As a mutual, Unimutual is concerned about the welfare of Members, their staff, students and community. With the assistance of the Membership, we develop information sheets and checklists designed to assist the sector in better managing their risks, whether or not they are protected by the Mutual. All Members have staff, students and stakeholders who are frequent airline flyers and exposed to the hazards of airline travel. The following information sheet and checklist is designed to inform Members of the most common hazards facing frequent airline travellers and to provide recommendations on risk mitigation actions. The information provided is not medical advice nor the result of peer-reviewed research. It was collated from public sources and may contain information not scientifically proven. However, it represents the views and experience of many frequent flyers. It may not be suitable for all flight applications and individuals as it is a summary of common information about flight risks and hazards. It is recommended that each person utilising this checklist employ modifications to ensure it is appropriate for their individual circumstances.

**Risk 1: Air Quality**

It is widely recognised that air quality is an important factor in airline travel health, as travellers are exposed to re-circulated air as part of the flying experience. The recycled air provided to passengers is delivered at lower pressures than found at ground level, and may contain decreased levels of oxygen and humidity than the traveler may be used to. There is widespread concern that, in spite of the extensive on-board filtration process employed by the airlines, recycled air may hold contaminants such as increased carbon-dioxide and biological pathogens which could lead to increased exposure to colds, flus and other airborne communicable diseases. While this last point is still controversial, it is not uncommon for passengers to report air quality-related maladies including headaches, dry skin, excessive thirst, colds, flus, eye infections and shortness of breath which they ascribe to the changed air quality found in commercial aircraft. Suggested risk prevention activities include the following:

- Minimise dehydration risks by avoiding beverages which result in water loss such an alcohol, caffeine, etc.
- Drink bottled water; suggested intake is up to one bottle per hour on the plane.
- Use moisturisers to keep skin moist and saline sprays to keep nostrils moist, to improve filtration of contaminants.
- Ask cabin staff for oxygen if feeling faint or light-headed during the flight.
- Move around the cabin during the flight to improve blood circulation.
- If you suffer from asthma, respiratory and cardiovascular disease, consult your physician for up to date advice.

**Risk 2: Cabin Pressure Changes**

Aircraft cabin pressure changes during the flight, decreasing as the aircraft increases in altitude. As a result the body feels these changes as pressure in internal cavities or areas where air can be trapped such as medical casts or dental cavities. Frequently reported problems associated with normal changing cabin pressures resulting in significant discomfort to passengers include earaches, intestinal gas, bloating, tooth aches, and even hemorrhaging. Suggested risk prevention activities include the following:

- Avoid eating any food which might upset your gut, such as gas-producing foods prior to long flights. Avoid wearing tight clothing to reduce discomfort from bloating.
- Ensure dental health issues are properly addressed prior to flights including repair of any loose fillings or oral infections.
- Consult your physician prior to flying if you have recently had surgery or been diagnosed with a bleeding ulcer or ovarian cyst.
- Avoid flying if you have a serious cold or sinus infection.
- Avoid scuba diving the day before flying.

**Risk 3: Radiation**

High altitude flights reduce the natural protection afforded by the Earth’s atmosphere experienced at ground level, exposing passengers to increased levels of cosmic radiation. While some feel that the typical increased exposure during a long-haul flight is similar to that of a medical x-ray, there is uncertainty about the risk of increased exposure to cosmic radiation on passengers, especially those in the early stages of pregnancy. Suggested risk prevention activities include the following:
- Be aware of the risk of increased exposure to cosmic rays. Make flight decisions in light of your risk tolerance for your exposure to radiation over the year. Consider your exposure levels to radiation including all medical imaging conducted over the past year.

- Avoid/minimise flights during the first trimester of pregnancy.

- If you are pregnant, consider travelling business or first class for greater comfort and mobility. This will not impact the radiation risk, but will contribute to overall comfort.

- If you travel extensively, consider using a radiation badge to record levels of exposure to cosmic rays or other sources of radiation.

### Risk 4: Stress

Airline flights can be extremely stressful, even for the most experienced traveller. While many travellers still harbour psychological concerns about the safety of air travel, many find dealing with flight schedules, finding parking, airport security, cancellations or delays, lost luggage, cramped seating, crying children and loud or obnoxious fellow travelers, a stressful challenge. Regardless of the factors which cause the stress, it is important to recognise that, for many, flight does increase stress levels and physiological reactions, such as hormonal secretions associated with stress. This can result in increased levels of anxiety associated with air flight. Suggested risk prevention activities include the following:

- Recognising factors causing your stress and the physiological signs of its onset. Be prepared for and anticipate the symptoms of your stress responses.

- Recognise the drivers of your stress response, including sleep deprivation, oxygen deficiency and similar causes. Ensure you are well rested prior to the flight. Consider using ear plugs for sleep.

- Address any fear of flying anxieties or concerns with a medical professional prior to the flight. Such anxieties can be successfully addressed and treated.

- Take actions which are successful in reducing the levels of stress hormones to your body, such as reading, comfortable clothing, in-flight entertainment, meditation, etc.

- Anticipate stressful events occurring prior to the flight such as anticipated delays and the possibility of lost luggage. Plan to accommodate such mishaps to ensure they do not impact the remainder of your schedule such as including extra time to make it to meetings on time or contingency planning.

### Risk 5: Air Rage

Air rage is a recently-coined term which relates to acts of violence and aggression associated with members of the flying public. It can be triggered by situations of stress, uncontrolled drinking, excessive use of drugs, or lack of sleep. While we may be able to recognise signs of stress in ourselves and take corrective actions, as discussed in Risk 4 above, other members of the traveling public may not be as self-aware, and as a result can become violent and aggressive to you, other passengers and airline staff. Suggested risk prevention activities include the following:

- Engage with other passengers in the waiting lounges. Talking to fellow passengers can reduce the level of stress of both parties.

- Fly with the “right attitude”. Negative attitudes can quickly circulate around the plane, increasing the ambient stress levels and the likelihood of an air rage incident.

- Consider changing seats if you are located near a person who shows signs of excessive agitation, is drunk or aggressive.

- Plan in your head what actions you would take in stressful circumstances such as when confronted by an intoxicated or aggressive passenger.

### Risk 6: Deep Vein Thrombosis (DVT)

The increased risk of blood clots associated with any form of travel where passengers are relatively immobilised, including air travel, is well publicised in the media, and should be familiar to all who fly frequently. Such clotting can occur in the young and healthy, as well as those who have a history of circulatory problems, so all passengers are at an elevated level of risk with this hazard. Long-haul flights present a significant risk of blood clots, and should be considered before such travel is scheduled. Suggested risk prevention activities include the following:

- Follow exercises found in aeroplane literature, to increase blood flow. Ensure you actively flex leg muscles every 30 minutes while seated.

- Consider wearing compression stockings while undertaking any extended flight.

- Walk around the aircraft at least once an hour to increase circulation.

- Consider travelling in business or first class, as seating is less confined and permits greater movement of legs while seated.

- Discuss this risk with your physician to receive up-to-date information on DVT.
### Risk 7: Jet Lag

Jet lag is well known to experienced travellers but can result in serious accidents or injuries. Jet lag is a term applied to a temporary disruption to your body clock when you travel across several time zones, resulting in a feeling of being “out of sync” with your current surroundings. Long-distance travel can disrupt your natural body rhythms of when you eat, sleep and require your body to make adjustments to the new environment. The period for your body to make such adjustments varies from person to person. Symptoms can vary but commonly reported effects of jet lag include fatigue, exhaustion, inability to sleep, disorientation, lost desire to eat, headaches, stomach aches and a general feeling of fuzziness. Suggested risk prevention activities include the following:

- Be self-aware. Recognise prior to travel the likelihood of experiencing jet lag and schedule your activities accordingly. For example, consider delaying important meetings until your body has been able to adjust to the new schedule.
- Consider using public transportation until your body has adjusted to the new environment; refrain from driving until you feel you are fully alert.
- Discuss with your physician coping strategies which require medical monitoring, including when to take medications and other important scheduled actions.
- Ensure proper hydration levels are maintained by drinking water and refraining from alcoholic or caffeinated beverages.
- Consider breaking the trip into smaller journeys.
- Consider adjusting your flight sleeping schedule to match those sleeping times of your destination during the flight.
- Adjust to the local time for eating and sleeping as quickly as possible, avoiding afternoon naps. Consider increased exposure to the sun, as it is believed to aid in the reduction of jet lag.

### Risk 8: Communicable Diseases

There is considerable difference of opinion as to whether aircraft cabin air quality or close proximity other passengers' causes in increase in the frequency, of colds and flus following air travel. While air quality issues have been addressed in Risk 1, above, the frequent traveller should be reminded that, for the duration of the journey, they will be sharing a confined space with many other people, some of whom may have a communicable disease. Travelers should recognise that in such an environment the transmission of disease is far more likely, especially in an environment of frequent hand contact. Dry air can reduce the effectiveness of our body's defences. Suggested risk prevention activities include the following:

- Follow normal protocols associated with influenza prevention such as frequent hand washing.
- Frequent flyers may consider getting an annual flu vaccination.
- Carry alcohol-based hand rubs and use them during the flight, especially before meals.
- Avoid contact with fellow passengers showing symptoms of cold or flu.
- Examine travel advisories to determine the likelihood that your fellow travellers my come from destinations with a current communicable disease outbreak.
- Avoid touching your nose, eyes and mouth during the trip.