



"IN THE FOOTSTEPS OF HEROES"

KOKODA

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KOKODA SPIRIT PRE TREK TRAINING PROGRAM

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Why Train?

Kokoda Spirit has an excellent reputation when it comes to developing the fitness and preparation of our clients. We are proud of the success rate of our trekkers! You do not have to be super fit or an Olympic athlete to complete Kokoda, Everest Base Camp, or indeed any of our tours but you do need to have excellent endurance and stamina along with a strong cardiovascular system and a desire to complete one of the world's great journeys. The advantage of having the suitable fitness levels lies in your ability to complete the trek, safely, enjoyably and interact with locals, go for a swim or take a side trip to a waterfall AFTER the days trekking is completed. Training also provides enormous health benefits and improves your general well being.

By necessity, we assume that our clients have little knowledge of how to improve their fitness. If you are already participating in a training regime then the initial phase may not be appropriate and you can move directly into higher levels. For best training results, you should follow the "principles of training" listed below. Stretching before and after training is beneficial in the reduction of injuries; follow our "stretching guide"

Principles of training

- **Specificity** - the type of training you undergo should reflect the activity that you will participate in. In this case a trek involving several hours daily walking up steep ascents and walking down equally steep descents
- **Intensity** - The intensity that you expect during the *Trek* should be reflected in the training program. That is, several hours of walking each day for several days on end.
- **Overload** - to gain a training "effect" you must overload the various "systems" within your body. That is, your cardiovascular, muscular-skeletal systems etc. Overload is achieved by increasing distances, decreasing time taken or increasing pack weight.
- **Heart rate** is a good indicator of intensity. You should not exceed your maximum heart rate. To obtain your max H/R; Subtract your age from 220; For example . If you are 40 yrs old, then your max H/R is $220 - 40 = 180$;



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- **Recovery** – It is important to allow your body to recover from the stress that hard physical training places on it. Vary the intensity of your training by alternating hard sessions with slightly easier ones. This will help prevent over-use injuries
- This program assumes no equipment or Gym membership. If you are a regular gym member, each alternate day could be spent strength / endurance training in the gym

Prior to embarking on any fitness regime, Kokoda Spirit strongly recommends you have a medical check up with your preferred GP and inform him of your intentions to embark on a trek that WILL involve strenuous exercise for several hours a day for several days in a remote area where evacuation is difficult.

Pre-test and Post-test

For a training program to be successful, you need to know where your starting point is. A training program for a trained athlete will be different than that of someone who has never undergone any training. The principles however remain the same. To analyse if your training is successful, a pre and post test is required. (Using the same equipment and tester during each test is important to reduce error)

Where to Pre-test and Post-test?

Local gyms have the equipment and expertise to determine your level of fitness. A small cost is normally involved. It will require perhaps a stationary bike test or similar. If this is not practical, your pre-test may be as simple as completing the “Harvard step test” outlined below.

Step test

This test can be used to give you an indication of your current fitness level. Throughout your training program you can re-do the test to evaluate the effectiveness of your training.

Equipment required



- 1 x bench or stable box 45cm high
- 1 x stopwatch

You need to be able to take your own Heart beat; this is recorded as beats per minute (bpm)



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How Do I take my Heart rate?

Your heart rate can be taken at any spot on the body at which an artery is close to the surface and a pulse can be felt. The most common places to measure heart rate using the palpation method is at the wrist (radial artery) and the neck (carotid artery). Other places sometimes used are the elbow (brachial artery) and the groin (femoral artery).

To take your resting heart rate at the wrist, place your index and middle fingers together on the opposite wrist, about 1/2 inch on the inside of the joint, in line with the index finger. Feel for a pulse. When you find a pulse, count the number of beats you feel within a one minute period. You can estimate the per minute rate by counting over 10 seconds and multiplying this figure by 6, or over 15 seconds and multiplying by 4, or over 30 seconds and doubling the result. There are obvious potential errors by using this shorthand method. You should always use your fingers to take a pulse, not your thumb, particularly when recording someone else's pulse, as you can sometimes feel your own pulse through your thumb.

Conducting the test

Ask someone to time you and count for you so you can concentrate on the task at hand (or foot!). At the signal to begin, step up with your right foot, then bring your left foot up beside it. Follow the "up, up" with "down, down" to complete one step. Repeat at a rate of 24 steps per minute for three consecutive minutes. Then rest in a chair for exactly one minute before taking your pulse. Finally, use the YMCA standards (see table below) to see how you stack up. The step test can be quite demanding; if you have been diagnosed with heart disease, if you suspect you may have heart disease, or if you have major risk factors, ask your doctor about a formal stress test instead of taking the step test.

| Step Test Pulse Count (Using a 60 second pulse count) | | | | |
|--|------------|--------------------------|---------------------------------|---------------------|
| | Age | Good to Excellent | Average to Above Average | Poor to Fair |
| Men | 18–25 | 84 or lower | 85–100 | 101 or higher |
| | 26–35 | 86 or lower | 87–103 | 104 or higher |
| | 36–45 | 90 or lower | 91–106 | 107 or higher |



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| | | | | |
|--------------|----------|--------------|---------|---------------|
| | 46–55 | 93 or lower | 94–112 | 113 or higher |
| | 56–65 | 96 or lower | 97–115 | 116 or higher |
| | Above 65 | 102 or lower | 103–118 | 119 or higher |
| Women | 18–25 | 93 or lower | 94–110 | 111 or higher |
| | 26–35 | 94 or lower | 95–111 | 112 or higher |
| | 36–45 | 96 or lower | 97–119 | 120 or higher |
| | 46–45 | 101 or lower | 102–124 | 125 or higher |
| | 56–65 | 103 or lower | 104–126 | 127 or higher |
| | Above 65 | 105 or lower | 106–130 | 131 or higher |

Where do I Start?

Your starting point is determined by your pre-test fitness levels. Those who have been involved in a regular training regime will have some advantages in terms of routine and perhaps a higher base level fitness to begin with. Not necessarily in all cases however. Gym junkies, swimmers and those participating in specific activities that require particular muscle groups, will often have difficulty when it comes to walking steep hills with a backpack. Remember the specificity rule!

Therefore to identify a starting point that suits all people is impossible!

Kokoda Spirit will therefore present a training program that has proven to be successful with hundreds of clients. All you need to determine is “where” your entry point is. This training regime is the **minimum required** and you can add to each week with a bike ride, swim, gym or run.

Remember that the body does need to recover so don't overdo it. Continual muscle soreness or general fatigue may indicate a day off is required.

The Kokoda Trail exemplifies the need to adhere to the specificity rule; you need to train on hills, hills and more hills AND you need to train for descents as well as ascents.

Red highlighting indicates a change in duration, overload or intensity from previous exercise sessions

Note; train in clothes you expect to wear whilst on the Trek to ensure chaffing does not occur and that they are comfortable.



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Stage 1

Preparation Phase: 4 weeks

The aim of this phase is to develop a basic level of fitness that will allow you to move into more strenuous and physically demanding activities. It starts off intentionally quite easy and is suited to people of low fitness levels or those with an injury.

Initially you must walk at a slow pace until your body gets used to exercise.

Week 1

Day 1 slow easy walk along flat ground for 30 – 45 mins; 3-5 km

Day 3 as above; 3-5 km

Day 5 slow easy walk along flat ground for **45mins – 1 Hr;**

Week 2 (with trekking boots)

Day 1 **slightly faster** walk along flat ground for 45 mins – 1 Hr; 4-6 km

Day 2 same as above; 4-6 km (carry small daypack, 5 kg)

Day 3 slightly faster walk along flat ground for **1 Hr -1 ½ Hrs;** (daypack & 5kg)

Week 3

Day 1 **increase the intensity** of the 1 – ½ Hr walk by walking up hills *or* stairs (5 kg + 2 ltrs water)

Day 2 same as above

Day 3 **slightly faster** walk up the hills or stairs (5kg + water)

Week 4

Day 1 wears a **small daypack with 8 kg** during your 2 hr hill or stair walk

Day 2 same as above

Day 3 **increase the intensity** by completing your above walk in less time

Re-test- Step test;

Stage 2

Build up Phase: 4 weeks

Week 5

Day 1 hill, stair walk for 2 hrs

Day 2 **increase** packs weight to 10 kgs (or 2-3 kgs more than what has been carried), repeat above

Day 3 2 hr walk with pack; 8kms

Day 5 easy long slow walk 3 hrs 10kms +



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Week 6

Day 1 hill, stair walk, 2 hrs, with pack,
Day 2 power walk on flat, 5 kms, 10kg pack
Day 3 hills, faster pace, 2 hrs
Day 5 easy long slow walk with **slightly heavier** pack; 10-12 km

Week 7

Day 1 oval, "lunges" ¼ oval, then walk to complete lap; repeat 4 laps
Day 2 Hill walk, 2 hrs with pack
Day 3 hills, **faster** pace with 10kg
Day 5 power walk, 7 kms with pack

Week 8

Day 1 oval "lunges" ¼ ovals, then fast walk; repeat 5 laps
Day 2 Hill walk, **increase pack weight by 2 kg, 2 hrs**
Day 3 as above
Day 5 long walk with pack; 9 kms

Re-Test; Step test

Stage 3

Consolidation Phase; 4 weeks

Week 8

Day 1 Hills; Up and down, 2 ½ hrs with pack
Day 2 Oval "lunges"; ½ ovals then fast walk to complete lap, repeat 5 times
Day 3 Hill walks with pack, **increase length by 15%**
Day 5 Long walk; medium difficulty; 5 hrs with 2 kg increase in pack weight

Week 9

Day 1 Hill walks with pack, **decrease time taken for route**
Day 2 hill walk, **increase** pack weight 2-3 kgs; as above
Day 3 Hill walk, **increase** length of walk
Day 5 Long walk with pack, 6 hrs -8 hrs

Week 10

Day 1 oval lunges, ½ lap, and then fast walk to complete lap; repeat 6 times
Day 2 Hill walk, **decrease** time taken for route
Day 3 Hill walk, **increase** pack weight 2-3 kgs
Day 5 Long walk, with pack 8 hrs



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Week 11

Day 1 as for week 10 except 7 circuits

Day 2 as for week 10

Day 3 as for week 10

Day 5 Long walk, with pack, **increase** weight by 2-3kgs

Week 12

Day 1 moderate walk 5 -7 kms with pack

Day 2 moderate walk 5-7 kms with pack

Day 3 moderate walk 5-7 kms with pack

One or two days rest prior to leaving Australia for Papua New Guinea

Stretching

Kokoda Spirit Stretching Tips

1. Always warm up for 5-15 minutes prior to stretching.
2. Move slowly when stretching. Take this time to relax and focus on your breathing.
3. Depending on what you choose, music can help energize or relax you.
4. When lying on your back, move your legs one at a time. Sudden movements with both legs can strain the muscles of the lower back.
5. Stretch to the point of gentle tension. If something hurts, stop immediately. Stretching should feel good.
6. Try to stretch after you have completed training. This workout can take as little as 7-10 minutes, or as long as you'd like. A few minutes every week can improve your performance, and prevent injuries, and help you relax.

Stretching Program

This is a good supplementary stretching program to your existing workout and for your off days.

Neck Rotation

Turn your head to the side, stretching your chin toward your shoulder. Turn head back to center and repeat to the other side.

Shoulder Stretch

Stand with feet shoulder width apart. Raise one arm overhead and stretch as far as you can without bending the torso. Repeat with opposite arm.

Forearm Stretch

Extend your right arm straight out in front of you, palm downward. With the left



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hand, grasp the fingers of the right hand and pull back gently, stretching the wrist and forearm. Repeat with the left arm.

Triceps Stretch

Raise one arm straight up, so your upper arm is near your ear. Bend at the elbow and let your hand fall to the back of your neck. With the other arm, reach behind your head and place your hand on top of the bent elbow. Gently pull down and back on the elbow. Repeat with other arm.

Trunk Stretch

Stand with your feet a little more than shoulder width apart. Reach your left arm overhead and bend to the right at the waist. Repeat on opposite side.

Torso Twist

Stand at arm's length from the wall, with the wall at your side. Reach one arm out and place your hand on the wall. Reach the other arm around the body, stretching the hand to the wall. Repeat on opposite side.

Chest Stretch

Stand with your feet shoulder width apart. Clasp your hands behind your back and gently press your arms upward, keeping your arms straight.

Back Stretch

Lie on your back and bring one knee to your chest. Hold the knee with both hands and gently pull in. Alternate knees and repeat.

Hip Roll

Lie on your back and bend your knees, feet flat on the floor. Let your knees fall to the right while reaching both arms across your body to the left. Hold the stretch, then roll the hips over to the left, stretch arms to the right and repeat the stretch.

Lower Back Reach

Sit on the floor with your legs straight out in front of you. Reach forward toward your toes, keeping your chin up and lower back slightly arched. Try not to round the back or tuck the chin in - this decreases the effectiveness of the stretch.

Butterfly Stretch

Sit on the floor, bend your knees out to the sides and bring the soles of your feet together. Place your hands on your knees and gently press the knees toward the floor. Keep your back straight.

Lateral Hip Stretch

Sit on the floor with both legs straight in front of you. Bend your left leg and place the left foot over the right knee. Place your right hand on the outside of the left knee and gently pull the knee toward your right shoulder, twisting the torso to the left, until you feel the stretch in your left hip. Repeat with opposite side.

Hamstring Stretch

Stand with legs shoulder width apart and the left leg slightly in front of the right. Shift your weight to the back leg (the right) and bend the knee, turning the knee and toe to the right. Extend the left leg and place the heel on the floor, toes in the



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air. Keep the back straight and bend forward at the hips until you feel the stretch in the hamstring of the left leg. Repeat with the opposite leg.

Standing Hamstring Reach

Stand with one foot crossed over the other. Bend at the hips, reaching toward the floor and keeping the knees slightly bent. Repeat with the opposite foot crossed in front.

V-Stretch

Sit on the floor with your legs extended to either side so they form a "V". Bend forward, grasp your toes or ankles, and stretch your chest toward the floor. Try to go a little lower each time you perform the stretch.

Leaning Calf Stretch

Stand about 2 1/2 feet from a wall. Place your hands on the wall and lean in, gently pushing your hips forward. Keep your legs straight and heels flat on the floor.

Standing Calf Stretch

Stand with your feet together. Extend one leg in front of you and place the heel on the floor, toes in the air. Keeping the back straight, bend forward at the hips until you feel the stretch in the calf. Repeat with opposite leg.

Quadriceps Stretch

Lie face down and reach back with your right arm to grasp your right ankle. Pull your foot toward your buttocks. Be sure to keep your hips and pelvis on the floor. Repeat with left leg.

Standing Quad Stretch

From a standing position, reach back to grasp your right ankle with your right hand. Pull your foot toward your buttocks. Place your other hand on a wall or chair if you need balance support. Repeat with left leg.