

Leaving on a jet plane

- Tips for contact lens wearers who travel on a plane

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Air travel in commercial aircraft is fast, convenient, and safe. With an increasing number of air passengers each year, more focus has been placed on passengers' health such as deep vein thrombosis (i.e., economy class syndrome), air quality, infection, cosmic radiation and jet lag. However, the effect of the aircraft environment on eye conditions should not be overlooked.

The main environmental factor in pressurised cabins that can affect eyes is low humidity. The optimum humidity range for comfort is between 40% and 60%. However, cabin humidity may drop to 11% after takeoff. The low cabin humidity during air travel can cause ocular discomfort such as dryness.

For contact lens wearers, the condition is worse. The presence of a contact lens in the eye can produce a condition called contact lens-induced dry eye (CLDE), in an otherwise normal individual. Contact lenses may disrupt normal tear physiology through thinning and break up of the tear film, interrupt tear film reformation and rupture the lipid layer with consequent increases in tear film evaporation. The symptoms include grittiness, scratchy eyes, lens intolerance, and blurred vision.

Therefore, contact lens wearers who travel on a plane may experience even more dryness. It is important to know what causes dry eye and corresponding preventive measures.

Here are some tips:

1. Beverages containing alcohol or caffeine and certain medications can exacerbate dryness. If lenses are worn during air travel, avoid alcohol and coffee consumption.
2. Lens deposits reduce lens wetting and increase tear evaporation. Clean your lenses thoroughly before the journey. If you are a disposable lens wearer, insert new fresh lenses. If you are a yearly replacement lens wearer, use a protein remover in addition to your normal lens cleaning regime before the journey.
3. If you are a frequent flyer, avoid using high water contact lenses because this type of lens dries and distorts easier. Materials such as silicone hydrogel or rigid gas permeable lens may help.
4. Use a contact lens care system such as COMPLETE MoisturePLUS which contains the moisturising agents HPMC and Propylene Glycol. These moisturising agents create a shield of moisture between the lens and the eye, to ensure prolonged lubrication. Taurine may also help to relieve ocular discomfort such as itching and excessive tearing. For sensitive eyes, a hydrogen peroxide system may help in reducing irritation.

5. Use lubricating drops during the flight. A lubricating eye drop containing sodium hyaluronate, such as Blink Contacts has been proven to effectively reduce dry eye symptoms. Use a preservative-free formula for sensitive or allergy-prone eyes.
6. Carry a pair of spectacles with you. If dryness persists, remove the lenses and wear the spectacles.
7. Under new flight security regulations, there are limitations on carrying liquid over 100 mL per container in hand baggage. In this case, you can carry a contact lens case containing fresh multi-purpose contact lens solution. If you experience any discomfort, simply remove your lenses and place them in the lens case.