The problem
Prolonged air travel, such as long international flights between Australia and Europe or North America, can be a risk for the development of clots of blood in the deep veins of the leg. This condition is known as deep venous thrombosis. Being immobile for long periods of time slows down the circulation in the legs, as the muscles which help pump the blood are inactive. This makes a clot more likely to form.

What is the risk?
A clot of blood that forms in the veins can move through the circulation into the major arteries of the lungs. This is known as a pulmonary embolus which cuts off oxygen supply to the lungs. Sometimes it can cause sudden death.

Who is at risk?
DVT can occur in any person but some are at greater risk than others, especially if there is a family history or the person has had DVT before.
The risk factors include:
• Blood disorders with a clotting tendency
• Obesity
• Smoking

The main ways to prevent DVT are to exercise the body, especially the muscles of the legs, and prevent dehydration.

1. Keeping hydrated. Drink plenty of water before, during and after your travel period. Reduce the amount of alcohol and caffeine or preferably avoid these fluids which cause increased fluid loss through the kidneys (as urine).
2. In-flight leg exercises. These exercises are recommended for about 3-4 minutes every hour. Stop any exercise that causes pain or discomfort.

• Foot pumps. This important exercise is done in three stages:
  1. Start with the feet flat and both heels on the floor, lift the feet (toes up) as high as you can
  2. Return the feet to the flat position, pressing them firmly into the floor
  3. Lift the heels high, keeping the balls of the feet on the floor.
Continue this up-and-down movement for at least 30 seconds.

• Ankle circles. Lift the feet off the floor and draw a circle with your toes. Move one foot clockwise while moving the other in the opposite direction and then reverse the foot movement — that is, move the feet towards and away from each other.
Perform this alternating movement for about 15 seconds.

• Knee lifts. Lift your leg with your knee bent and tighten the muscles of your thigh and calf. Then repeat with the other leg.
Perform this several times.

It is recommended that you occasionally walk around the aircraft cabin as space and time permit.