differs depending on the type of residence (standalone house, apartment, condominium, etc.). Please refer to the videos created by the Sapporo City Waterworks Bureau explaining the process for each type.

#### **HOUSE**



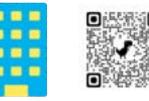


#### **APARTMENT**





CONDOMINIUM





https://youtu.be/YtySrSuuxsY



These explanatory videos are merely examples. They do not apply to all residences, nor cover all types of methods. If you live in a rental property such as an apartment or condominium, check with your landlord or manager for details on how to drain the pipes.

#### IF THE PIPES FREEZE

https://youtu.be/fUOge- uCU8

#### **REPAIRING MINOR FREEZES:**

Wrap a towel around the pipe or faucet and slowly pour hot water over it.
\*Do not use boiling water. Also, pouring hot water directly onto pipes or faucets or exposing them to an open flame to melt ice may cause the pipes to explode or cause a fire.



#### IF YOU ARE UNABLE TO REPAIR IT YOURSELF:

Consult with a nearby designated water supply equipment construction company. If you do not know the designated water supply equipment construction company, you can check with your local municipal office. \*The cost for repairs, etc. will be at your own expense. The cost will also vary depending on the time required for the repair and the materials used for the repair.







## **SNOW REMOVAL** 1

#### **SNOW REMOVAL TOOLS**

Snow shoveling can be done effectively by choosing the right snow removal tools that are easy to work with, depending on the type and amount of snow. There are many snow removal tools, but we will introduce some examples here.

#### **Examples:**



#### www.youtube.com/watch?v=hrLGErprFgM

A tool used to transport large amounts of snow. There is no need to lift it, which reduces the strain on your lower back.



#### www.youtube.com/watch?v=dlamlqJhGvE

A tool used to break up hardened snow or cut it into pieces to make it easier to transport.



#### www.youtube.com/watch?v=6 2dnukfuC0

A lightweight tool for scooping up soft, fresh snow and throwing it. However, if you force yourself to move heavy snow with this, you run the risk of injury.



#### www.youtube.com/watch?v=qKzqvVzu10s

In spring, snow that once melted may freeze again and become hard. This is a tool used to break the ice.



The snow shoveling website run by the Winter Life Promotion Council introduces many other snow removal tools and shows how to use them safely. (Japanese language only)

http://yukikaki.jp/index.html



#### **RULES OF SNOW REMOVAL**

We will introduce a few rules regarding snow removal.

Please do not dump snow in the roads. It is prohibited by the Road Traffic Act!

Please do not dump snow into rivers or sewers, as water could overflow or lead to flooding.

If you live in a condominium or apartment, snow removal from common areas, such as in front of the entrance, may be done on a shift basis. Check the rules for your residence.

> References: "Snow Shovelling Information Site" Winter Life Promotion Council "Rules and Manner for Sapporo Winter," "Requests for those living near rivers" Sapporo City





## **SNOW REMOVAL** 2

#### **BE CAREFUL OF ACCIDENTS WHEN REMOVING SNOW!**

Every year during the snowy season in Hokkaido, people are injured or die due to **falling ice and snow**, **accidents while removing snow from roofs**, and **accidents caused by snow blowers**. To prevent accidents owing to snow removal, etc., you need to <u>be careful on a daily basis</u>.

#### SAFETY POINTS TO KEEP IN MIND WHILE REMOVING SNOW

#### **REMOVING SNOW FROM THE ROOF**

Never remove snow from the roof alone! Call on family or neighbors and work together.

To prevent injury in the case of a fall, leave snow around the edges of the building.

Be careful on sunny days! The snow on the roof loosens, so take care not to fall along with it!

Don't forget to secure the ladder! Make sure your shoes and ladders are non-slip, and be careful when going up and down!

Wear a lifeline and a helmet, even if it's a hassle!

Don't let your guard down, even if you have a low roof!

#### **SNOW REMOVAL IN GENERAL**

Be especially careful right after you start working and when you get tired!

Turn off the engine before clearing snow from the snow blower!

Take care of and frequently inspect equipment such as snow blowers and lifelines!

Be prepared for the worst, and carry your cell phone with you, just in case!

#### OTHER SAFETY TIPS

**BE CAREFUL OF SNOW ON THE ROOF!** 

When passing underneath a roof or an eave, be cautious of falling snow or icicles.

**W** BE CAREFUL OF YOUR SURROUNDINGS!

Check if anyone is standing where you plan to throw / dump the snow.

- **BE MINDFUL OF CLOTHES!** Don't wear anything that could get caught in machinery.
- TAKE CARE OF YOUR HEALTH! Don't overdo it, and change your clothes if you sweat.
- **PAY ATTENTION TO WEATHER!**

If a blizzard or heavy snow warning is announced, refrain from going out as much as possible.

#### IF YOU HAVE QUESTIONS ABOUT SNOW REMOVAL...



Regarding snow removal around your home, please consult your landlord, manager, or neighborhood association.



Regarding snow removal from roads, etc., please consult your local municipal office.



Some municipal offices and NPOs carry out snow removal volunteer activities. If you need help with snow removal, or would like to volunteer, check to see if there is one in your area.

References: "Common accidents during snow removal, and their countermeasures" Cabinet Office "Prevention of damage caused by snow removal, etc." Hokkaido Government "Beware of accidents during snow removal" Hokkaido Police



## **WALKING IN WINTER**



#### **SAFETY TIPS**

The walkways and roads in winter can be very slippery, so if you don't walk carefully, you may fall and get injured. Be particularly careful when you start walking or change your walking speed, as you are especially likely to fall.

#### TAKE SHORT STEPS

Walk with small strides, keeping your feet an appropriate width apart (kind of like a penguin).

#### **PAY ATTENTION TO THE ROAD CONDITIONS**

There may be a thin layer of ice, or the ground may be slick with newly fallen snow.

#### **KEEP YOUR HANDS FREE**

If you carry baggage or put your hands in your pockets, you will not be able to reflexively protect yourself in the event of a fall, which could lead to serious injury.

#### WALK WITH THE ENTIRE SOLE OF YOUR FOOT

Walk with your center of gravity shifted forward and the soles of your feet parallel to the ground.

#### **TAKE YOUR TIME**

Don't rush. Traveling takes longer in winter than in summer, so plan accordingly and take your time.

#### STAY ALERT / ATTENTIVE

If you have drunk alcohol or are looking at your cell phone you may be less likely to pay attention to your steps, which increases the risk of falling.

#### **BE CAREFUL OF SLIPPERY AREAS!**

- Pedestrian crossings
- Sidewalks with car access
- Bus stops / taxi stands
- Beginning / end of areas with road heating
- Entrances to subways / underground malls
- Tiled floors of underground malls, etc.

#### **USING GRAVEL BOXES**

You can use gravel from the gravel boxes placed at large intersections to provide traction on slippery roads or walkways. Anyone can use the gravel freely, so spread it on slippery areas or places you think are dangerous.

#### **HOW TO USE**

Take one of the gravel-filled bags Spread the gravel Dispose of the empty bag in the gravel box





The website "From Sapporo! A comprehensive site for walking on winter roads safely and comfortably" run by the Winter Life Promotion Council has a section about the different types of gravel boxes and details on how to use them. (Japanese language only) https://tsurutsuru.jp/information1.html





# SUITABLE WINTER CLOTHES



#### **CHOOSING CLOTHES AND ACCESSORIES**

To walk safely and comfortably on winter roads, choosing the appropriate clothing and accessories is important. Wear clothing that protects you from the cold, is water repellent, and will absorb shock if you fall.



#### **HAT**

A thick woolen hat can protect your head. If it covers your ears, it will protect you from the cold as well.



#### **GLOVES**

Gloves made of materials such as leather or water-repellent polyester and long enough to reach the wrist are warmer.



#### **SCARF**

Scarves that are thicker, longer, and wider can be used to guard the neck, shoulders, and head, and help with temperature regulation.



#### **BACKPACK**

Using a backpack allows you to keep both of your hands free, which can be safer when walking on slippery roads.



#### COAT

Coats made out of water-repellent materials with padding or down feathers can protect against the cold. Those which have a hood and are long enough to cover your rear can be even warmer!



#### **SWEATER**

When it comes to sweaters, it is actually warmer to wear several layers of thin material rather than one layer of thick material. It's also convenient because you can remove layers if you get hot.



#### **THICK TIGHTS**

Wearing thick tights or long johns under your skirt or pants will help keep you warm and protect you from the impact of a fall.



#### **WINTER SHOES**

Winter shoes are shoes that are warm, water-resistant, and have non-slip soles. There are many types of non-slip soles and non-slip shoe attachments, so please consult with the store staff before purchasing.



For more information on clothing to stay warm and comfortable in winter, please check "From Sapporo! A comprehensive site for walking on winter roads safely and comfortably," run by the Winter Life Promotion Council (Japanese only)

**CLOTHING** 



**SHOES** 



NON-SLIP SHOE ATTACHMENTS



https://tsurutsuru.jp/kotsu7.html

https://tsurutsuru.jp/kotsu5.html

https://tsurutsuru.jp/kotsu6.htmll





#### PREPARATIONS BEFORE YOU DRIVE

When driving on winter roads, it is important to change to winter tires as soon as possible. You will also need to make preparations such as removing snow before driving.

#### **ABOUT TIRES**

Driving on snowy or frozen roads without taking measures to prevent slipping is actually against the law. Change to winter tires as soon as possible. You can change tires at a shop or by yourself. You may also need to attach tire chains, so be sure to learn how to do so.

#### **HOW TO CHANGE TIRES**







#### www.youtube.com/watch?v=Dk3NfOjhYow

This is a how-to video for changing tires created by the Japan Automobile Federation (JAF.)

#### **HOW TO ATTACH CHAINS**







#### www.youtube.com/watch?v=Ve7NJHd1tlq

This is a how-to video for attaching chains created by JAF.

#### PRECAUTIONS WHEN INSTALLING WINTER TIRES AND DRIVING

- When changing to winter tires, install them on all wheels.
- Summer tires and winter tires have different handling traits. When you change, drive carefully at first until you are familiar with the handling characteristics.



- When you install new winter tires, be sure to take them on a break-in drive.

  \*For details on how to break in new tires, see the Japan Automobile Tire Association HP.
- When driving on snowy or icy roads, the tread of the winter tires should be no more than halfway worn down (the tread depth indicator should not be exposed.)
- Once winter has ended, change back to summer tires as appropriate for the road conditions.

#### **REMOVE SNOW FROM CAR BEFORE DRIVING!**



- After removing the snow from the driver's side door and roof, open the door, start the engine, and turn on the defrosters (front and rear.)
- 2 Remove snow from the roof to prevent it from falling over your front window while you are driving and blocking your view.
- Remove snow and ice from windows on both sides of the vehicle.
- Remove snow and ice from the windshield, and put the wipers back down.

- Remove snow and ice from the rear window.
- Remove snow from the front wheel wells so that it does not interfere with the tires while steering.
- 7 Shovel snow from the road / area in front of the vehicle.
- **8** Get in the driver's seat, confirm that you can see properly, and drive away!

Sources: "Precautions when installing winter tires and driving" Japan Automobile Tire Association "Q&A for All Things Car Related" Japan Automobile Federation (JAF)

"Be careful of slipping in these places" Hokkaido Police



### PREPARATIONS BEFORE YOU DRIVE



You never know what kind of trouble you might run into on winter roads, especially if you are not familiar with driving on them. Be sure to have these items in your car that will come in handy in case something happens.



#### **TIRE CHAINS**

Chains are not often used with studless tires, but if the snow is deep, it may be necessary in some places.



#### **CAR JACK**

Check to see if your car is equipped with a jack. If you need to use it, jack up the car on a safe, flat, hard surface.



#### **JUMPER CABLES**

You can use these to jump your car if the battery dies. Choose the jumper cable that suits your car / purpose.



#### **FLASHLIGHT**

It is handy to have a flashlight if you need to investigate car trouble or attach / remove chains at night.



#### **SNOW/ICE SCRAPER**

Having a scraper in the car makes it easy to remove the frost and ice from the windshields in the morning.



#### **DE-ICING SPRAY**

You can use the spray to deice keyholes or defrost windshields. It's also useful if the wipers get stuck to the windshield.



#### **SHOVEL**

You may need a shovel to remove accumulated snow in a parking lot, or if your car slips and gets stuck.



#### **TOW ROPE**

If your car gets stuck, you may need a tow rope. Choose one with a thick rope, and sturdy metal fittings.



#### TRACTION ASSISTS

If your car gets stuck and your tires spin, you can use anti-slip gravel or a traction mat placed under the tires to help get the car moving again.



#### **GLOVES / BOOTS**

These can be useful if you need to work outside of the car, attaching or removing chains, or shoveling snow.



#### **WARM GEAR**

Prepare blankets and warm clothes in the car, just in case you get stuck, or your car breaks down.



#### WATER / FOOD

Prepare water and food in the car in case you have to spend a long period of time in your car.

Source: "What should you prepare before driving on winter roads?" Japan Automobile Federation (JAF)



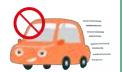


#### **SAFETY PRECAUTIONS**

Driving on winter roads requires more caution than on dry roads in the summer. Please take the following precautions to avoid traffic accidents.

#### FOUR KEY POINTS FOR SAFE WINTER DRIVING

DRIVE AT LEAST 10 KMPH SLOWER THAN YOU WOULD IN SUMMER!



WHEN THE ROAD IS ICY, **KEEP A SAFE DISTANCE** (AT LEAST 2X THE USUAL DISTANCE) FROM THE CAR IN FRONT OF YOU



SUDDEN BRAKING, SUDDEN ACCELERATION, AND AGGRESSIVE STEERING ARE DANGEROUS!



WHEN VISIBILITY IS POOR, LOOK AHEAD AND REDUCE YOUR SPEED EARLY!



#### **BE CAREFUL OF SLIPPING IN THESE PLACES!**

#### INTERSECTIONS



Intersections can be slippery and dangerous as ice and snow are polished smooth by traffic. Also, be aware that the intersection itself may not be visible due to high snow banks.

#### **HILLS**



It is difficult to stop on a downhill slope, so slow down sufficiently beforehand. When going uphill, be careful when you start accelerating.

#### **CURVES**



The centrifugal force of a curve means it is easy for the car to drift towards the other lane. Be aware of oncoming traffic.

#### **ON BRIDGES**



The road surface on bridges is cooled from above and below, which can cause black ice. Remember that bridges = icy, and be careful when crossing.

#### **ENTERING/EXITING TUNNELS**



It can be difficult to see ahead as the eyes adjust to changes in light and dark, so it is necessary to anticipate changes in road conditions when driving.

#### IN THE SHADE



Even if the ice is melting on sunny roads, shaded areas may be frozen. Please be careful and drive slowly.

Sources: "Precautions when installing winter tires and driving" Japan Automobile Tire Association
"Be careful of slipping in these places" Hokkaido Police





Hokkaido roads in winter can be extremely harsh for drivers due to blizzards and icy conditions. Before you drive, be aware of the conditions you may encounter.

#### **TYPES OF ROAD CONDITIONS & SLIPPINESS**



#### COMPACTED SNOW

A white road surface is caused when snow is compacted by traffic. This type of road surface may become extremely slippery depending on the temperature and traffic volume, so please be careful.

#### **GRANULAR SNOW**

This type of snow does not contain moisture, and becomes crunchy or granulated.

#### **BLACK ICE**

Black ice occurs when the road freezes over, and the ice looks black with no gloss or shine. Black ice can be thick, like a plate, or thin, like a film.

If the black ice is thin, it is often wet, and you must be extremely cautious not to slip when driving.

#### **POWDERY SNOW**

Dry, freshly fallen snow, or snow that has been blown into the air by wind is powdery snow. This type of snow is often accompanied by poor visibility, as the snow does not settle easily.

#### SLUSH (SHERBET)

This slushy, wet snow resembles sherbet and is often seen on warm days or in early spring.



The Northern Road Navi "Winter Driving Guide" explains different road conditions (with images.)



https://northern-

road.ceri.go.jp/navi/info/guide1\_3.html#c

#### **VISIBILITY IN A SNOWSTORM**



#### GOOD (>1000 m)

You can see quite a distance along the road, as well as distant mountains, hills, and buildings. Even if it snows a little, visibility is such that you wouldn't notice a big difference compared to when it's sunny.

#### SLIGHTLY POOR (500 1000

You can see that it is snowing and that the snow is being blown by the wind. In terms of visibility you can still clearly see the lines of the road and surrounding trees. Although visibility is not so impaired that it will affect driving, it is necessary to be prepared for sudden changes in weather.

#### POOR (200 500 )

From the driver's seat, visibility is noticeably poor. The visibility is such that you can see three or more traffic arrows ahead. Even if visibility is poor, you don't have issues seeing the lines of the road, or the cars in front of you, and the flow of traffic does not change much from usual.

#### **VERY POOR (100 200 m)**

You can just barely see two traffic arrows ahead. Due to snowfall or blizzard conditions, visibility is significantly poor, so people would likely slow down. You can see the car in front of you and the lines of the road, so you can drive relatively well. However, you should be prepared as visibility could suddenly drop to less than 100 meters temporarily.

## SIGNIFICANT VISIBILITY IMPAIRMENT (< 100 m)

The visibility is so poor that you can barely see one traffic arrow ahead, and the taillights of the car in front of you may be obscured. In cases of extremely severe visibility problems, you may feel like you can't see anything in front of you at all because the entire area is completely white. Due to poor visibility, drivers begin to drive slowly. In addition, the speed difference between vehicles increases, so there is a lot of close-proximity driving, and driving in groups.



The Northern Road Navi "Winter Driving Guide" explains the different visibility conditions (with images and videos.)

https://northern-road.ceri.go.jp/navi/info/guidel 2.html#b



Source: "Winter Driving Guide" National Research and Development Agency Civil Engineering Research Institute, Cold Region Civil Engineering Research Institute





#### PREPARING FOR AN EMERGENCY

#### **CHECK THE ROAD CONDITIONS**

Before you depart, check the weather, road conditions, traffic regulation information, visibility information, etc. on the way to your destination. If you think it might be difficult to drive due to heavy snow, etc., consider changing your departure time or using public transportation.

## BLIZZARD VISIBILITY IMPAIRMENT MAP







#### www.hkd.mlit.go.jp/ky/kn/dou\_iji/ud49g70000000qlh.html

The Hokkaido Regional Development Bureau created a map that provides information on poor visibility areas due to snowstorms, places to put on and take off chains, and precautions when driving on winter roads.

Languages: Japanese and English

## BLIZZARD VISIBILITY INFORMATION PORTAL SITE







#### www.northern-road.ceri.go.jp/navi/touge/fubuki.htm

The Cold Region Civil Engineering Research Institute provides current visibility and forecast information in Hokkaido to assist drivers in making decisions about their actions during snowstorms.

Language: Japanese

## ROAD INFORMATION PROVISION SYSTEM







#### www.road-info-prvs.mlit.go.jp/roadinfo/

This site provides information related to traffic regulations (road closures due to abnormal weather, disasters, construction, etc.) on expressways, national roads, and prefectural roads managed by some local governments. You can check the actual road conditions with live road cameras.

Languages: Japanese and English

#### **DRIVE TRAFFIC "DORA TORA"**







#### www.drivetraffic.jp/

This web service delivers traffic information for expressways nationwide (in real-time. You can also receive notification emails about road closures and check information on traffic congestion predictions, construction regulations, road surface information, etc.

Languages: Japanese, English, Korean, Thai, and Chinese (Traditional and Simplified)

#### IF YOU GET STUCK...

If your car gets stuck due to a snowdrift or dead battery, remember the following to save your life.



#### STAY NEAR THE CAR!

If you leave your car during a snowstorm, you may lose track of your location and run the risk of getting lost. Do not leave your vehicle unless you are sure of the location of the evacuation site or your rescuer.



#### STAY SAFE IN THE CAR!

If the exhaust pipes become buried in snow, the exhaust fumes may flow back into the vehicle and cause carbon monoxide poisoning, which can be fatal. Please regularly remove any snow around the exhaust pipe and open the windows slightly to help ventilate.



#### **CALL FOR HELP!**

Pull the car over and turn the hazard lights on. When calling for help, be sure to accurately describe your location. Signs with the highway number and kilometer count are posted every 1km on national highways.



#### JUST IN CASE!

"Roadside Stations" (Michi no Eki) have 24-hour parking lots, restrooms, and telephones. Some also have shops and restaurants. Please stop at a Roadside Station if you feel unsafe driving due to snowy conditions.

Source: "Be prepared for Driving on Winter Roads" Hokkaido Development Bureau



## **ENJOYING WINTER SPORTS SAFELY**



Winter sports such as skiing, snowboarding, and mountain climbing are popular in Hokkaido. If you enjoy venturing into backcountry areas, it is especially vital that you know all of the safety precautions in advance.

#### SAFETY PRECAUTIONS WHEN SKIING

- Don't forget to check the metal fittings and do a warm-up before you ski / board.
- When setting off skiing, merging onto other courses, or crossing slopes, check your surroundings to avoid getting in the way of other skiers. Be careful when passing.
- Observe signs, notices, and warnings, follow patrol instructions. particular, do NOT enter areas where skiing is prohibited.
- Choose a course based on your skill level, the slope, snow quality, weather, and other conditions, and be sure not to push yourself too hard.
- Avoid standing or sitting in the center of the course. When you stop, move to the edge of the course.
- If visibility is poor due to wind or snow, etc., don't take chances, and stop skiing until conditions improve.

Source: "Enjoy Winter Sports without Accidents!!" Hokkaido Government

#### SAFETY PRECAUTIONS WHEN CLIMBING IN WINTER

- Choose a mountain that matches your physical strength and skill level.
- Make a climbing plan that allows for plenty of time.
- Make sure you have a communication
- Equip yourself with rain gear and winter clothing in case of an emergency.
- Share your climbing plan with your family, friends, workplace, and even the police.



Source: "Preventing mountain climbing accidents" Hokkaido Government



## **CLIMBING PLAN (CLIMBING REPORT)**

Create a climbing plan that matches you and your climbing partners' physical strength and skills, and submit it to family, friends, your workplace, and the police. The plan should include your planned climbing route, your equipment, and the climbers' names, ages, contact information, etc.

#### **DOWNLOADABLE CLIMBING PLAN**

(JAPANESE & ENGLISH)



www.police.pref.hokkaido.lg.jp/info/chiiki/sangak u/006-climbing\_plan/006-climbing\_plan.html

**HOKKAIDO POLICE ONLINE CLIMBING PLAN SUBMISSION** 

(JAPANESE ONLY)

https://www.police.pref.hokkaido.lg.jp/consult/yamamail/tozan mail.html



# **ENJOYING WINTER SPORTS SAFELY**



#### SAFETY PRECAUTIONS IN THE BACKCOUNTRY

## 1

#### **CHECK WEATHER & AVALANCHE INFORMATION**

- Are there advisories or warnings of wind / snow?
- Is there a high risk of avalanche?
- Do you have a way to check the latest weather forecast?





#### **CHECK THE TERRAIN & ROUTE**

- Do you have the skill and endurance for your chosen route?
- Do you have a clear vision of the route from start to finish?





#### BRING THE PROPER WINTER EQUIPMENT

- Do you have the 3 MUST items for winter (beacon, probe, shovel)?
- Do you have the equipment and food to survive in bad weather?
- Do you have a mobile GPS, a communication device (such as a phone), and spare batteries?





#### SUBMIT A CLIMBING PLAN

- Do you have a climbing partner or partners? Avoid going alone.
- Is your climbing plan feasible? Have you submitted the plan?





#### WITHDRAW WITH COURAGE =

- Are you prepared to withdraw if the weather or visibility takes a bad turn?
- Do you know what to do to survive in the worst-case scenario?





## If you get lost...

- Don't walk unnecessarily. Wait for rescue in a place protected from precipitation and wind.
- Alert the search team of your location using your mobile phone or something that makes a high-pitched sound, such as a whistle. A whistle allows sound to travel far and alert search teams to your whereabouts, leading to early detection and saving your life.



Some ski areas may have special rules, so be sure to check before entering the backcountry.

Source: "Preventing mountain climbing accidents" Hokkaido Government



## REFERENCES



#### WINTER IN HOKKAIDO

- "Hokkaido Data Book 2023" Hokkaido Government https://www.pref.hokkaido.lg.jp/ss/tkk/databook/160001.html
- "Statistical Period 1981-2010 Data" Japan Meteorological Agency https://www.jma.go.jp/jma/press/1103/30a/110330\_heinenchi.html



#### PREPARING FOR BLIZZARDS

- "Preventing damage due to blizzards, etc." Hokkaido Government https://www.pref.hokkaido.lg.jp/sm/ktk/bsb/boufusetu.html
- "Prevention of Winter Accidents" Hokkaido Police https://www.police.pref.hokkaido.lg.jp/sub\_menu/04\_koutuu\_2.html#surippu



#### STAYING SAFE AT HOME

- "Correct and Safe Usage of Gas and Kerosene Appliances" Japan Industrial Association of Gas and Kerosene Appliances https://www.jgka.or.jp/gasusekiyu\_riyou/index.html
- "Lifestyle tips to save on kerosene and get through winter" Hokkaido Government https://www.iburi.pref.hokkaido.lg.jp/hk/kks/133314.html
- "A guide to saving energy and electricity in winter" Sapporo City https://www.city.sapporo.jp/somu/koho-shi/201211/documents/20121103.pdf
- "Please be careful of frozen pipes" Sapporo City Waterworks Bureau https://www.city.sapporo.jp/suido/riyosya/faq/toketu\_01.html
- "If your pipes freeze..." Sapporo City https://www.city.sapporo.jp/suido/riyosya/faq/toketu\_03.html



#### SNOW REMOVAL

- "Snow Shovelling Information Site" Winter Life Promotion Council http://yukikaki.jp/index.html
- "Snow Damage Countermeasures" Cabinet Office https://www.bousai.go.jp/setsugai/

































#### SNOW REMOVAL

- "Prevention of damage caused by snow removal, etc." Hokkaido Government https://www.pref.hokkaido.lg.jp/sm/ktk/bsb/yukihigai.html
- "Beware of accidents during snow removal" Hokkaido Police https://www.police.pref.hokkaido.lg.jp/info/chiiki/snow/snow.html
- "Rules and Manners for Sapporo Winter" Sapporo City https://www.city.sapporo.jp/kensetsu/yuki/rule.html
- "Requests for those living near rivers" Sapporo City https://www.city.sapporo.jp/kensetsu/kasen/onegai.html



#### WALKING IN WINTER

"A comprehensive site for walking on winter roads safely and comfortably" Winter Life Promotion Council https://tsurutsuru.jp/index.html



#### **DRIVING IN WINTER**

- "Winter Road Driving and Tires" Japan Automobile Tire Assocation https://www.jatma.or.jp/tyre\_user/winterroaddrivingandtyres.html
- "Prevention of Winter Accidents" Hokkaido Police https://www.police.pref.hokkaido.lq.jp/sub menu/04 koutuu 2.html#surippu
- "Be careful of slipping in these places" Hokkaido Police https://www.police.pref.hokkaido.lg.jp/foreign/foreign.html
- "What should you prepare before driving on winter roads?" Japan Automobile Federation (JAF) https://jaf.or.jp/common/kuruma-qa/category-natural/subcategory-snow/faq143
- "Q&A for All Things Car Related" Japan Automobile Federation (JAF) https://jaf.or.jp/common/kuruma-ga
- "Winter Driving Guide" National Research and Development Agency Civil Engineering Research Institute, Cold Region Civil Engineering Research Institute https://northern-road.ceri.go.jp/navi/info/drive.htm
- "Be prepared for Driving on Winter Roads" Hokkaido Development Bureau https://www.hkd.mlit.go.jp/ky/kn/dou iji/ud49g7000000glh.html



#### **ENJOYING WINTER SPORTS SAFELY**

- "Enjoy Winter Sports without Accidents!!" Hokkaido Government https://www.pref.hokkaido.lg.jp/ks/ssk/00002.html
- "Preventing mountain climbing accidents" Hokkaido Government https://www.pref.hokkaido.lq.jp/sm/ktk/bsb/tozannnozikobousi.html



























