



7 routes to the top of the Alps

There is more than one way to reach the top of Mont Blanc.

It may be more fun, particularly during the busier periods, to take one of the less traditional routes. The more technical passages demand substantial experience. In order of difficulty and mostly of risk exposure:

1. The normal route via Gouter.
Alpine grade: PD (somewhat difficult). Ascent: 1450 + 1000m or 800 + 1650m (overnight stop at Tête Rousse)
With an overnight stay at Tête Rousse, the altitude gain is higher (1650m), but you will be crossing the coloir at the right time and you can stop at the Gouter refuge on the way back.

2. The three summits. (Tucul, mont Maudit, mont Blanc).
Alpine grade: PD+ (somewhat difficult+). Ascent: 1200m
More technical and physically demanding than the normal route, this itinerary is attracting increasing numbers of climbers. Descent via either Götters or Grands Mulets.

3. Grands Mulets and the Dôme du Gouter ridge

Alpine grade: PD+ (somewhat difficult +). Ascent: 700 + 1800m.

A classic on skis and for descent, this historic route is not recommended on foot because it means being exposed for too long to the risk of serac falls from the Petit Plateau. The alternative is to climb the north ridge of the Dôme du Gouter from the Gouter refuge before reaching the Vallot hut.

4. Italian normal route (or Aiguilles Grises)

Alpine grade: PD+ (somewhat difficult +). Ascent: 1300 + 1800m (or 800 + 1000m)

The normal Italian route is a long and beautiful snowy itinerary on a glacier that can be complicated. Possibility of an intermediate night stop at the Goûter refuge.

5. The Royal Traverse: Miage, Bionnassay, Mont Blanc

Alpine grade: AD (fairly difficult) (exposed). Ascent: 1450+1100 +1650m
 Long expedition with sharp ridge passages that are very tricky.

6. Tournette spur
Alpine grade: AD (fairly difficult). Ascent: 1700 + 1400m.
Long, exposed expedition in wild terrain; involves committed climbing with traditional protection.

7. Innominata ridge

Alpine grade: D+ (difficult +). Ascent: 900+1500+800m.
Long, exposed expedition along a complicated route.

Being aware of the dangers

Altitude Do not confuse difficulty with danger. The busiest routes to Mont Blanc are not particularly demanding technically speaking. However, they involve all the dangers inherent to this environment. To limit risks, start by identifying the hazards of the terrain, finding out current conditions and the capabilities of your party.

Altitude
The higher you go, the less oxygen there is. **AMS** (acute mountain sickness) is a constant threat. Headaches, insomnia, breathlessness, loss of appetite, nausea, vomiting... the main symptoms can appear even at 3,500m. There is nothing to do but turn back. Proper acclimatisation can help prevent AMS.

Cold At high altitude, close to 5,000m, the weather can change very quickly, bringing all kinds of problems: fog, cold made worse by violent winds, snow, frost, storms, lightning. It is important to be able to recognise the warning signs and to know when to retreat.

Getting lost

One of the main dangers of Mont Blanc is getting lost in sudden fog, particularly close to the summit or between the Aiguille and the Dôme du Goûter. Never set out without a map, navigation instruments and the knowledge of how to use them. Know precisely where you are during your entire itinerary.

The danger of falling increases with the steepness of the slope and the steepest areas include the Gûter ridge, below the Mont Maudri pass or the Bosses ridge. Although fresh snow offers serene landscapes of beautiful slopes, these same slopes become treacherous when the snow is hard. Good technique and suitable roping methods are essential.

Busy periods The presence of other groups is reassuring, often too much so, particularly along the normal routes. The presence of other people offers a false sense of security. You happily follow in their footsteps, perhaps losing your own concentration. During the busiest periods, having to slow down and even stop for others adds further difficulties and can increase exposure to hazards.

Extreme fatigue Fatigue, due to heat, humidity, altitude, cold, height gain and lack of preparation can result in profound fatigue. It is important that group members look out for one another.

evasses
 tiers are very broken up in parts, particularly at the Jonction. Appropriate roping techniques and crevasse
 ve equipment on each harness are essential.

Seracs Falls Seracs move at their own, imperceptible pace. Balanced seracs can fall at any time, without warning, particularly near the Mont Blanc du Tacul, around the Petit Plateau and the Grand Plateau. Avoid these areas or if not possible, do not linger there.

altitudes like these, there is no season for snow. After a period of bad weather, extra care should be taken at gradients of more than 30°, particularly in the Gôiter couloir or below Mont Blanc du Tacul. In summer, the cover generally stabilises more quickly. Remember to take an avalanche transceiver, shovel and probe and when it is best to wait.

Rock falls
falls, whether natural or caused by other climbers, demand the greatest care, particularly whilst within the
couloir (see over).

The national coordination committee for the development of mountain and climbing activities (Coordination Montagne), created in January 2012, comprises: FFCAM (French Federation of mountain climbing clubs), FFM (French Federation of mountain climbing guides), FFRP (French hiking federation), SNGM (Union of mountain guides), SNGRGE (refuge wardens union), SNAPEC (Union of climbing and canyoning professionals), SNAM (Union of mountain monitors), UCPA (Union of outdoor sports centres), GTA (Grande Traversée des Alpes), MW (Mountain Wilderness), ANCEP (Association of mountain and cross country ski centres), CIPRA, the Petzl Foundation, En Passant par la Montagne, Sportnature.org research network, the Mountain Biker's Foundation.

Texts: Olivier Obin, Niels Martin and Philippe Descamps
 Photos: Mario Colonnelli
 Map: JM Boudou
 Layout and illustrations: Bérengère Collas

This document was devised and produced by the national coordination committee for the development of mountain and climbing activities.

Fondation
 Coordination Montagne
 Maison de la Montagne
 3, rue Raoul Blanchard, 38000 Grenoble.
 +33(0)4 76 51 75 41
 www.coordination-montagne.fr

Supported by:

Reaching the top of MONT BLANC

concern for climbers

Preparation

Equipment

Information

Respect

Freedom

1

Preparation

To attempt Mont Blanc with a good chance of success, experience of high mountains, regular training and preparation are essential. Good guides are also a decisive factor.

In terms of physical preparation for this summit, you should not only be in good physical condition, **but also have tested your level of fitness at altitude.** A first experience of an easier "4,000" and at least one night spent recently at more than 3,000m will give you a better idea of your real condition.

The techniques you will need to know include knowing how to use crampons, how to climb in varied terrain and cross ridges, and being able to adjust your rope (long on the glacier, short along the ridges, etc.).

Psychologically, you must be prepared for bad nights and long days in a fabulous, but hostile, different and changing environment.

Preparing your expedition means studying the terrain by reading maps, topoguides and expedition reports.

A club can help you to find a partner for your expedition, an initial experience and training courses.

A professional guide can advise, prepare and supervise you, taking on responsibility for the expedition.

Finding a club:
www.thebmc.co.uk; www.alpine-club.org.uk; www.americanalpineclub.org

Finding a professional guide:
 In France: www.sngm.fr
 In Aosta Valley: www.guidesaltamontagna.com
 In Switzerland: www.4000plus-vs.ch

2

The hazards of the normal route

The Gôûter couloir is where most of the more serious accidents occur.

From 1990 to 2011, 74 people died and 180 were injured along this route, between the Tête Rousse and Gôûter refuges. Studies are underway to attempt to limit the high risk presented by rock falls. In its current state, mountaineers must be aware of the dangers of this itinerary and be prepared to face them.

Approximately half of all accidents occur along the 100m couloir crossing, and one third along the ridge.

Most are caused by a climber falling, often directly or indirectly related to a **rock fall.** In relation to traffic, there are at least as many accidents on the way down, particularly along the ridge. We also know that two thirds of all casualties were not roped, and that fewer accidents involve people accompanied by a professional guide. A study carried out in summer 2011 concerning the couloir alone estimated that one thousand of the estimated 17,000 crossings of the couloir were affected by rock fall. While rock falls can occur at any time of day or season, certain factors can aggravate or reduce the risk.

The hazards of the normal route

The Gôûter couloir is where most of the more serious accidents occur.

From 1990 to 2011, 74 people died and 180 were injured along this route, between the Tête Rousse and Gôûter refuges. Studies are underway to attempt to limit the high risk presented by rock falls. In its current state, mountaineers must be aware of the dangers of this itinerary and be prepared to face them.

Approximately half of all accidents occur along the 100m couloir crossing, and one third along the ridge.

Most are caused by a climber falling, often directly or indirectly related to a **rock fall.** In relation to traffic, there are at least as many accidents on the way down, particularly along the ridge. We also know that two thirds of all casualties were not roped, and that fewer accidents involve people accompanied by a professional guide. A study carried out in summer 2011 concerning the couloir alone estimated that one thousand of the estimated 17,000 crossings of the couloir were affected by rock fall. While rock falls can occur at any time of day or season, certain factors can aggravate or reduce the risk.

2

Equipment

Part of the expedition means finding the right equipment, remembering the essentials without weighing yourself down with the superfluous.

As well as clothing suitable for high altitude conditions and extremely cold temperatures (including spare gloves), **the equipment is that of a mountaineer on a glacier** (ice axe, crampons, harness, rope, etc.).

Remember that you must be prepared:

- To protect yourself:** helmet, glasses, sun-cream (avalanche transceiver, shovel and probe, depending on your route and local conditions).
- To find your way:** map, topo, compass, altimeter, whistle, headlamp (GPS).
- To eat and drink:** food rations, hot drinks.
- For rescue operations:** crevasse rescue kit (5 karabiners, 3 ice screws, self-locking pulley, 2 rope clamps, sling, cordelette), telephone or radio, appropriate first aid kit.

What about me... can I come too?

3

Risk

Risk aggravating factors:

- Temperatures above zero.
- Dry air: nice, sunny weather.

The most critical time is between 11am and 1.30pm.

Risk reducing factors:

- Temperatures below zero.
- Cloudy weather, with little sun. The presence of snow in the couloir has no influence on the regularity of rock falls. However, it does help to prevent other blocks being pulled down and rocks rebounding along the couloir.

For more information:
www.petzl-foundation.org

How to cross the Gôûter couloir?

As with all the other parts of the routes, assessing the current conditions remains an essential factor when choosing the techniques to be implemented. The main principles to be remembered include:

- Always wear a helmet and stay roped together.**
- Prepare your equipment a good distance before crossing the couloir and not close to its edges, which are highly exposed.**
- Check current conditions before deciding whether or not to cross the couloir.**
- If possible, keep a lookout from a sheltered position for the roped party before you.**
- Do not waste time in the couloir, but do not hurry unnecessarily either.**

If the snow means your crampons hold well, you may not need the cable. Otherwise, use the cable according to recommendations (attached with a suitable technique, using a "floating" karabiner between two members of the roped party).

3

Information

Conditions change quickly in the mountains and the weather changes even faster. To make the right decisions, you have to have the right information and know how to interpret it with a critical mind.

Weather and mountain conditions:

High mountain office: +33 (0)4 50 53 22 08; www.chamoniarde.com
 Météo France weather forecast: (France only) 08 99 71 02 74; www.meteofrance.com
 Aosta Valley weather forecast: (+39) 0165 272 333; www.regione.vda.it
 Swiss mountain bulletin: (+41) 0900900 162 168; www.meteosuisse.admin.ch
 Chamonix mountain gendarmes: +33 (0)4 50 55 33 72

Refuges and huts:

Tête Rousse: +33 (0)4 50 58 24 97; **booking is compulsory:** refugetedeterousse.ffcam.fr
 Gôûter: +33 (0)4 50 54 40 93; **booking is compulsory:** refugedugouter.ffcam.fr
 Tré la tête: +33 (0)4 50 47 01 68; www.trelatete.com
 Gonella: (+39) 0165 885 101; www.rifugiogonella.com
 Monzina: (+39) 0165 809 553
 Cosmiques: +33 (0)4 50 54 40 16
 Grands Mulets: +33 (0)4 50 53 57 10
 Conscrts: +33 (0)4 79 89 09 03
 Durier: +33 (0)6 89 53 25 10

Lifts:

Opening hours: www.compagniedumontblanc.fr
 Aiguille du Midi cable car: +33 (0)4 50 53 22 75
 Bellevue cable car: +33 (0)4 50 54 70 93
 Mont-Blanc tramway: +33 (0)4 50 47 51 83

Tourist information:

Chamonix: +33 (0)4 50 53 00 24; www.chamonix.com
 Les Houches-Servoz: +33 (0)4 50 55 50 62; www.leshouches.com
 Saint-Gervais-les-Bains: +33 (0)4 50 47 76 08; www.saintgervais.com
 Val Montjoie: +33 (0)4 50 47 01 58; www.lescontamines.com
 Vallée d'Aoste: (+39) 0165 842 060; www.lovevda.it
 Valais: (+41) 27 783 2717; www.st-bernard.ch

If an accident occurs

If you see an accident, you must take the usual emergency precautions:

PROTECT

Before doing anything else, prevent further accidents by protecting others. Never move a casualty unless he/she is in direct, imminent danger, in which case, be careful to keep the torso/neck/ head aligned and protect against the cold.

ALERT

Telephone network and radio coverage (150MHz) is generally good in the Mont Blanc area. If neither work, send a messenger (not alone if possible) to inform the nearest refuge or find an alert area. A single emergency number:

112

FIRST AID

While waiting for the rescue team to arrive, you may have to take action quickly to open the casualty's airway, stop bleeding, give CPR if the heart is not beating, secure a conscious or unconscious casualty. These are reactions that must be learned. All mountaineers should have appropriate first aid training. Guide the emergency team by forming a "Y" (yes) with raised arms or by signalling SOS with a torch or mobile phone screen at night. Depending on the terrain, try to clear a landing area. When the helicopter arrives, stay where you are and wait for further instructions.

Useful phone numbers:

Valdôtains alpine rescue: +39 (0)800 319 319
 Switzerland (Rega): 1414 or from abroad +41 333 333 333