

MONT BLANC SPECIAL

Don't go up Mont Blanc on a whim.
Make sure you consider

THE BASICS

SAFETY BASICS

FOR MONT BLANC



Put simply, climbing Mont Blanc is

A HIGH MOUNTAIN ASCENT.

YOU CAN'T IMPROVISE ON THE WAY UP,
YOU SHOULD KNOW WHAT YOU'RE GETTING YOURSELF INTO.

**Mountaineering isn't something you learn
on your way up the day of your climb.**

CLIMBING MONT BLANC:
the stuff of **Mountaineers**

SO THE QUESTION IS:

Are you a mountaineer?

PREPARATION

INFORMATION



chamoniarde.com

RESERVATION

Reservations are
COMPULSORY
for the Gôûter route,
only on
montblanc.ffcam.fr



✓ Book the hut

- ✓ Technically prepared
- ✓ Experienced
- ✓ Physically prepared
- ✓ Mentally prepared
- ✓ Acclimatised

2

- ✓ On skis, or on foot?
- ✓ When?
- ✓ Who with?
- ✓ How many days?
- ✓ Which route?
- ✓ What are conditions like?
- ✓ What's the weather forecast?
- ✓ Lifts timetable?
- ✓ What time are we setting off?

1

- ✓ Experienced in rope management
- ✓ Experienced in self arrest
- ✓ Experienced in use of crampons
- ✓ Experienced in climbing technical sections

ASCENT

ANALYSIS

- ✓ Do I feel OK?
- ✓ Actual weather vs forecast
- ✓ Conditions on the mountain vs forecast
- ✓ Take note of objective dangers
- ✓ Ready to react & anticipate

CHECK

- ✓ Timing?
- ✓ Conditions?
- ✓ Tiredness,
- ✓ Signs of AMS*

*acute mountain sickness

SUMMIT

- ✓ Rest
- ✓ Reflection

✓
REFOCUS

DESCENT

BE EXTRA CAREFUL ON THE WAY DOWN!

Stay focused
as physical and mental
fatigue become an added
strain!

STAY ROPED UP!

- so you don't end up in a crevasse
- to arrest a fall
- to increase confidence

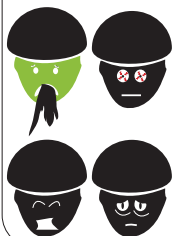
BASICS

High mountain

1 ALTITUDE

Our bodies can have problems adapting to altitude, and in addition to getting out of breath, some people can suffer from symptoms of altitude sickness.

Symptoms of AMS



- ☐ Headache
- ☐ Feeling sick
- ☐ Vomiting
- ☐ Insomnia
- ☐ Fatigue
- ☐ Vertigo

As altitude increases, atmospheric pressure (including oxygen) decreases and we take less oxygen into our blood, causing our bodies to react.

Effects of altitude sickness can be debilitating and even fatal (especially cerebral oedema).

Symptoms will only ease by losing altitude.

You should stop immediately if you experience any of these symptoms.

Even the most experienced alpinists can suffer from altitude sickness if not acclimatised, even champion trail runners will experience significant reduction in lung capacity.

BASICS

ACCLIMATISATION. Our bodies need time to adjust to altitude (increased red blood cell production to increase absorption of oxygen into the blood): climb slowly, go on the valley floor, climb again and spend a night or two at altitude. Take some rest at valley floor before heading for the summit.

2 SNOW CONDITIONS

Whichever route you choose, you will be walking on snow (glaciers, steep slopes). Whatever the season (yes, even in summer), mountaineering boots and crampons are indispensable.

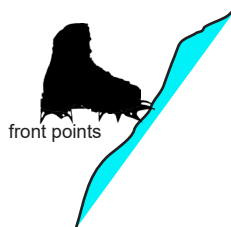
(shoe grips or trail running crampons will not be good enough)



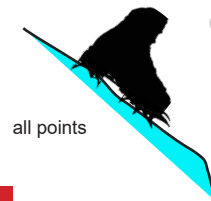
with anti balling plates



The snow might be firm (or not), powder, wet, icy... You should develop solid cramponing techniques beforehand, not expect to learn during the ascent and risk losing control.



front points



all points



three quarters points

BASICS

IT IS ESSENTIAL TO KNOW HOW TO USE CRAMPONS AND AVOID FALLING ON STEEP SLOPES.

③ CREVASSES

You will travel on a glacier whatever the route chosen. All glaciers have crevasses, which can be more or less wide or deep. Snow bridges across crevasses vary in how solid they are, and how technical they are to cross.

TAKE NOTE:

- Crevasses generally form where the glacier steepens but can also be found on flat areas.
- Even if a snow bridge looks substantial, that doesn't always mean it is solid.
- Glacier travel becomes delicate in bad weather since it is even harder to read the terrain.

There's no telling who will fall into a crevasse.

BASICS

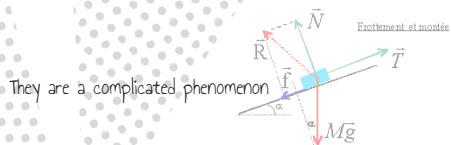
- Make sure you are aware of prevailing conditions.
- Know **HOW TO ROPE UP PROPERLY** to make walking on a glacier and crossing crevasses safer, and to avoid 80m free fall.
- Know **HOW TO SELF ARREST** and arrest your partner's fall.
- Know how to do a crevasse self-rescue.
- Know how to belay your climbing partner.
- Know how to set up **AN ANCHOR** (in ice or snow).



photo: JF Hagenmuller

4 SERACS

Depending on the chosen route, you might be exposed to serac fall danger. Seracs are large ice blocks which can fall with no warning signs, be it summer or winter, warm or cold, day or night, morning or afternoon.



The only way do deal with a serac is to spend the least amount of time below it!

BASICS

- Observe the seracs.
- Look for signs of instability, cracking noises.
- Cross the exposed section quickly.
- **REDUCE** the amount of time you are exposed to them.



5 AVALANCHES

In the high mountains, snow can fall year round. If there is a snow fall, there may be avalanche risk, **even in the middle of summer.**

Wind, temperature, previous day's weather, direction of slope, slope angle, presence of cornices or seracs, number of people...

...are all factors to be taken into consideration before setting off on a given route.



BASICS

- Check current conditions.
- Know how to evaluate **THE STABILITY OF THE SNOWPACK.**
- Know **HOW TO RECOGNISE ACCUMULATIONS OF SNOW.**
- Listen
- Look around
- **BE EQUIPPED** with a transceiver, probe and shovel even in summer .
- Know how to look for a buried person.



6 ROCK FALL

On the normal route, the climb to the Gouter hut is on loose rocky terrain:

- traverse of the grand couloir, renowned for frequent rock fall
- ascent of an exposed ridge

Rock fall is common in many mountain areas...

TAKE NOTE:

With climate change causing the permafrost to melt, rock fall is getting more frequent and substantial in the couloir.

BASICS

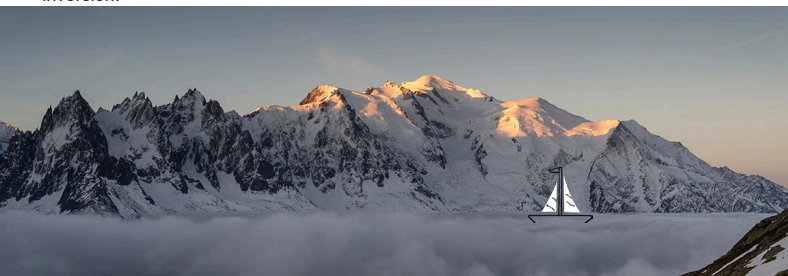
- Enquire about conditions and avoid very hot and dry periods or heatwaves.
- **AVOID THE HOTTEST TIME OF DAY** (the sun hits the top of the couloir well before the bottom).
- Avoid the busiest days.
- **DON'T HANG AROUND.**
- Listen, look around.
- Watch where you put your feet.

These are dust clouds caused by rock fall (some rocks can be the size of a car or a truck).



7 WEATHER

You are not always above the clouds in the mountains: only when there is a temperature inversion.



Bad weather often means wind, snow or rain fall, but also a lack of **VISIBILITY**. You may find it difficult to stay on track or make sense of the terrain. So you might panic, get lost, fall into a hole or slip... and that's no fun.

Possible problems with visibility on Mont Blanc.

WEATHER FRONT

Normally forecast in advance.
No visibility, possible snowfall light or heavy, with or without wind.

THUNDERSTORMS

Frequent and violent: no visibility, wind gusts (up to 150km/h), fresh snow, lightning.

FOEHN FRONT

Huge storm front (gusts up to 150km/h), appearing from the Italian side in a few hours and covering the border range. Summit inaccessible.

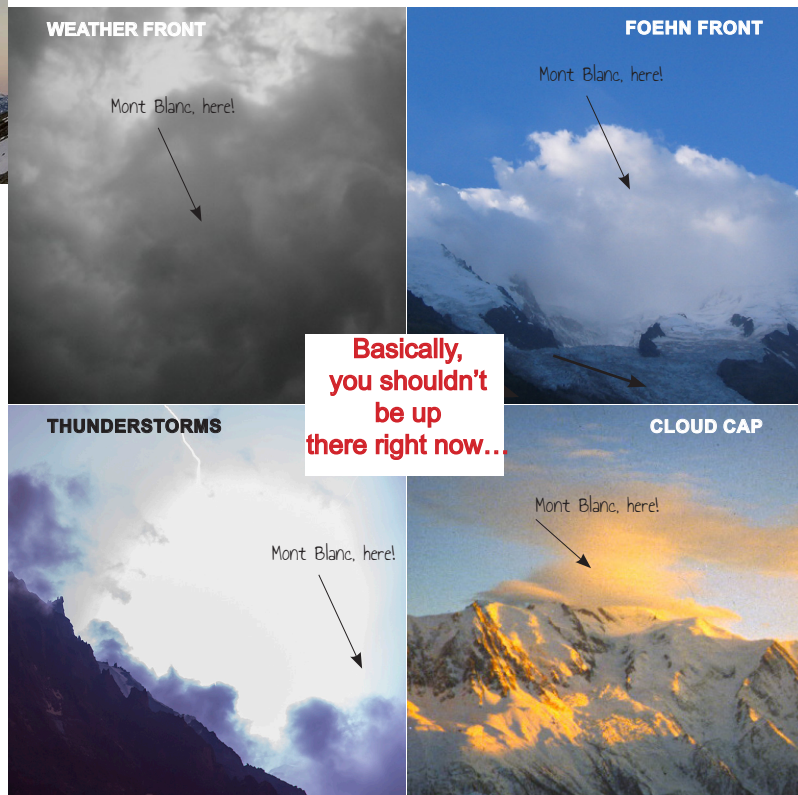
CLOUD CAP

Summit is in bad weather, wind, zero visibility. Good weather everywhere else. Signifies an incoming weather front or high winds at altitude (the only part of the mountains in the clouds).

It is possible to go out hiking on a marked trail in bad weather with the option to turn back, but you would never set out for Mont Blanc in bad weather.

A weather window of 4 hours isn't long enough!

and don't think you can always call the helicopter to rescue you in bad weather ...



WIND WARNING

It might not seem like an important part of a forecast if you haven't experienced the consequences, but wind alone can make the summit inaccessible.

TAKE NOTE:

Cold is intensified by the wind: -15°C is more like -30° with 60km/h wind. On Mont Blanc it's nearly always windy.
Watch out for **frost nip**. **Hypothermia** can also come about due to reduced body activity (fatigue, accident).

The wind can also:

- Cause a sudden reduction in visibility
- Slow progress (from 50km/h)
- Blow out tracks in the snow (and no signage up there)
- Create **weak snowbridges** in a few hours
- Create **accumulations of snow** (during or after the snow fall) resulting in **avalanches**, **snowdrifts** or **cornices**
- Be the cause of the cloud cap on Mont Blanc

TEMPERATURES

Mont Blanc saw record high temperatures in summer 2019, but generally temperatures at 4810m vary between -5°C and -15°C .

BASICS

- Check the forecast: cloud cover but also **wind** and **temperature**.
- Be prepared to react fast if the weather changes.
- Don't plan your ascent on a **short weather window**.



BASICS

Physical, mental and technical

PHYSICAL HEALTH

You need to be fit enough to walk for several hours on the trot, have good aerobic fitness and be able to move confidently in varied terrain.

In other words, you need **TO GET IN SHAPE** (hiking, biking, running) if you don't normally do much exercise (it could take a few months, even a year!). If you practice a lot of sport, just remember you won't have the same capacities at altitude.

MENTAL TRAINING

It isn't possible to switch off mentally as it is in some sports, and focus only on physical effort. The mental side plays a key role, from preparation for your ascent to getting back home safely. Continuous checks on our physical and mental condition, and the conditions in the mountains should facilitate making the right decision: **TURN BACK** or **KEEP GOING**.



TECHNIQUE

All routes involve glacier travel.

IT IS ESSENTIAL TO MASTER MOUNTAINEERING TECHNIQUES:

- **Cramponing** (soft & hard snow, on flat & steep terrain, on a ridge...)
- **Rope management** (short, long, coiled around the body)
- **Self arrest** (stopping your own fall, or that of a partner, falling into a crevasse)
- **Technical terrain** (crevasses, bergschrund, ice, seracs, ridges)

It is important to use the correct techniques depending on terrain, situation and conditions.



BASICS

Train in order to be fit:

- **PHYSICALLY**
- **MENTALLY**
- **TECHNICALLY**

BASICS

Planning & Timing

WHAT IS THE BEST CLIMBING SEASON?

There is no definitive answer. It depends on prevailing conditions from year to year.

A rough idea would be mid May to mid October.



HOW MANY DAYS?

Again, it depends on you and the mountains... your fitness, the conditions, the route chosen, with or without using lifts, on foot, on skis, problems encountered, how crowded huts are...

- **1 DAY** – you are an athlete and always in the mountains. (lucky you!)
- **2 DAYS** – more common: using lifts and going to the refuge the first day, ascent and descent the 2nd day. Hard going physically
- **3 DAYS** – same as for 2 days but with an extra night before returning to the valley, avoiding possible injury on the descent (due to tiredness).

WHAT IF I WANT TO SKI MONT BLANC?


Be aware that Mont Blanc is first and foremost a mountain route, not just backcountry skiing. Travelling in glacial terrain requires technical knowledge, experience and awareness.

You could encounter all types of snow conditions and the slopes are steep (on the ascent and descent). Again, it's difficult to determine which time of the year to go as it depends on the previous winter (amount of snow, temperature, wind) and spring temperatures, as well as your chosen route. A rough idea would be **March to mid June** but it is vital to check current conditions and weather if planning a ski ascent. And don't even think about planning to do it in January...

BASICS

classic French routes

NORMAL ROUTE

(via Tête Rousse /Goûter huts) 

The least technical route. No big avalanche slopes or seracs. Risks are more from rock fall and slipping.


Can be problematic in high winds: hard to keep your balance with above 50 km/h winds.

The most popular route: be aware of the behaviour of other climbers!

GRANDS MULETS ROUTE



THE 3 MONTS ROUTE

(via Cosmiques hut) 

A potentially VERY technical route, depending on conditions. Bergschrunds can be difficult to cross, some sections are exposed to seracs or can be steep (45°/50°), icy, or exposed to avalanche risks.

This route requires more experience and preparation.

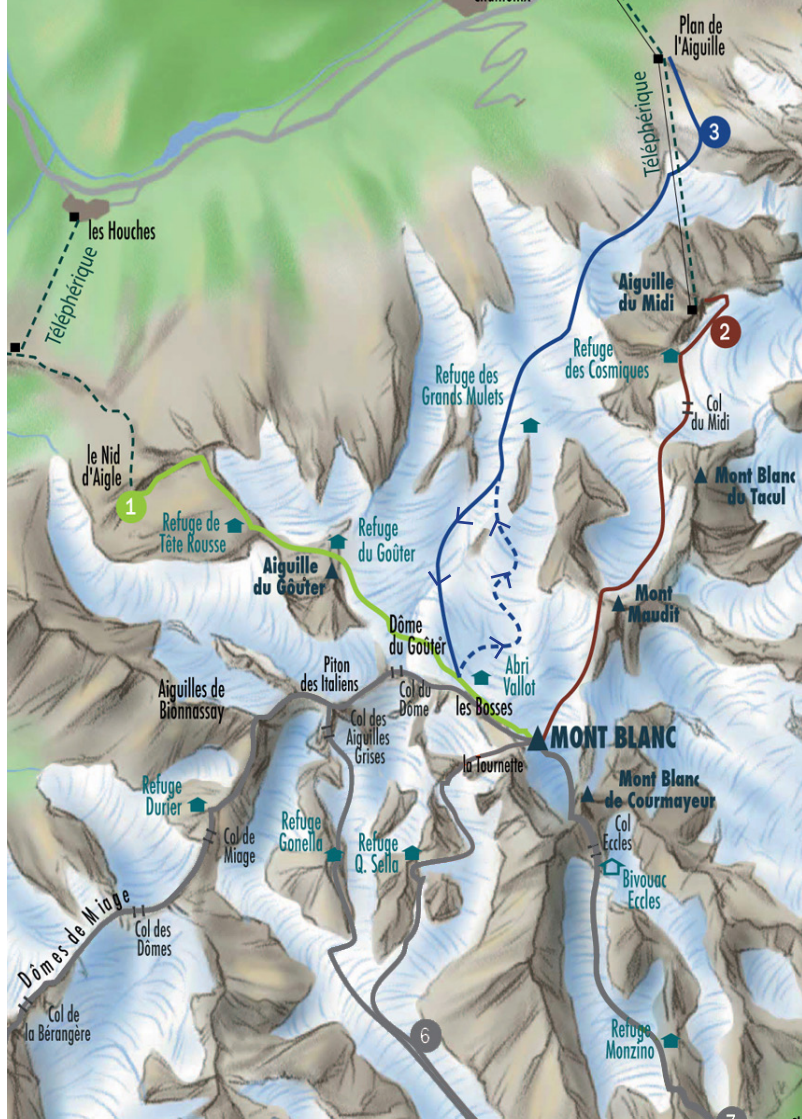
Classic spring ski route with two options for the ascent:

- The classic over the Plateaux, very exposed to serac falls.
- Over the north ridge of Dôme du Goûter: not as exposed but technically more demanding and longer.

Ski back down across the Plateaux. The north ridge of the Dôme can also be considered for summer mountaineering (generally OK until mid-July), but the descent has to follow the other routes.

DESCENT

Via the same route as your ascent (except for N ridge of Dôme du Goûter) or descend via the other routes. Whichever your route, be careful on the descent, most accidents happen on the way down, and objective dangers are the unchanged.



CAMPING PROHIBITED



(Site Classé, art. R 111-33 du Code de l'Urbanisme)

BASICS

Mountain huts

Take your shoes off and put your gear away. Introduce yourself to the hut keeper. Respect meal times and lights out, there's no need to take karabiners or anything noisy in the dorms. Fold your blankets. Don't throw anything in the toilets. Don't waste water. Take your rubbish with you. Respect nature.

BOOKINGS ARE RECOMMENDED

for the Cosmiques and Grands Mulets huts



Cosmiques: 00 33 4 50 54 40 16

*unless you want to risk having
to sleep outside!*



Grands Mulets: 00 33 4 50 53 57 10

BOOKINGS ARE COMPULSORY

for huts and base camp **ON THE NORMAL ROUTE (VIA AIG. DU GOÛTER)**



Nid d'Aigle



Tête Rousse



Goûter



Tête Rousse basecamp (group tents - no private tents)

Only on **montblanc.ffcam.fr**

If you wish to cancel, please call back the hut or cancel on the website

PRACTICAL TIPS

CURRENT CONDITIONS

La Chamoniarde / Office de Haute Montagne
Maps, specific route information...

Maison de la montagne, top floor

- www.chamoniarde.com
- 00 33 4 50 53 22 08

WEATHER

- www.chamonix.com
- meteo-chamonix.com
- 08 99 71 02 74 (Météo France)

LIFT INFO

- www.montblancnaturalresort.com
- 00 33 4 50 53 22 75

IN CASE OF EMERGENCY

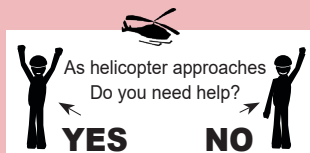


WHERE? GPS COORDINATES

Give best possible information about:
location, itinerary, altitude, aspect of slope...

WHAT?

Type of accident
Number of victims



The operator will help you give appropriate information but prepare your call before dialing 112.

KEEP IN MIND:

- 112 is an emergency number which can be dialed free of charge from any GSM handset, even locked, whatever the provider available at your location, if there is service.
- The rescue helicopter may not be able to fly in bad weather, and rescuers may not reach you for several hours (or more).

RECAP

I know the high mountain environment
and mountaineering techniques
I am experienced and autonomous



I am a mountaineer

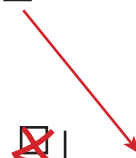


Acclimatised
Fit



- ☒ Good weather
- ☒ Good conditions
- ☒ Hut booked

Not acclimatised
Unfit



NO MONT BLANC

I don't know much
I don't know the techniques
I'm not experienced



I'm not a mountaineer



Not acclimatised
Unfit



Acclimatised
Fit



I'll go with
a certified
Mountain Guide

**All you need
for a potentially
successfull ascent**





La Chamoniarde

SOCIETE DE PREVENTION ET DE SECOURS EN MONTAGNE

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Photos de couverture : Eric Courcier

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