

before you start

Getting fit is a very important part of pre-expedition preparation, and its importance should not be underestimated. Even if you already lead an active lifestyle and exercise regularly, it is a good idea to adapt your training towards your chosen activity, (trekking, biking, horse riding etc). This is vital in order to build the strength, cardiovascular stamina and muscle endurance necessary to undertake the challenge ahead of you. Everyone is different and has unique training needs; therefore we cannot offer a definitive fitness programme on this website. The information contained in the following section is aimed to give you some general guidelines on the types of fitness training that you should be looking to undertake. We do recommend that you seek advice from a fitness professional; as they will be able to develop a programme to suit your individual needs based on your current level of fitness and lifestyle. A good fitness trainer will be able to develop a training programme specific to your needs, specifying the types of exercise and the duration and intensity for each exercise. They will also be able to advise you on nutrition and diet.

Prior to starting any physical training programme it is a good idea to consult your doctor particularly if you suffer from a heart condition, high blood pressure, diabetes, asthma, joint or back problems, or if you are pregnant or on any medication. Please make sure that the equipment you are using (including clothing and footwear) is appropriate for the type of exercise you are doing and is in good condition.

training principles

At the beginning of any training programme it is a good idea to establish your training objectives/goals. These should be realistic and achievable but at the same time challenging. Don't set your goals too high as if you don't reach them, you will lose morale. Also, you don't want to over do it and injure yourself. Your objectives should be reviewed every couple of weeks to ensure that you are still challenging yourself. Your training programme can then be adjusted where necessary. The earlier you start your training programme prior to your expedition the better. We recommend a lead-time of at least 16 weeks prior to your departure date. This will allow you time to build up your fitness level gradually, reducing the risk of injury.

the general training programme

When developing your training programme you should be looking to incorporate the following components:

- The Warm Up
- Stretching
- Cardiovascular Training
- Cross Training
- Resistance (weight) Training
- The Cool Down

fitness training

the warm up

With any form of physical training the body has to work hard to adapt to the higher levels of stress being placed upon it. A warm up period is therefore essential in order to raise the heart and respiratory rates gradually. Also it helps to raise the body's muscle and blood temperature reducing the potential risk of injury. Again the warm up should be related to the type of activity to be performed, i.e. walking, running, or cycling.

stretching

Developing a good stretching regime both before and after exercising will help in improving your flexibility. Stretching will also lead to a reduction in muscle tension and an increase in your joints' range of motion, again reducing the risk of injury. Daily stretching will also be important while you are on your expedition. The important muscle groups to concentrate on when stretching are: Legs: quadriceps, hamstrings, calves and ankles. Upper body: abdomen, trunk, back, shoulders, chest, neck and arms.

cardiovascular training

Cardiovascular (CV) training is primarily concentrated on developing and improving your heart and lungs (i.e. improving the body's ability to get oxygen to the working muscles). The benefits of this include increased stamina levels and muscle endurance. CV work should form the main part of your training programme. Common types of CV training include walking, running, cycling, rowing, swimming and aerobics. Many well equipped gyms will also have additional CV equipment such as Steppers and X-Country Skiers. Ask your personal trainer or someone in the gym to help you if you are not sure how to use them.

exercise intensity

How hard you train or your exercise intensities are based on a percentage of your maximum heart rate (pulse rate). The level of intensity that you start your CV training at will depend on your current level of fitness. To calculate your maximum heart rate (for fitness purposes), use the adage: $220 - (\text{your age}) = \text{maximum heart rate}$. If you have not been exercising regularly for some time, it is a good idea to start training at around 50 – 55% of your maximum heart rate (i.e. $220 - (\text{your age}) \times 0.55$) for a period of about 20 minutes three times a week. As your fitness level improves, you can gradually increase the length of the workouts staying at the same medium level of maximum heart rate. As this becomes easier, it is then advisable to increase the intensity of your workouts until you are able to work at levels between 75% and 85% of your maximum heart rate for extended periods.

cross training

Whilst it is important to build fitness specific to your activity, cross training (i.e. participating in other aerobic activities) also helps to develop cardiovascular fitness. Cross training aids develop muscle strength, hand-eye co-ordination and an improved range of motion, but probably most importantly it helps prevent boredom. If you have a specific sport or activity that you enjoy doing then this is excellent to use for cross training purposes.

fitness training

resistance (weight) training

Cardiovascular exercise should form the largest proportion of your training programme, but resistance (weight) training will help in developing strength and muscle endurance. Resistance training has the benefit of being able to target specific muscle groups. There are various methods of weight training; these depend on the performance objectives. Weight training for expedition purposes should focus on using light to moderate weights, with the emphasis being placed on repetitions. With most exercises you will be looking to do 2-3 sets of the exercise, each set consisting of 10-15 repetitions. The use of ankle and wrist weights is a good way to increase your workload whilst exercising. For a list of the main muscle groups to focus on, please refer to the stretching programme. NB: If you are unfamiliar with using weights please seek advice from a personal trainer or a gym instructor - it's what they are there for. Good technique can also lead to improvements in flexibility. Poor technique may lead to injury, so please be careful.

the cool down

Equally as important as the warm up is the cool down as it allows the body time to adapt from being physically active to resting. Five minutes of brisk walking after a run or gentle cycling is all it takes to help the body adjust. The cool down allows the body to keep circulating oxygen, this breaks down lactic acid - a fatiguing by-product that builds up in the muscles during exercise - and aids a more rapid recovery.

the hazards of over-training

Although training is incredibly important, you should try to get the right balance between your exercise programme and resting, in order to gain the most from all of your hard work. Over-training can leave the muscles depleted of energy and working below their full potential. It may also lead to injuries. It takes muscles a full 48 hours to recover fully from an exhaustive workout. You should therefore, whenever possible, try to work different muscle groups on alternate days. If this is not possible, then after a day of intensive exercise, restrict yourself to a light workout. Ensure that you take at least one day off a week to allow for full recovery.

