



Kilimanjaro – Wildlife Safari Personalized Tour

Tanzania Safari Tours & Packages:

Tanzania is a country of legends, of Great White Hunters and the intrepid explorers of the past. Tanzania, the largest country in East Africa, offers possibly the **ultimate exotic adventure**, in a spectacular world. Legendary names, Serengeti, Kilimanjaro and Ngorongoro reach into the ancient memory, instilling awe.

Tanzania's extensive networks of National Parks are working to protect and conserve an area that affords one of the **highest concentrations of wildlife** in the world where literally millions of animals eternally roam in search of grassland. This safari makes the most of varied programmed in Northern Tanzania in a trip which offers the full flavor of the sights and experiences and obviates any backtracking. See and feel the real Africa. Enjoy privacy and freedom in an area with abundant wildlife.

Tanzania Activities

Tanzania safari activities include a trek to the top of Mt Kilimanjaro, hot-air ballooning over the Serengeti, swimming with Dolphins off the island of Zanzibar and snorkeling and scuba diving around the coral reefs of nearby Pemba and Mafia.

At MEM Tours and Safaris we are passionate about sharing the land we know and love... let us guides you to this African treasure.

Top 5 things to do and places to see

- Migrations in the Serengeti
- Unique eco system of the Ngorongoro Crater
- Olduvai Gorge
- Mount Kilimanjaro
- Spice islands and Zanzibar

IMPORTANT THINGS TO KNOW (also, see the other travel tips found on the FAQ site)

You will need visas for entry to Tanzania. Though you can get these in right at the point of entrance, your travel will go smoother if you get them in advance through the respective embassies. (Please check at <http://www.tanzania.go.tz> if you will need VISA or for closest place you can apply VISA you may also download VISA form from this site)

Make a photocopy or list of the following items: Passports (including the page with the visa stamped in them and the pages with photos and data), plane tickets, yellow booklet showing your yellow fever vaccination, list of all medications you might require, listing of all travelers' cheque numbers, list of serial numbers for cameras, etc. Keep this list someplace apart from where you keep these other items.

Keep track of your passport above all. Loss of a passport can destroy your trip and cost considerable money during the time required to replace it.

On your international flight, pack as if the airline might lose your bags. Keep things you will need right away in your carry-on. It seldom happens, and almost always the bags arrives a couple of days later, but this way, if the bags do not arrive with you, you will be able to continue on your safari while the airline finds them.

WHAT TO DO WHEN YOU'RE BAGS GET LOST AT THE AIRPORT

We naturally hope you don't lose your bags, but it does happen. If your bags do not show up, do the following:

Report the problem to your air carrier INSIDE THE AIRPORT at the Baggage Claim - before passing the CUSTOM -and fill out the required paperwork.

Request compensation for your inconvenience (often \$50.00 for emergency purchases and a bag with simple toiletries and a tee shirt)

Ask them when they expect the bag will arrive and tell them where you will be based on your itinerary.

LEAVE THE KEYS AND/OR COMBINATIONS WITH THE AIRLINE so they can clear the bags through customs.

Ask the airline to go with you to advise Customs Officer that bags were lost so there will be no problems further in getting your bags cleared when they arrive.

To make it easier please provide this address to the Airline

MEM Tours and Safari LTD
Station Road Opposite, Nakumatt Supermarket Main Entrance,
P.o Box 146 - Moshi
Tel: + 255 27 2754234 / 2750669
Cellphone: +255 754 482 791 / 764 388 399
Att: Mohammed O.Shabhay

Leave your claim form with our Airport representative so that we can collect your bag on your behalf from Airline.

You must bring:

- Valid passport (International arrival)
- Valid visa - if required (see section pertaining to your trip)
- One other picture ID (e.g. driver's license)
- Photocopy of passport page to carry in wallet
- Air tickets
- Expense money
- Recommended inoculations
- Travel insurance

MEM Tours and Safaris will ensure that you're Tanzanian Safari holiday plans are taken care of to ensure your peace of mind.

Theory about preparation for Climb:

Get FIT

Break in your hiking boots and walk the dog; climb stairs; hike some hills with a pack on -- walking is the best way to prepare yourself for the long hike up Kilimanjaro. You need to build up stamina. It's a good idea to get a basic medical check-up before you come. You don't want to be dealing with an ingrown toenail or worse at 18,000 feet.

Climbing Mount Kilimanjaro is a physical undertaking, so you should prepare yourself accordingly with a trekking training program. Being in good shape is important in many respects. Obviously, strong, conditioned legs make it easier to walk uphill and downhill for sustained periods of time. General aerobic fitness allows the body to function efficiently with less oxygen. And a fit body is more likely to withstand the stress of consecutive days of hiking and camping. Finally, a positive mental attitude can work wonders for you when fatigue and doubts arise.

The best exercise that you can do to prepare for Mount Kilimanjaro is hiking.

There are training regimens on other operator's sites which entail strict, extensive, cross-training programs, featuring hiking, running, biking, swimming, weight training, etc. Do not be alarmed by this. Those programs are excessive and unnecessary to sufficiently prepare for climbing Kilimanjaro. The best and perhaps only exercise you need to do is to hike - period. After all, that is what you will be doing on the mountain. Ideally, you should try to hike as much as possible on hills or mountains to simulate ascension on Mount Kilimanjaro. Doing day hikes is superb training. For those who do not have access to trails, but have membership to a gym, you can train very productively on a stair master machine. If you have no access to trails or a gym, then try to walk as much as you can, with extended walks on the weekends.

You should start training for climbing Kilimanjaro at least two months prior to your departure.

If you've never hiked before, you should start with shorter time intervals, a slower pace, and no weight (in your day pack) and then gradually increase all of the above as your fitness level improves. Remember that on Mount Kilimanjaro, you will walk slowly for prolonged periods, and carry probably no more than 20 lbs in your day pack. Therefore, in your training, it is better to increase the time interval/distance and keep a slow pace than to shorten the time interval/distance and increase the pace. Try to train three times a week, for at least one hour per session, at a minimum. If you can do day hikes for four to six hours, with moderate elevation changes (~1,500 ft/460 m) while carrying a 20 lb pack, or if you can walk on a Stairmaster for 1-2 hours, at 30 steps per minute while carrying a 20 lb pack, then you're probably ready for the real thing.

Your longest/hardest workouts should be performed two to four weeks before your departure. For the last two weeks, you should taper off your training and in the final days, rest so that your body has time to recover before your actual climb. In addition to walking/hiking, you can also supplement your training with exercises such as running or cycling, which will increase your aerobic capacity.

It is imperative that during Kilimanjaro training, you wear the boots that you intend to climb with so that they are sufficiently broken-in (to prevent blisters). Additionally, you should wear the day pack you intend to carry so you're your shoulders/back/hips get used to the points of contact and weight (to minimize chafing and soreness).

Lastly, physical training is just one part of getting in shape. If you have an unhealthy lifestyle, use the climb as your motivation to change. Eat more fruits and vegetables. Reduce your red meat consumption. Don't drink or smoke. Get eight hours of sleep per night. Don't worry. Be happy.

Arrival in Tanzania

*Day 1 and Day 2: Moshi to Machame 25Km (16 miles) 30 min drives.
Elevation 1200M (3,936 Ft)*

After arrive in Moshi you will be taken strait to **Aishi Protea Hotel**. You will have the opportunity to go over any last minute questions, have the crew check your gear as well suggest to you what to take on Kilimanjaro. At this point you will also have the chance to leave a bag behind with anything you don't need on the Kilimanjaro. Your left-behind gear will be secured at the Hotel as you will be staying the same place after Kilimanjaro Climb as well this Hotel we will stay for two nights. Stay overnight at **Protea Hotel (Bed and Breakfast)**

Our climb up Mt. KILIMANJARO is a rugged trek to the top of Africa - UHURU PEAK (19,340 ft.) in Tanzania. With us, you can climb of six either different route - We recommend this route Lemosho Glades due to over crowd on other routes. These are few of the most dramatic routes up Kilimanjaro and are rarely used. Only 9% of the people climbing Kilimanjaro use these routes. 85% use the over-used Marangu route and Machame route. The last 6% climb the technical routes. Lemosho is a day longer than Machame, and takes us through wildlife habitat. On both these routes, we traverse some of Kilimanjaro most striking and least traveled landscapes, including the base of Kibo Peak's dramatic south-facing glaciers. On all our routes we camp in MEM's rugged mountain tents every night, and dine on great meals prepared by our Cooks and Guides

The overall height difference between Lemosho gate, National Park entrance and the summit of Uhuru peak is 4200 meters (13,776 ft) and the distance is In all a good 68 km (42.50 miles) trek with the bonus of an ascent of one of the world's finest 5000 meter peaks

Lemosho Route: This is one of two routes that approach Kilimanjaro from the far west side. It takes a long and lightly traveled route across the Shira plateau to approach the base of Kibo. The trek on the Lemosho Route starts a few thousand feet lower in elevation than the neighboring Shira Route, and is thought to be the better for the sake of altitude acclimatization.

The third day: continues through increasingly sparse trees and bushes into moorlands. Picturesque hanging mosses often cover trees and offer an ethereal quality to the landscape. The day finishes with Shira Camp, which is on a small plateau in the high moorlands, and features views of Kibo in the northwest and Mount Meru towards the east. White necked ravens can be seen throughout the day. There is also a set of small caves a short walk from the campsite known as the Shira Caves.

We will come across of the beautiful view of the garden of the *Senecias* with part of Kibo in the background.

The fourth day: starts in the moorlands and moves into alpine desert, with fewer trees and more rocks. The highest point is the base of the Lava Tower, after which the trail descends into the Barranco Valley. More vegetation is present in this zone, especially the area just before the campsite. This area is called the 'Garden of the *Senecias*' which features many of the huge *Senecias* plants. Shorter lobelia plants are also present.

The fifth day: starts with the ascent of the Barranco Wall, which is considered a scramble in climbing terms. The top of the Wall has attractive vistas of Kibo and the surrounding landscape. The trail continues with many up and down sections across small streams and rivulets, and finally crosses the Karanga River to the Karanga campsite.

The sixth day: follows the path up and across a rocky zone, finishing at the high camp Barafu. Very little vegetation can be found on the inhospitable terrain. A field of sedimentary rocks litters the ground like many broken mirrors. (Note - the 7 day trek omits the Karanga campsite, and climbers continue directly to Barafu on the same day.)

The summit is usually attempted on the very early morning of the 6th day (around midnight). Barafu is also used as a summit campsite for the Umbwe route. Climbers typically take somewhere between 5-7 hours to ascend, using headlamps and cold weather gear. The first milestone is Stella Point (18,652 ft/5,685 m), which is on the crater rim. Following Stella Point, the trail continues for another 30 mins to the summit - Uhuru Peak. The descent back to Barafu takes roughly 4 hours. Some climbers 'scree slide' down the slope, which entails skidding/running down the loose gravel at medium speed. From Barafu, climbers typically take a short break, and continue downwards

Day 3: LONDOROSI GATE to MTI MKUBWA (8,692 ft.)*Hike time: 3hrs, Elevation Change + 650 m (2,132 ft)**Estimation distance: 10 km (6 miles) Final Elevation 2650 m (8,692 ft.)*

| | | | |
|----------|---------------------|----------------------------|-----------------------|
| Waypoint | Lemosho Glade trail | S 3° 00.121' E 37° 08.692' | 7,832 ft GPS Altitude |
|----------|---------------------|----------------------------|-----------------------|

A three-hour drive from our Hotel in Machame brings us to the Londorossi Park Gate located on the western side of Kilimanjaro. At the gate, we pick up our game ranger who will accompany us, as we might encounter elephants and buffaloes during our trek. We drive to the trailhead at Lemosho Glades and start our trek through the rain forest. In places, the vegetation is so untouched that it grows right across the narrow track. The flora and fauna are richer here than on the other more popular routes through the rain forest. Our trek today will be along a little used track known as Chamber's Route. In about 3-4 hours, we reach our camp in the rain forest at Mti Mkubwa (Big Tree).

Day 4: MTI MKUBWA to SHIRA ONE CAMP (11,841 ft.)*Hike time: 5 – 6 hrs, Elevation change + 950 m (3,116 ft)**Estimation distance: 12 km (7.5 miles) Final Elevation 3,610 m (11,841 ft)*

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|----------|------------|----------------------------|-----------------------|
| Waypoint | Mti Mkubwa | S 2° 59.801' E 37° 10.497' | 9,160 ft GPS Altitude |
|----------|------------|----------------------------|-----------------------|

After breakfast, we start the climb cross the remaining rain forest towards the giant moorland zone. Today is a full day trek with an altitude gain of 2,000 ft. A great lunch stop is One, a beautiful valley just outside the Shira Crater at around 10,000 ft. After lunch, we cross into the Shira Caldera, a high altitude desert plateau that is rarely visited. Shira is the third of Kilimanjaro volcanic cones, and is filled with lava flow from Kibo Peak. The crater rim has been decimated by weather and volcanic action. Today you will get your first close views of Kibo - the dramatic summit of Kilimanjaro.

Day 5: SHIRA ONE CAMP to SHIRA TWO CAMP (12,628 ft.)*Hike time: 5 to 6 hrs Elevation change: + 240 m (787 ft)**Elevation distance: 5 km (3 miles) Final elevation: 3,850 m (12,628 ft)*

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|----------|----------------|----------------------------|------------------------|
| Waypoint | Shira One Camp | S 3° 00.769' E 37° 13.747' | 11,500 ft GPS Altitude |
|----------|----------------|----------------------------|------------------------|

After breakfast continue hike east across the Shira Plateau past the Shira Cathedral towards Shira Two camp. We only gain 700 feet in elevation - this allows us to acclimatize slowly to the altitude. The views of the plateau are nothing less than spectacular.

Day 6: SHIRA TWO CAMP to BARRANCO HUT (12,956 ft.)*Hike time: 5 hrs, Elevation changes: +100 m (328 ft)**Estimate distance: 6 km (4 miles) Final elevation: 3950 m (12,956 ft)*

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|----------|------------|----------------------------|------------------------|
| Waypoint | Shira Camp | S 3° 03.898' E 37° 16.567' | 12,860 ft GPS Altitude |
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Today is the last of the "easy days". It is about a 7-hour superb hike. We pass the Lava Tower, around the southern flank of Kibo, and slowly descend into the spectacular Barranco Valley, interspersed with giant lobelia and senecia plants. After arriving at our most spectacular campsite, everyone stands in awe at the foot of Kibo Peak, looming high above, on our left. Our camp is only 465 feet higher than where we were last night, but during the day, we will have climbed to just over 14,000 feet. This is one of our most valuable days for acclimatization.

Day 7: BARRANCO HUT TO KARANGA VALLEY (13,743 ft.)*Hike time: 3.5 hrs, Elevation change: +240 M (787 ft)**Estimate distance: 4km (2.5 miles), Maximum elevation: 4190 m (13,743 ft)**Final elevation: 4000 M*

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|----------|--------------|----------------------|-----------------------|
| Waypoint | Karanga Camp | S3 06.655 E37 21.165 | 12940 ft GPS Altitude |
|----------|--------------|----------------------|-----------------------|

On the eastern side of the valley, across the stream is the Barranco Wall - a 950 ft. barrier of volcanic rock. Although it is tall and looks steep, it is very easy to climb. This is our first challenge of the day. The views from the wall are nothing less than magnificent. The rest of the day is spent skirting the base of Kibo peak over our left shoulder. We descend down into the Karanga Valley, where we rest up for the night before the tough climb up to Barafu hut.

Day 8: BARAFU CAMP (15,088 ft.)*Hike time: 3.5 hrs, Elevation changes: +410 M (1,345 ft)**Estimate distance: 4km (2.5 miles), Final elevation: 4600 m (15,088 ft)*

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|----------|-------------|----------------------|-----------------------|
| Waypoint | BARAFU CAMP | S3 05.956 E37 22.690 | 15239 ft GPS Altitude |
|----------|-------------|----------------------|-----------------------|

First thing, you will be making a steep hike out of the valley. The air starts getting quite thin, and you will be running short of breath. It is a tough, but rewarding uphill to the rocky, craggy slopes at the camp. Barafu means, ice in Swahili, and it is extremely cold at this altitude. So, go to bed early because we will be waking you at midnight for the final leg to Uhuru Peak.

Day 9: BARAFU to UHURU PEAK (19,340 ft.) to Mweka CAMP (9,550 ft.)**SUMMIT DAY!***Summit time: 7 hrs, Elevation change: +1300 m (4,264 ft)**Estimate distance: 5km (3 miles), Final elevation: 5896 m (19,340 ft)**Descent time: 5 hrs, Elevation change: -2800 m (-9,184 ft)**Estimate distance: 12km, Final elevation: 3100 m (9,550 ft)*

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|----------|--------------------|----------------------|-----------------------|
| Waypoint | Kibo crater rim | S3 04.682 E37 21.759 | 18471 ft GPS Altitude |
| Waypoint | KILIMANJARO SUMMIT | S3 04.585 E37 21.240 | 19098 ft GPS Altitude |

Dress warmly, because we start climbing around midnight, on the steepest and most demanding part of the mountain. The moon, if out, will provide enough light, and we will reach the Crater rim by sunrise, after a 7 hour hike, and welcome a new dawn.

From the Crater rim, rugged Mawenzi Peak is a thrilling sight, with the Kibo saddle still in darkness beneath you, and the crater's ice-walls looming ahead. We now continue to Uhuru Peak (1-2 hrs.) This is the highest point in Africa, and the world's highest solitary peak (19,340 ft). It is the best view in Africa!

The descent is invigorating. It is a good idea to have a little rest once in awhile as you continue down back to Barafu Camp (4 hours), and then down the Mweka route to Mweka camp (5 hours). This is where we spend our last night on the mountain.

Day 10: MOSHI*Descent time: 4 hrs, Elevation changes: -1250 m (4,100 ft).**Estimate distance: 10km (6 miles), Final elevation: 1828 m (5,996ft)*

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|----------|----------------|----------------------|-----------------------|
| Waypoint | Millenium Camp | S3 07.918 E37 22.339 | 12599 ft GPS Altitude |
| Waypoint | Mweke Hut | S3 09.383 E37 22.027 | 10204 ft GPS Altitude |
| Waypoint | Mweke Gate | S3 13.176 E37 20.479 | 5423 ft GPS Altitude |

In the morning we walk down to the road head. This takes about 3 - 3^{1/2} hours after a lunch, it is time to say "kwaheri" to the porters. We then get a lift back to the Hotel for Bed & Breakfast

Day 11: Relax at Machame - Before Safari

Wildlife Safari

Day 12: Moshi - Lake Manyara N.P.

Moshi to Lake Manyara 230 Km 3:00 Hrs

Game drive in Lake Manyara 4 hrs

- In the morning at 0830hrs pick up from your hotel in Moshi and drive on tarmac road 230km with lunch box to Lake Manyara National Park for both morning and afternoon game drives. The park is home to Lion, Hippo, Elephant, Zebra, Buffalo, Giraffe, Baboon, Blue and Velvet monkey, Warthog and more...About 350 species of birds have been recorded. You will have Picnic lunch, dinner and overnight in Serena Hotel (B, L, D)

Day 13: Manyara - Serengeti N.P

Lake Manyara to Naabi hill gate 155 Km

Drive time include stop at Oldupai George 4 hrs, Enroute game view 4 hrs

- Early morning breakfast in Manyara then at 0600jhrs drive to the Great Serengeti National Park with lunch and game drives enroute. Afternoon game drives in the park a home to lion, leopard, Elephant, Cheetah, Buffalo, Zebra, Wildebeest, Eland, Wild dog, Gazelles, Crocs and more. Lot of birds includes the Eurasia migrants. Dinner and overnight in Serena lodge, or Sopa lodge (B, L, D)

Day 14: Full Day in Serengeti N.P

Full day game view in Serengeti plains

Estimated game drive hrs 3hrs – Morning game view 3 hrs -afternoon game view 3 hrs- Sunset game views

- Breakfast then follows morning and afternoon game drives in the park. In the afternoon continue with game viewing to the North East of the park this is LOBO area where the main path of the Serengeti Wildebeest migration has passed. *(During the migration movement between Masai Mara to Serengeti: - This happen on October to December and then on April to June each year)* Wildebeest are constantly on the move, always striving for the side with the greener grass. As the sea of grass provides little cover and young are easy pickings, wildebeest have evolved synchronized birthing: About 90 per cent of calves are born within a three week period. Predators cannot make much of a dent in the population of newborns with such a sudden glut of food. Wildebeest young can run minutes after they are born. Within three days, calves are strong enough to keep up with the herd.

Plains zebra and wildebeest often intermingle. They are complementary grazers, preferring different parts of the same grass. Zebra, with their superior vision and hearing, serve as an early warning system for the wildebeest. Given the choice, predators prefer wildebeest meat to zebra. So zebra are happy to offer the carnivores that choice. Zebra in the greatest numbers and they became one of my favorite animals. You will find the middle of an ocean of zebra stretching to the horizon a restful place to be. Dinner and overnight in Lodge (B, L, D)

Day 15: Full day in Serengeti N.P

Full day game view in Serengeti plains

Estimated game drive hrs 3hrs – Morning game view 3 hrs -afternoon game view 3 hrs- Sunset game view

- Breakfast, then half day game viewing in Lobo area where you will have your hot lunch before you drives back to Seronera the center of Serengeti. Proceed with game viewing around Seronera or Eastwards, dinner and overnight in lodge (B, L, D)

Day 16: Serengeti - Ngorongoro Crater Rim

Seronera to Ngorongoro 145 Km

Time: 2 hrs

estimated game view in Serengeti 5 hrs

- Wake up at 0600hrs for early morning game drives in Serengeti at 0845hrs back to the lodge/ Camp for breakfast. Then check out and drive with lunch and game viewing enroute to Ngorongoro Crater Rim for dinner and overnight in Serena lodge, or Sopa lodge (B, L, D)

Day 17: Crater tour - Tarangire

Ngorongoro to Tarangire 120 Km

Drive time: 2 hrs and game drive on this day: 4 – 6 Hrs

- Wake up early morning for breakfast then at 0600hrs descends into the Crater floor for game drives. All the BIG FIVE Rhino Lion, Leopard, Buffalo and Elephant live in this wonderful caldera, others are Zebra, Hippo, Wildebeest, Hyena and more...Birds includes flamingos on the Soda lake, Geese, Storks, Vultures and more...Your lunch will be served in the picnic site in the Crater at Ngoitoktok swamp a Hippo pool. After lunch proceed with game viewing while ascending the Crater and drive to Tarangire National Park for dinner and overnight in Sopa lodge, or Safari lodge. (B, L, D)

Day 18: Tarangire - Moshi

Tarangire to Moshi 200 Km

Drive time: 2:30 hrs and game drive on this day: 4 – 6 Hrs

- After breakfast continue with game viewing in Tarangire National park, a home to Lion, Leopard, Elephant, buffalo, Python, Zebra, Oryx, Impala and more... Over 450 species of birds have been observed. You will have hot lunch in your lodge/ camp before the drive takes you back to Moshi.

Land costs include:

- All night in hotel accommodations (double occupancy) B&B
- All transportation in Tanzania for those on the regular (official) schedule
- All group equipment for the climb (Tents and Cooking utensils)
- All meals (Unless indicated on Schedule)
- All park fees and climbing permits for participants and staff

Land costs do not include

- Visas for Tanzania
- Meals and hotels outside the regular itinerary
- Excess-luggage charges and airport taxes
- Personal gear
- Single-room supplement for hotels
- Medical/Evacuation trip insurance
- Charges incurred as a result of delays beyond the control of Moshi Expedition and Mountaineering
- Tips and gratuities

Each trip to Kilimanjaro is a custom one, with a minimum # of people only and no large groups filled with strangers! All prices are above, No hidden cost.

Health Information's

Trekking on Mt. Kilimanjaro has unique medical implications. Fortunately, the nature of the mountain allows a large number of non-technical, less prepared climbers to reach the summit. All routes on Mt. Kilimanjaro can be safe but preparations must be made to ensure safety. Epics are easier to prevent than extricate oneself from, and thorough planning has significantly reduced mountain sickness cases in our company.

Persons trekking on Mt. Kilimanjaro should be in excellent physical condition with a reasonable goal being the ability to run four to five miles in forty-five minutes. There is no absolute medical contra-indication for climbing to this altitude except for certain cardiac and pulmonary diseases for which effected persons should consult their physician. Good conditioning will allow the trekker to enjoy his work at altitude, without total fatigue.

Here at M.E.M

In preparation for your trip we include good food, water and protection from the elements. The trekker should consume three to four liters of fluid and eat approximately four thousand calories of food a day. Most estimates by exercise physiologists rate consumption of calories at five thousand per day for trekkers, but weight loss will be inevitable as it is almost impossible to force this many calories down. Appetite tends to fall away and the planned menu must be especially appetizing to entice one even to cook it. A diet high in carbohydrates seems to help reduce symptoms of acute mountain sickness and increase a blood oxygen level as well as being in high calories. We provide a type of food, which will give carbohydrate in lunch and breakfast, and protein food in dinner. A large variety of fruit flavorings are also conducive to increasing fluid intake and preventing dehydration.

Our Advice

any trek, except for solo ascents, requires team thinking. All must establish good communication between team members and set known goals. Every individual will have personal desires and these should be honestly expressed and "aired" prior to ascend. Much tension and hostility can be avoided in this manner.

Mountain Gear

we want to make sure you have all the gear you may need for ascending because the cold can cause problem ranging from minor discomfort to deadly hypothermia. Preparation is always the solution. A person should dress in layers so that proper ventilation can be achieved. It's easy to become overheated while climbing, which produces large amount of perspiration, causing dehydration and a wet body and clothes. Stopping physical activity in such a condition can be a "chilling" experience; also the temperature change between sunlight and shade, day and night is large, so it's best to have extra warm clothes available.

Three major routes of heating loss occur:

- a) **Evaporation**, which is mainly cause by wind blowing across the body, so use a wind - breaker.
- b) **Conduction**, this is when the heat loss by sleeping direct on the ground, to prevent this loss use the insulation pad like closed-cell foam or air mattress.
- c) **Radiation** that is best controlled with reflective material, hats should be worn. The old adage is "cold feet, put on your hat". A person can lose 30% of his or her body heat via head because the vessels of the scalp cannot constrict in response to cold, thus losing valuable warmth.

There are two serious forms of **cold pathology**

Frostbite is the destruction of soft tissue, usually in the finger and toes, secondary to the freezing of fluid into crystals in and around the cell of the tissues. Its initial presentation is whitening of the skin; it then turns red and feels hard. Frostbite is usually accompanied by numbness and tingling sensation. Blisters and the darkness of the skin are larger signs. Prevention is the key, "good wool mittens" warmer than gloves because of physical limitations of the insulation properties of an individually wrapped finger." with over mitts are important. Wool socks and good mountaineering boots provide adequate protection for the feet.

Hypothermia is the lowering of the body's core temperature, and is considered mild to 35 degree centigrade, moderate to 30 degree centigrade. A person can go from normal to severe hypothermia very quickly, particularly if immersion in cold water occurs. Although they can be tremendously uncomfortable, cold feet and toes do not indicate hypothermia, as they do not accurately reflect core temperature. Unfortunately regular fever thermometers do not work well in these temperature ranges. Predisposing factors include improper ventilation and layering of clothes; allow one to become wet from rain or perspiration, inadequate clothing, exhaustion and starvation. The first sign of hypothermia is shaking chills and mental, emotional and intellectual dulling. A person with these symptoms should be kept active and warmed with additional clothing, and near a fire or other heating source. Psychological preparation is good, but has no real temperature changing effect.

To prevent such emergencies the technique of controlled bivouacking is important to learn. If bivouac is a possibility, a bevy bag, preferably Gore-Tex and good quality sleeping bag are essential when embarking on any camping routes.

Hypoxia is low oxygen in the air, which occurs with increasing altitude. This is reflected in the body by low oxygen in the blood called hypoxemia.

Hypoxemia usually noticeable above 3,500 meters and it marked above 5,000 meters. It is heralded by shortness of breath even with mild exertion. The body responds to hypoxemia by acclimatization. There are three physiological effects of acclimatization. The most immediate change is due to chemical being released to help the blood free more oxygen for the tissues.

Current medical thought is that high altitude disease is related to decreased breathing while sleeping at altitude. Thus, the adage, "*climbing high sleep low*". It is known that at high altitude many trekkers hear their tent mates breathing periodically, with long pauses between breaths "Cheyenne-stroke breathing". This is considered normal, within limits, but thought to be related to mountain diseases. Specific high altitude diseases are divided into three categories: -

Acute mountain sickness "AMS" is the most frequent high altitude disease, and is a failure to acclimatize. Symptoms include headache (common), nausea, vomiting, anorexia, fatigue, insomnia, swelling of hands, feet or face (peripheral edema), and decreased urine output. Nearly all trekkers will have some of these symptoms. Persons with severe symptoms should stop ascending and consider descent for a few days. These symptoms they can be reduced or prevented by slow ascent and acclimatization. DIAMOX "acetazolamide", a mild diuretic, has a side effect of preventing acute mountain sickness. It is not a substitute for slow ascent or acclimatization.

No one knows why a small number of trekkers get the potentially deadly high altitude pulmonary edema or high altitude cerebral edema is unknown. The most single denominator is rapid ascent without acclimatization. HAPE and HACE have not been shown to be associated with sex, race, physical conditioning, or previous symptoms free high altitude work.

Pulmonary edema is heralded by increased shortness of breath even at rest, gurgling breath sounds "riles", which can be heard with an ear directly placed on chest" the sound like hair being rubbed together next to the ear"; and sometimes the production of a frothy white sputum. The patient usually has a cough and may produce this sputum, blood tinged." always assume with these symptoms high altitude pulmonary edema until proven and do not make mistake of treating just for pneumonia."

Cerebral edema is heralded by severe headache and incardination. Hallucinations frequently occur, but are usually denied. There are several medical diagnostic signs but only a couple which do not require equipment for testing: 1) a headache unresponsive to aspirin or acetaminophen with codeine; 2) ataxia "incardination". The test for the latter is heel to toe straight in straight line. All people will have some problems with this at high altitude due to cold and clumsy boots, so have a second person walk the line for comparison with the possible HACE patient. If a person cannot walk a competent heel to toe straight line, he or she considered to have HACE until proven otherwise.

Exhaustion: obviously, both mental and physical exhaustion are part of mountain climbing.

Forcing fluids and forcing eating can minimize physical exhaustion; neither of which is pleasant at high altitudes. Adding curry or cayenne pepper to food can usually encourage intake of fluid in most trekkers.

Mental exhaustion is tougher to prevent and treat. It is important to be in a good condition psychological shape, but setbacks and fatigue can frustrate a person into depression. Forcing oneself to carry regular routine of duties at all altitudes seems to add some sense of stability, which can help.

Feet: probably the most common and painful maladies in the mountain are sore feet and blisters. Prevention here is also the best approach. Boots should be well broken in and two or three pairs of socks should be worn. Some prefer wearing tennis or running shoes up to the actual base of technical climb, or until cold conditions are reached.

Lacerations and Abrasions: when a laceration (cut), or abrasion (scrape), occurs on the mountain, there two main treatments: a) pressure on all bleeding sites; this will stop bleeding if held long enough; and b) scrubbing the area well with plain soap and water; antibacterial soap is best, but any other soap will do. Do not place creams or ointments of kind on cuts or scrapes. They make the wound moist and slow healing. Besides they do virtual nothing to kill bacteria. Wounds heal better clean and dry no matter how big.

Sunburn: the strength of the tropical sun is easily underestimated. Its destructive U.V rays penetrate cloud and are more powerful with increased altitude; snow is also a very effective reflector. (60% to 95 %) This reflected light is the most damaging as it often sticks normally unexposed skin, such as the nose and chin. The lips, neck, and the backs of the knees are also very vulnerable sites. Protection is in the form of barriers: silk scarf for lower face and neck, hat, beard, long-sleeved shirt, long socks, etc. The ones containing Para-amino benzoic acid (PABA) or PABA esters such as Pabanol, Pre Sun, are the most successful. Choose on with a high sun protection factor 5% or no 8 at least, and apply before exposure to sunlight and at intervals depending on the degree of sweating.

Violent Injury: Some simple rules: a) Check breathing, pulse and then reassure the patient. b) Prevent further injury. c) Keep warm and dry feed and hydrate. d) Splint for fractures, both for comfort and control internal breathing. e) Trekkers rarely need or request pain medication. Once given, it decreases the injured climber's ability to cooperate or make decisions. f) Send for help if someone is available and give complete information on the situation.

Equipment Check list for trekking:

Each and every item on this list has been chosen to maximize your comfort and safety while hiking on the mountain. Please read through the entire list very carefully. If you have any questions about items on this list, or about the suitability of your own equipment, please contact us, or a reputable mountaineering equipment dealer.

FOR THE HEAD AND FACE:

- **Pile or Wool hat:** Bring one that covers ears -- a balaclava type is excellent.
- **Shade Hat:** Visor hats with good brims are essential for protection from the equatorial sun.
- **Sunglasses:** Essential for eye protection in the tropics and at altitude. Bring a good quality pair, preferably with an IREX protection rating of 100. Attachable side shields are necessary, or bring glacier glasses.
- **Sunscreen:** Bring plenty of complete sun block with a sun protection factor (SPF) of 15 or more. Unless you have spent time in equatorial sun you will probably underestimate the amount necessary, so bring lots. Sunscreen is difficult to find in Tanzania.
- **Lip Balm:** With SPF rating of 15 or higher.
- **Bandanas:** Tied around the neck, they give good sun protection. Can also be used for cleaning glasses, as wash cloths, etc. They dry very quickly.

FOR THE UPPER BODY:

- **T-Shirts:** Two T-shirts that you don't mind getting dirty while on the mountain. Synthetic is best -- no cotton on summit day.
- **Upper Body Layers:** For climbing the mountain we recommend you have three warm layers for the upper body. Items must be made of wool, synthetic or pile. Make sure all layers fit comfortably over each other and supply good insulation. A good combination is a long underwear top, a sweater, and a pile jacket or heavy wool shirt. Cotton items do not provide adequate insulation and are completely useless when damp.
- **Rain Parka:** Afternoon showers are common in East Africa, especially on the mountain. Bring a good parka of Gore-Tex or waterproof nylon that has been "seam sealed".
- **Wind Shirt:** (optional if you have Gore-Tex rain gear) A nylon wind shell (not waterproof), roomy enough to fit comfortably over all upper body layers. Gore-Tex is good for both this wind shirt and for the rain coat.
- **Poncho:** (Optional) Quick and handy protection for body and rucksack. Poor protection in windy rain.
- **Gloves or Mittens:** Wool or pile. One pair of heavy mittens and a light pair of gloves work well.
- **Mitten Shells:** One pair to go over your mittens. These are for use against the winds sometimes encountered in the crater and on the way to the summit.

FOR THE LEGS:

- **Quick Dry Hiking Shorts:** 1 pair. Good for hiking at lower elevations on the mountain.
- **Long Underwear Bottoms:** One pair. Wool or synthetic.
- **Wool, Bunting or Pile Pants:** One pair that fit loosely and is comfortable. These are essential to be worn over the long john bottoms.
- **Rain Pants:** Bring a good pair of rain pants of Gore-Tex or waterproof nylon that has been "seam sealed".
- **Wind Pants:** (optional if you have Gore-Tex rain pants.) One pair. These are used often on the mountain for protection against wind. They should be breathable nylon and roomy enough to fit comfortably over wool or pile pants.
- **Tights:** Lycra types are best. These are comfortable to hike in, help prevent nettle stings, provide good warmth on cool misty days, dry fast and prevent sunburn.
- **Undergarments:** Enough for the duration of the trek.
- **Crampons & Ice axe:** This in case you in counter ice on last ascend (Only for Western Breach ascend)

FOR THE FEET:

- **Thin Socks:** Two pair of synthetic socks to wear under heavy wool socks. These help prevent blisters and keep feet dry.
- **Thick Socks:** Six pair of heavy wool or synthetic socks to wear for warmth with hiking boots.
- **Hiking Boots:** One pair medium weight hiking boots large enough to be comfortable with one liner sock and one heavy wool or synthetic sock.
- **Gaiters:** One pair of either high or low gaiters made of breathable material to keep dirt and snow out of your boots.
- **Crampons:** As we will attempt the summit through western Breach is important to have then as backup we mint not use it but is worth having it.
- **Tennis Shoes:** These are to wear in camp after a day of hiking.

FOR SLEEPING:

- **Sleeping Bag and Stuff Sac:** On the mountain temperatures can get down to zero degrees Fahrenheit at night so bring a warm bag.
- **Sleeping pad:** A closed cell foam camping mattress is OK. An inflatable Thermal Rest type is more comfortable.

FOR DRINKING:

- **Water Bottle:** Two, one liter wide-mouthed plastic bottles.
- **Water Treatment:** This is very important. The water in East Africa is not unhealthy although its flora content is different from what you are used to. To keep your system running normally we recommend you bring two bottles of "Potable Aqua" or "Polar Pure", crystal iodine in a bottle, to treat drinking water. Filtration pumps are also effective, but costly and rather bulky.
- **Water Flavoring:** Wyle's lemonade, Tang, Gatorade, etc. These mixes are hard to come by in Tanzania and make treated water taste much better. Double bag these.

FOR CARRYING YOUR GEAR:

- **Frameless Pack:** A medium size comfortable pack is adequate to carry personal gear. The pack should fit properly and have a good waist belt. Side pockets are recommended for soft packs. Personal loads with camera gear, water for the day and warm clothes are often between 18 and 25 pounds.
- **Pack Cover:** Something waterproof to cover your pack when hiking in the rain. Otherwise bring a large plastic bag to line the inside.
- **Duffle Bag:** Medium size with lock for mountain gear. This will go into our mountain bag that the porters will carry.
- **Duffle Bag:** Large enough to hold your non-mountain gear. This will meet you at the hotel after the climb.
- **Plastic Bags:** Several, to double bag your sleeping bag and clothes on the mountain. It can rain every afternoon.

FOR PERSONAL HEALTH AND COMFORT:

- **Toiletries:** Bring enough for entire trip. Keep simple and light. Few toiletries are available in Tanzania, however, so bring enough for all your needs.
- **Ear Plugs:** To block out snoring and hut noise, to insure peaceful rest.
- **Flashlight and/or Headlamp:** Important on summit day and just plain handy in camp. Plenty of batteries.
- **Pocket Knife:** Simple Swiss Army type with scissors.
- **Personal First Aid and drug Kit:** Please see recommended list below.
- **Trail Munchies:** Although plenty of snack food is provided, trekkers like that taste of home in their pack. Touted as an important accessory by those who have brought them in the past!
- **Hot Drink Mixes:** We will provide plenty of coffee, cocoa and tea, but non-caffeinated drinks are not readily available here. Bring a supply of your favorite herbal teas.
- **Towel:** For washing up in camp, a small one is fine, or you can use a bandana.
- **Towelettes:** Such as "Wash'n'Dries" for general hygiene.
- **Spare Glasses:** For contact wearers in dusty conditions and any eyeglass wearer while on vacation.
- **Umbrella:** Very useful against rain and sun. Most guides use one.

RECOMMENDATIONS FOR YOUR PERSONAL FIRST AID AND DRUG

KIT: We will have gauze, tape, aspirin, medicated soap, antibiotic ointment, antacid tablets, some antibiotics, pain killers, eye treatments, and anaphylaxis kit, Imodium, Compazine and Diamox. Because of liability problems, prescription drugs will only be dispensed in emergencies. We suggest you bring the following medical items. Please discuss this with your physician prior to coming on this expedition.

- **Intestinal disorders:** Compazine. 25mg rectal suppositories, for severe nausea, vomiting. Imodium to decrease diarrhea and cramping. Tetracycline, Cipro or Bactrin antibiotics for initial treatment of severe diarrhea. Activated charcoal has proven to be an effective first stage treatment.
- **Cuts and scrapes:** It is wise to bring a supply of "Band-Aids" to treat those abrasions that sometimes occur.
- **Infections:** Antibiotic ointment for cuts and abrasions. Erythromycin or amoxicillin tablets for skin or soft tissue infections.
- **Blisters:** It is wise to bring your own small supply of blister treatment items to insure that you avoid letting any blister get out of hand.
- **Headaches:** Tylenol and Tylenol with codeine** to help relieve possible altitude headaches. Nothing stronger than codeine should be taken for fear of masking potential severe altitude problems while on the mountain.
- **Insomnia:** Halcion** 15mg tablets. In high altitude mountaineering restlessness is not uncommon and sleep is very important. Halcion is a light sleeping pill; we do not recommend using any sleeping pills above 15,000 feet.

High Altitude Sickness: Diamox** (acetazolamide) 250mg tablets to be taken twice a day from 13,000 feet to the top. This drug is widely used in high altitude mountaineering and is very highly recommended by our staff

INSURANCE

a) Health Insurance

it is compulsory to have full medical, **emergency evacuation** and repatriation cover for the period of time you are away.

b) Cancellation and Curtailment

you might have to cancel or curtail your safari due to unforeseen circumstances. If you cancel a trip close to departure date for any reason you could lose all that the safari was going to cost you. Should you have to leave the safari early, we cannot refund you the portion of the safari you do not complete. Dependant on the reason for cancellation and curtailment, insurance may cover you for this eventuality.

c) Baggage & Money Insurance

it is advisable to take out baggage and money insurance, especially if you are carrying a large amount of cash or expensive and valuable camera equipment. You should always carry such equipment as "carry-on" luggage. Do not put anything of value in your checked baggage!

Claims

If you anticipate an insurance claim upon your return, be sure to document as accurately as possible any accident, injury or loss. Doctor's notes and police reports will aid any claim



TANZANIA NATIONAL PARKS (TANAPA) Western Breach Requirements

OBLIGATIONS AND ACTIONS REGARDING THE RE-OPENING OF WESTERN BREACH ROUTE (ARROW GLACIER)

1. TOUR OPERATORS OBLIGATIONS / ACTION

IMMEDIATE

1. All climbing parties should wear mountain helmets right from leaving Arrow Glacier camp until they reach the crater rim to provide head protection.
2. All the climbing parties should depart Arrow Glacier camp no later than 5:00 am to be able to cross the area of most exposure within the first hour of sunrise (7:00am).
3. Guides leading groups on this route must be trained on rock fall protocol and be able to brief client and porters before they embark on the craters summit.
4. All pre-trip information to potential clients booking for Western Breach route (including website) must contain rock fall risk factor in order to seek informed consent from the clients.
5. All clients should be informed by their agents on the danger of rock fall on Western Breach route; thus, this will enable them to climb with the knowledge of the danger of the route.
6. Tour Companies should consider reducing the number of support staff to accompany clients during the hike from Arrow Glacier to crater rim to reduce the number of porters subjected to high risks and reduce the level of dislodging rocks in this area.
7. Every group must have at least two ice axes possibly carried by a guide to help cut steps on icy snow conditions to aid balance and stable foothold by climbers.
8. Every group must have life saving equipments, (gammov bag, oxygen cylinder, 1st aid kits) during crater summit attempt.
9. Each Tour Company should develop and implement a written emergency response plan. This is a document which will be elaborating procedures to be done in case of emergencies by both people in the field and those down in the offices in regard to responsibilities of patient care and transport so as to manage transition period from point of incidence on the mountain to the road head.
10. Porters should carry the luggage on their back using rucksacks so as to make their hands free. This will assist climbing and help them respond positively during rock fall incidences.
11. All Tour Operators must possess/carry mobile toilets during the climb to be used only in the crater. One toilet for crews and another for Clients. The human faeces or waste in crater must be conveniently deposited in pit toilets at Barafu hut. No one is allowed to leave (burry, hide, etc) human excreta inside the crater areas.

MID-TERM.

1. Following provision of radio channel by TANAPA, Tour Companies should procure and issue their staff with UHF radio handsets with rechargeable batteries in order for the guides to communicate with KINAPA rescue teams in case of emergence on the Western Breach route.
2. Tour Companies should develop and implement an effective Post Traumatic Stress Redress Programme for their staff as part of emergency response plan to help with healing support of those exposed to extreme trauma (this should include option to seek medical attention if necessary).