



2023 CHAMONIX EXPEDITION COURSE EQUIPMENT LIST

EQUIPMENT CHECKLIST

You **MUST** bring all items listed on the clothing and equipment checklist below. Should you require it your guide can supply slings, locking carabiners, non-locking carabiners, belay devices and prusiks as necessary. The only exceptions are items listed as optional. This is very important. At the same time, you must keep your equipment weight to a minimum and please contact us with any questions you may have about the equipment or clothing on this list.

Body Wear

- ☐ Waterproof shell jacket
- ☐ Waterproof shell pants
- ☐ Down or synthetic insulated jacket
- ☐ Midweight insulated jacket
- ☐ Lightweight fleece top
- ☐ Softshell jacket (optional)
- ☐ Softshell climbing pants
- ☐ Base layer top and leggings x 1 set
- ☐ Underwear

Head Wear

- ☐ Sun hat
- ☐ Warm hat
- ☐ Sunglasses (plus an optional spare pair)
- ☐ Ski goggles
- ☐ Bandana or Buff

Hand Wear

- ☐ Liner gloves
- ☐ Leather gloves
- ☐ Mountaineering gloves

Foot Wear

- ☐ Socks x 2–3 pairs
- ☐ Mountaineering boots (*can be rented*)
- ☐ Snow gaiters (only required if your boots do not have an integrated gaiter)
- ☐ Lightweight shoes
- ☐ Rock climbing shoes (optional—*can be rented*)

Packs & Bags

- ☐ Small duffel/travel bag
- ☐ Mountaineering pack—40–60 litres

Camping Gear

- ☐ Down sleeping bag (*please bring the sleeping bag you intend to take on your high-altitude expedition OR if you have not bought your expedition bag yet, one rated to around -10°C/14°F*)
- ☐ Sleeping bag liner (a requirement for all huts)

- ☐ Inflatable sleeping mat
- ☐ Closed cell foam sleeping mat
- ☐ Camping pillow (optional)
- ☐ Pillow case (if staying in a hut)
- ☐ Ear plugs
- ☐ Water bottle—1 litre
- ☐ Thermos flask (optional)
- ☐ Cup, bowl and spoon
- ☐ Pee bottle

Accessories

- ☐ Hand sanitiser
- ☐ Headlamp and spare batteries
- ☐ Personal first aid kit and medications
- ☐ Personal toiletries
- ☐ Wet wipes (optional)
- ☐ Sunscreen and lip balm
- ☐ Stuff sacks
- ☐ Camera and spare batteries (optional)
- ☐ Personal entertainment (optional)
- ☐ Pocket knife/Leatherman/tool kit (optional)
- ☐ Additional snack food

Climbing Equipment

- ☐ Ice axe—50–66cm (*can be rented*)
- ☐ Crampons (*can be rented*)
- ☐ Climbing harness (*can be rented*)
- ☐ Climbing helmet (*can be rented*)
- ☐ Belay device
- ☐ Locking carabiners x 3
- ☐ Non-locking carabiners x 3
- ☐ Mechanical ascender x 1 (supplied but bring your own if you have one)
- ☐ 4m of 8mm cord for jumar rigging (supplied but bring it if you have it)
- ☐ Long and short prusik
- ☐ 120cm nylon sling
- ☐ Collapsible ski/trekking poles

Travel Gear

- ☐ Casual wear
- ☐ T-Shirt and shorts
- ☐ Passport, documents plus copies

CLOTHING AND EQUIPMENT INFORMATION GUIDE

The following information is a guide to assist you in securing the required clothing and equipment for climbing in the Alps in summer, along with recommended brands. You may have equipment you have used which is different from what is on the list, so please read thoroughly and get back to us with any questions you may have.

Fabrics/Garment Designs/Garment Selection

Today there is a bewildering and ever-changing array of modern technical fabrics and garments on the market. Accordingly, suitable mountain attire can be derived from a wide variety of garments utilized in varying combinations. The clothing on our gear list can be creatively substituted according to your preferences but ensure your choices are functional and adequate. For example, a functional and often utilized garment that does not appear on our list is a vest.

A basic principle in selecting clothing and equipment is to minimize weight and bulk while still ensuring adequate warmth and functionality. It can be difficult to find a brand that has all the features you prefer which means you must make prudent compromises. In the description below and for certain items, we suggest brands and specific products that we have found to be suitable; this is by no means definitive. In some cases, there are multiple suitable brands on the market and hence we do not make specific suggestions.

Appropriate fabrics used in thermal underwear include polypropylene, silk and merino wool. The only cotton garment worn during the climb is your glacier shirt. Warmer insulating materials can be made from fleece, softshell or Primaloft. Varieties of fleece include Windstopper, Wind Pro, Power Shield, Windbloc, Power Dry and Power Stretch. Be aware that fleece garments that incorporate stretch fabric take longer to dry. Softshell garments integrate stretchy nylon fabrics to increase freedom of movement while also providing various degrees of wind and water-resistance in a 'softshell'. They are often lined with a microfleece for increased insulation. Synthetic insulation materials such as Primaloft are advantageous as they are warm even when damp, are water-resistant and quick-drying.

You can read Guy Cotter's thoughts on the ultimate lightweight layering system at: <http://adventureconsultantsblog.com/optimum-layering/>.

BODY WEAR

Waterproof Shell Jacket

Bring a non-insulated, fully waterproof shell jacket with a good hood and water-resistant zip closures. The jacket should be easy to move in with your base and mid-layers on underneath, as well as providing a good overlap with your pants but should not be so long that it restricts access to your harness. Chest pockets are useful to things like snack bars and sunscreen during the day. Pit zips allow for increased ventilation and cooling.

There are numerous waterproof/breathable fabrics on the market such as Gore-Tex, eVent, Futurelight, MemBrain, PreCip, Hyvent and Entrant etc. These fabrics can be expensive but last for years when well looked after.

Shell clothing should be seam-sealed during the manufacturing process or the garment will leak through the stitching. Shell clothing made of PVC or similar is waterproof but does not breath, which means you can become damp from the inside out as moisture cannot escape while you are moving. This style of waterproof shell is not suitable for mountaineering.

We recommend The North Face Pumori FUTURELIGHT™ Jacket, Arc'teryx Alpha ARJacket, Montane Phase XT or Alpine Resolve Jackets and the Rab Muztag GTX Jacket.

Waterproof Shell Pants

Your waterproof shell pants should allow good freedom of movement to enable you to lift your legs easily when worn with your softshell pants and base layer leggings during inclement weather.

Your shell pants should also have $\frac{3}{4}$ or full-length (preferred) zips down each leg to allow you to easily put them on and take them off while wearing your boots and/or crampons.

Bib/salopette styles are warmer as they extend above the lower back/kidney area giving a good overlap with your jacket.

We recommend The North Face Dryzzle FUTURELIGHT™ Pants, Arc'teryx Beta AR Pants, Montane Alpine Resolve Pants or the Rab Muztag GTX Pants.

Down or Synthetic Insulated Jacket

You will need a lightweight down or synthetic insulated jacket for climbing in the Mont Blanc region or enough layers to stay warm at the higher altitudes.

Down jackets that we recommend include The North Face Summit L3 Down Jacket, Patagonia Down Sweater Hoody and the Rab Electron Jacket.

We recommend The North Face Breithorn 50/50 Hybrid or Women's Casaval Hoodie, Rab Xenon 2.0 Jacket, Montane Prism Jacket and the Arc'teryx Atom LT or Atom Hoody; or if you prefer something warmer The North Face Breithorn Hoodie, Rab Electron Pro Jacket, Montane Anti-Freeze Hooded Down Jacket or the Arc'teryx Cerium LT Jacket.



Rab Muztag GTX Jacket



Arc'teryx Beta AR Shell Pants



Rab Positron Pro Down Jacket



The North Face FUTUREFLEECE™ Full-Zip Hoodie



Marmot Scree Softshell Pants



Rab Xenon 2.0 Women's Jacket

Lightweight Fleece Top

A lightweight, air-permeable fleece top made from Polartec Power Stretch, Polartec Power Grid, Polartec Alpha, Pontetorto Tecnopile microfleece or an expedition-weight base layer is a good additional layer to add over your base layers when the temperature drops.

This layer can either be a pullover or a jacket. Hoods are optional but recommended and a zippered chest pocket can be useful for keeping sunscreen and snack bars accessible.

We recommend The North Face FUTUREFLEECE™ Full-Zip Hoodie, Rab Graviton Hoody, Montane Protium Hooded or Protium fleece hoodie, Patagonia R1® TechFace Hoody or the Arc'teryx Delta LT Jacket or Hoody.

Softshell Jacket (Optional)

These jackets are ideal for aerobic activity in light weather conditions. They are wind-resistant, water-repellent and highly breathable. They are used either alone or as an insulating layer under a waterproof shell jacket and models with a hood are best.

Softshell jackets we recommend include the Marmot ROM Hoody, Arc'teryx Gamma MX Hoody, Arc'teryx Gamma SL Hoody or the Rab Vapour-Rise™ Alpine Light, Vapour-Rise™ Summit or Torque Jackets.

Softshell Climbing Pants

Softshell pants are made from stretchy, comfortable, wind-resistant and water-repellent materials that are also highly breathable. They are the perfect active layer for your legs. Your pants should fit comfortably with or without your base-layer bottoms.

Please note that while softshell pants shed light rain and snow, and dry quickly when they get wet, they do not replace your Gore-Tex shell pants, which will still be needed if the weather turns bad.

We recommend The North Face Chamlang, Marmot Scree, Rab Ascendor AS and the Montane Terra Mission Pants.

Base Layer Top and Leggings x 1 Set

Base layers must be made from materials such as merino wool or polyester. No cotton, please!

Tops should have long sleeves and a high neck with a zip. This allows for better temperature control and sun protection than crew neck styles.

Base layer leggings should fit snugly without constriction. These can be worn as a single layer on hot days or under your shell or softshell pants when additional warmth is required.

We recommend Icebreaker, The North Face Summit Series Pro 120 or Pro 200, Rab Syncrino, Earth Sea Sky First Layer and Merino, Arc'teryx Rho, Montane Primino and Smartwool Base Layer Ranges.



Smartwool Women's Merino Quarter Zip Top



Earth Sea Sky Merino Boxers



Rab Logo Beanie

Underwear

Bring enough changes of underwear to keep you feeling fresh. We recommend treated polyester or merino underwear instead of cotton as they wick away sweat from your skin, working with your thermal, fleece and shell layers to keep you dry. They also dry extremely quickly when washed. However, most people use their normal underwear.

We recommend the Icebreaker, Smartwool, Rab Syncrino and Sonic, Earth Sea Sky Merino Underwear Ranges.

HEAD WEAR

Sun Hat

A wide-brimmed soft hat or baseball cap in conjunction with a bandana to protect you from the sun.

We recommend The North Face Horizon Breeze Brimmer Hat.

Warm Hat

Your hat can be wool, merino, Windstopper or fleece. It should extend over the ears and be snug enough not to fly off in a strong wind.

We recommend The North Face Recycled Bones Beanie, Rab Logo Beanie.

Sunglasses

Bring sunglasses with good lenses and side-protection. The lens should be dark enough to withstand the intense reflection from the snow and MUST filter 100% of UVA, B and C radiation. Snow reflects up to 85% of solar radiation and the UV index increases 10% with every 1,000m gain in altitude, so it is of utmost importance that you protect your eyes. We recommend photochromic or category 4 polarized lenses with an anti-fog coating.

If you wear prescription glasses, we recommend you get prescription sunglasses with the above specifications.

If you wear contact lenses, bring a pair of prescription glacier glasses as a backup.

Leashes are essential and nose guards are optional.

We recommend Julbo, Smith, Bollé, Oakley and Adidas Sunglasses.

Ski Goggles

High-quality goggles for sun and wind protection at altitude. The lens should offer visible light transmission (VLT) of no more than 30%. Those with light-sensitive eyes may wish to use a darker lens and photochromatic models are ideal for use in changing conditions.

If you wear prescription glasses, please ensure they fit under your goggles.

We recommend Oakley, Bollé, Adidas, Julbo and Smith Ski Goggles.

Bandana or Buff

A fleece, merino wool or silk neck gaiter, neck warmer or Buff is a great idea for added warmth and sun protection. A buff makes a good face mask in windy cold weather and can replace a balaclava, when used with a warm hat.

We recommend the Adventure Consultants Branded Buff, available from our office.

HAND WEAR

Liner Gloves

These very thin, lightweight finger gloves form a base layer and are worn whenever climbing. On hot days, they protect against sunburn and can be worn under heavier gloves or mittens on colder days.

Ensure the gloves fit closely to allow you to handle ropes and carabiners easily. Wearing liner gloves will prevent cold injuries in situations requiring full finger dexterity. They can also be worn doubled up and should fit underneath your other glove combinations.

We recommend Budget polypropylene gloves, available from most hardware or safety stores, Montane Dart Lightweight Liner or the Rab Stretch Knit or Flux Liner Gloves.

Leather Gloves

A leather palmed glove that is dexterous is invaluable for the days when climbing on rock or on the warmer mountain days, where you still want hand protection.

We recommend the Marmot Infinium Windstopper Gloves, Rab Infinium Axis Gloves, Black Diamond Crag Gloves and the Outdoor Research Direct Route II Gloves.

Mountaineering Gloves

Gloves with removable insulated liners are extremely versatile as you can wear them with or without the liners depending on the temperature.

A good model will have abrasion-resistant palms, shaped fingers, a waterproof outer and an insulating removable liner. Cheaper models are not waterproof so it is worth investing in a good quality pair.

Please ensure that you can fit your liner gloves underneath your mountaineering gloves.

Mountaineering gloves are not as warm as expedition mitts but have the advantage of being more dexterous. Because of the time that you will spend dealing with ropes and equipment, the dexterity your gloves provide will be extremely useful.

We recommend that you attach wrist loops to your gloves to prevent them from being dropped or blown away by the wind when you take them off.

We recommend Black Diamond Guide Gloves and the Outdoor Research Alti II Gloves.



Adventure Consultants Branded Buffs



Outdoor Research Direct Route II Gloves



Black Diamond Guide Gloves

FOOT WEAR

Socks

Have at least two pairs of socks with you for the trip. Socks made from wool or a mix of fibres with good thermal properties are the best choice.

Various combinations suit different people with some people preferring to wear just one pair of socks in their boots, while others wear two; a thicker pair over a thin liner sock.

Try your socks out with your boots before your trip to ensure a good fit as this will help minimise cold toes while you are climbing.

We recommend Smartwool, Bridgedale, Darn Tough and Thorlos Socks.

Mountaineering Boots

An insulated leather mountaineering boot with a fully rigid sole is ideal for climbing in Europe. Ensure that they are waterproof, supportive and warm enough for snow and ice climbing. The boots must have a reasonably sized welt on the back and front to accept 'clip-on' crampons.

Three-quarter shank boots do not give enough support the extended periods of snow and ice climbing as they are too flexible. This style of boot is not generally insulated so they are not warm enough, but some styles are excellent for rock-based mountaineering routes elsewhere in the Alps.

While it is possible to use plastic boots, they have become somewhat outdated, are very clumsy to wear and will not perform well.

New-generation synthetic double boots with removable liners can also be used for higher elevation ascents around Mont Blanc or when it is very cold. However, single leather and synthetic boots are the status quo for summer mountaineering in the Alps.

The right fit is more important with leather boots than for plastic boots, so make sure they are worn in by doing several multi-hour hikes on hills and rough terrain before you wear them in the mountains.

Your boots are perhaps the single most important piece of equipment and can make or break a trip depending on whether they fit well or not, so please ensure your boots are of high-quality and fit your feet well.

We recommend the Scarpa Mont Blanc Pro GTX and Phantom Tech, Lowa Alpine SL, La Sportiva Nepal Evo GTX, G5 Evo and the Trango Tower Extreme GTX Mountaineering Boots.

Snow Gaiters (Only Required, If Your Boots Do Not Have an Integrated Gaiter)

Calf-length gaiters with a velcro or zip closure at the front keep the snow out and prevent you snagging your trousers with your crampons. They need a good tie-down system underneath the in-step to stop them creeping up at the heel.

We recommend the Sea to Summit Quagmire eVent Gaiters or the Rab Latok GORE-TEX® Pro Gaiters.



Smartwool PHD Outdoor Mountaineer Socks



La Sportiva Nepal Evo GTX Mountaineering Boot



La Sportiva TX4 Approach Shoe



The North Face Base Camp Duffel



Arc'teryx Alpha AR 35 Mountaineering Pack



Marmot Lithium Sleeping Bag

Lightweight Shoes

Lightweight shoes are handy for walking around in at the end of the day and for the walk-out down the valley. Believe it or not, a pair of Crocs can be good lightweight option for using in the huts.

We recommend the Salomon XA Pro 3D V8, Salewa Wildfire or the La Sportiva TX4 Shoes.

Rock Shoes (Optional—Can Be Rented)

Bring these with you, if you have them as they are used on training days and on the non-mountain days. If you don't own a pair, these can be rented locally if needed.

PACKS & BAGS

Small Duffel/Travel Bag

This is for storing clothing and items left in town, while you are out climbing. Bring a lock and if you're particularly adept at loosing keys, please make sure to buy a combination lock and set to an easy to remember number!

We recommend The North Face Base Camp Duffels and Osprey Transporter Duffels.

Mountaineering Pack—40–60 Litres

There are many models available which are suitable. Required features include a volume of about 40–60 litres with crampon and ice axe attachment points. Avoid trekking style packs with bulky side pockets.

We recommend The North Face Cobra 65, Black Diamond Speed 50 or Mission 55, Rab Ascendor 45–50L or Osprey Mutant 52 Mountaineering Packs.

CAMPING GEAR

Down Sleeping Bag (Please Bring the Sleeping Bag You Intend to Take on Your High-Altitude Expedition)

Bring the down sleeping bag that you intend to use on your high-altitude expedition. This will give you good experience in carrying it and using it in a snow camping situation.

The sleeping bag should be rated from $-29^{\circ}\text{C}/-20^{\circ}\text{F}$ to $-40^{\circ}\text{C}/-40^{\circ}\text{F}$ depending on the expedition that you are going on. A down bag will typically have 700g or more of down fill. Synthetic bags are too heavy and bulky. If you haven't bought your high-altitude sleeping bag yet, then bring a down sleeping bag rated to around $-10^{\circ}\text{C}/14^{\circ}\text{F}$.

Your sleeping bag should be long enough so that your feet do not press hard against the foot of the bag, as this will mean the insulation is compressed and it will lose heat quickly. The sleeping bag also needs to have enough room for you to fit in with lots of layers on. A liner can add extra warmth and helps to keep your bag clean.



Sea to Summit Silk Sleeping Bag Liner



Therm-a-Rest NeoAir XTherm Inflatable Sleeping Mat



Adventure Consultants Branded Nalgene 1 Litre Wide Mouth Bottles

Please note that the ratings quoted above are the sleeping bags Limit temperature. If you are a cold sleeper, consider a warmer bag. If you are using the EN temperature ratings when choosing a sleeping bag, a general rule is most women or cold sleepers should tend towards the Comfort rating and most men should tend towards the Comfort Limit rating. Sleeping bags that do not have the EN rating tend to be rated at their Comfort Limit temperature.

Sleeping Bag Liner (A Requirement For All Huts)

These are for use with the blankets supplied in the huts.

We recommend Sea to Summit Sleeping Bag Liners.

Inflatable Sleeping Mat

We suggest a lightweight, full-length model with a high R (warmth) value for use in conjunction with a foam mat. Bring a repair kit also to repair punctures or valve failures.

We recommend the Therm-a-Rest NeoAir XTherm and NeoAir XTherm MAX, or the Exped Dura 6R Mattresses.

Closed Cell Foam Sleeping Mat

A full length closed cell foam sleeping mat that will be used to increase comfort and the warmth of your air mattress, as well as protect it from damage.

We recommend the Therm-a-Rest Z-Lite SOL Foam Sleeping Mat.

Camping Pillow (Optional)

Bring a blow up or very small compressible pillow to make your sleep more comfortable.

We recommend the Therm-a-Rest Compressible Pillows or the Sea to Summit Aero series.

Pillow Case (If Staying in Huts)

Bring a clean pillow case to use with the pillows supplied in the mountain huts.

Ear Plugs

A handy way to get a night's sleep when sharing a tent or a room with a snorer!

Water Bottle—1 Litre

Wide-mouthed plastic bottles are a versatile option. Bladder style hydration systems are good in theory but can often freeze and are easily punctured. Metal bottles are not suitable due to the extreme temperatures experienced (cold air temperatures and hot liquids) and narrow-mouthed bottles are difficult to fill and clean.

We recommend the Nalgene 1 Litre and 500ml Wide Mouth Bottles.

Thermos Flask (Optional)

You can bring an insulated vacuum flask made from stainless steel of about 500ml–1 litre in capacity for hot drinks on the go.

We recommend Primus and Lifeventure Vacuum Bottles.

Cup, Bowl and Cutlery

Plastic Mug—an insulated mug with attached snap on lid is a great idea.

Bowl—A deep 2–3 cup capacity bowl.

Cutlery—Lexan or other good quality lightweight plastic.

We recommend the Sea to Summit and GSI Tableware and Cutlery.

Pee Bottle

Pee bottles are just water bottles with a different job. It is a good idea to have a different colour and shape, or mark the bottle in some way (e.g. with strips of duct tape), so that you do not confuse bottles in the dark. A larger 1.5 litre size is recommended.

Pee funnels are available for women to allow you for peeing without exposing any bare skin to the elements but require some practice to use successfully.

We recommend the Nalgene 1.5 Litre HDPE Wide Mouth Bottle and Sports & Travel Freshette for women.

ACCESSORIES

Headlamp and Spare Batteries

Headlamps are more versatile than hand torches as they allow you to keep your hands free. High-output LED headlamps are superb as they provide an excellent level of lighting and are also very lightweight. We recommend hybrid headlamps that run both on AAA or AA non-rechargeable batteries and rechargeable batteries.

Bring two NEW sets of lithium or alkaline batteries for the trip.

We recommend the Petzl Actik Core, LED Lenser MH5 and the Black Diamond Storm 450 Headlamps.

Personal First Aid Kit and Medications

You should always carry a basic first aid kit including blister tape, second skin, gauze pads, crepe bandage and painkillers.

Include any personal medication you may require and be sure to inform our office and your guide, if you are on prescription medicine.

Store your first aid kit in a waterproof container, if possible and if you do not have one of these, a plastic bag inside a nylon stuff sack usually works well.



Sea to Summit Delta Camp Set



Personal First Aid Kit



Petzl Actik Core Headlamp

Personal Toiletries

Bring a small toilet kit—flannel, some soap, toothpaste and toothbrush. Keep it light and do not bring anything that isn't absolutely necessary.

Sunscreen and Lip Balm

Conditions in the mountains can be extreme, so you will need a bottle or tube of SPF 50 sunscreen.

Lip balm (with SPF 15 or higher) is also worth carrying in your pocket for application during the day.

Sunscreen loses SPF rating over time; we strongly recommend bringing brand-new sunscreen.

Wet Wipes (Optional)

Baby Wipes or similar pre-moistened cloth wipes for personal hygiene. These antibacterial wipes are excellent for cleaning hands and other hygiene issues, whilst away from civilisation. Just a few in a small zip lock bag will suffice.

Stuff Sacks

Lightweight nylon bags with draw cords to store spare clothes, etc are very useful for organising gear in your pack or when you're in a hut. We suggest bringing 2–3 small or medium sized sacks.

We recommend the Sea to Summit Stuff Sacks and Dry Bags.

Camera and Spare Batteries

Bring along your choice of either a SLR or fully automatic camera. Be aware that batteries can be a problem with cold temperatures, so it is a good idea to bring spare sets of batteries and storage cards.

Personal Entertainment (Optional)

Feel free to bring your phone, MP3 player, Kindle or a good book for any downtime.

Pocket Knife/Leatherman/Tool Kit (Optional)

Choose the Swiss Army style, Leatherman or equivalent.

We recommend Victorinox Knives and Leatherman Multi Tools.

Additional Snack Food

Bring any personal favourites that you wish. We recommend you bring at least 4 energy gel sachets for instant carbohydrate replacement on the climb. You may also wish to bring electrolyte powder to mix in your water bottles.



iPhone



Lip Balm and Sunscreen



Sea to Summit Stuff Sacks



Petzl Summit Evo Ice Axe



Grivel G12 New-Matic Crampons



Mammut Zephir Altitude Climbing Harness

CLIMBING EQUIPMENT

Ice Axe—50–66cm

For general alpine climbing, you will need a straight shafted axe between 50–66cm long, depending on your height. A longer axe is more helpful on the moderate ground and even the most difficult climbs have approaches and descents for which this is helpful. Short axes with curved shafts and moulded handgrips are fine on harder technical ice climbs, but not suited for the majority of alpine climbing.

The head of the axe should be comfortable to hold when using the axe as a walking stick and not have any protrusions which will dig into your hand.

The pick can be a normal curve or a 'reverse curve'. The reverse curve picks hold better on steep ice but they are more difficult to self-arrest with. Some ice axes come with replaceable picks, so it pays to check that the bolts are tight before each climb.

An adze is still used a lot for chopping steps in the ice and snow, so ensure that the adze has a good angle to do so. Some adzes are too drooped to chop steps easily and instead are designed for climbing steep unconsolidated snow.

Shafts are made from metal, wood or fibreglass, and some have rubber handgrips. A rubber grip at the base of the shaft makes it easier to hold when self-arresting or climbing steeper ground, as well as keeping your hand warmer. The shaft must be smooth enough to be forced into the snow and should not have protrusions which can get caught up on a crusty snow surface.

The spike at the bottom of the tool should be sharp enough to penetrate hard snow. A wrist loop is needed for support when climbing on steeper ground. The correct length allows you to hold the bottom of the shaft with the sling tight.

We recommend the Petzl Summit Evo, Grivel Air Tech Evo G-Bone, Blue Ice Bluebird and Black Diamond Venom Ice Axes.

Crampons

Steel crampons with a toe harness and heel bail are best as they fit a variety of boots and are easy to put on in the cold. Ensure your crampons are fitted with 'anti-balling' plates and avoid technical ice climbing crampons with vertical front points.

Please check that the set-up is secure on your boots and that the fastening strap is long enough. Do not cut or trim your crampon straps under any circumstances.

We recommend the Petzl Vasak Leverlock Universel, Grivel G12 New-Matic and Black Diamond Sabretooth Clip Crampons.

Climbing Harness

Bring a lightweight alpine climbing harness and this harness must have gear loops, adjustable leg loops and waistband large enough to fit over all your clothing layers. The waistband and leg loops should be able to completely separate. Do not bring a harness with fixed leg loops.



Black Diamond Vapor Climbing Helmet



Black Diamond RockLock Screwgate Carabiner



Petzl Ascension Jumar

We strongly recommend newer models with a belay loop and buckles that do not require you to “doubling back” your waist belt.

We recommend the Petzl Aquila or Altitude, Arc’Teryx AR-395A, Black Diamond Technician or Couloir, Blue Ice Choucas Pro, Edelrid Prisma Guide, or the Mammüt Zephir Altitude Climbing Harnesses.

Climbing Helmet

Helmets designed for climbing are lightweight and designed to deflect falling ice and rocks. They also protect the head in a fall. All helmets must meet industry standards for impact protection and with the standard for overhead protection being greater than the side-protection standard.

There are two kinds of climbing helmets available today—hardshell helmets and shelled foam helmets. Helmet makers use different terms for each type of helmet, so focus instead on tell-tale construction details like shell hardness, foam thickness and the number of vents.

Plastic becomes brittle as it ages so ensure your helmet for the course is no more than 4 years old.

Check the size and make sure that it will adjust for when you are wearing your hat underneath.

We recommend the Petzl Sirocco or Meteor, and the Black Diamond Vapor or Vector Climbing Helmets.

Locking Carabiners x 3

Bring 2 lightweight twist lock and 1 pear-shaped screw gate carabiners. Do not buy ball lock carabiners.

We recommend the Petzl and Black Diamond Carabiners.

Non-locking Carabiners x 3

Bring 3 lightweight non-locking carabiners.

We recommend the Petzl and Black Diamond Carabiners.

Mechanical Ascender x 1 (Supplied, But Bring Your Own If You Have One)

Bring either a left or right-handed mechanical ascender for learning to climb fixed ropes. When choosing an ascender, go for one that is comfortable in your hand.

We recommend Petzl Ascension, Grivel A&D and Black Diamond Index Ascenders.

4 Metres of 8mm Cord for Jumar Rigging (Supplied, But Bring It if You Have It)

You will require a leash to attach your mechanical ascenders to your harness. Our preference is to improvise leashes from cord or webbing.

Leashes should be no longer than the distance from your tie-in point to your hand on an outstretched arm so that when you are resting on the rope, you can still reach the ascender.

You will also use the webbing or cord to make a lanyard. We will show you how to tie leashes directly between the ascender(s) and harness to save using any carabiners.



8mm Accessory Cord



Edelrid Sewn Tape Slings



Black Diamond Expedition Poles

The cord **MUST** be 8mm as the cord will be used to tie around a lot of sharp rock.

Prusik x 2

You will need to bring one long (3.2m untied) and one short (1.6m untied) prusik. These are used for various activities from abseiling, tying your pack on, to using as a back-up ascender, if you have dropped yours. This can be made from 6mm cord.

120cm Sling

Bring along a 120cm sewn/tied length of sling.

Collapsible Ski/Trekking Poles

Compulsory as these are great for walking on snow or to save the knees on long days. Snow baskets are a worthy addition for when walking through deep snow.

We recommend Leki and Black Diamond Trekking and Ski Poles.

TRAVEL GEAR

Casual Wear

Bring a selection of casual clothes to wear on the inbetween days, when not in the mountains and at the end of the trip.

T-Shirt and Shorts

Cool clothing to wear when doing activities in the valley, e.g. when trekking or rock climbing.

Passports, Documents and Copies

You will be in at least two countries when around the Mont Blanc region.

NOTE: If you found you have forgotten anything when you arrive in Chamonix, do not worry as there are plenty of stores that specialise in mountaineering equipment. Your guide will be happy to help you with any purchases you would like to make. If you have any questions, please ask.