



Health and Wellbeing in the Air

A Charles Perkins Centre and Qantas partnership



Project Sunrise 2019 Test Flights: Research Summary

The Project Sunrise research is a partnership between Qantas and the Charles Perkins Centre harnessing integrated health and wellbeing research to minimise the impact of long-haul flights.

Aim:

The aim of the research was to assess the feasibility of implementing an in-flight intervention to minimise passengers' jet lag and assess the likely impact of that intervention.

Intervention:

- An optimised schedule of cabin lighting and meal service that was tailored to the biological adjustment necessary when travelling between origin and destination time zones.
- A recommended schedule of out-of-seat and in-seat exercises and recommended sleep times that were aligned with the cabin lighting and meal service schedule.

Participants:

Twenty three passengers across two test flights from New York to Sydney and one test flight from London to Sydney in 2019.

The in-flight intervention was successfully implemented

Benefits of intervention during flight*:

- Increased physical activity during light periods, low activity during dark periods
- Estimated sleep time during dark increased and sleep quality improved
- Improved cognitive performance, as measured by psychomotor vigilance task

Benefits of intervention post-flight*:

- Subjective jet lag was experienced for one to two days less than expected and severity of jet lag was reduced
- Objective sleep during normal sleep times and quality of sleep were more consistent
- Subjective sleepiness returned to pre-flight levels more quickly
- Better cognitive performance in two days post flight



“The early results are promising and the Charles Perkins Centre is looking forward to continuing our trailblazing partnership with Qantas to improve the health and wellbeing of passengers.”

Professor Stephen Simpson
Academic Director, Charles Perkins Centre

Future directions:

- Further study with larger numbers of passengers, better controlled conditions and additional objective measures will assist in determining the impact of the cabin intervention, and the degree to which passenger behaviour can be influenced to produce a better travel experience.
- Factors to consider in future include;
 - departure and arrival time of flight
 - effective time difference between origin and destination, daylight savings time, and seasonal differences
 - length of time spent at origin
 - individual differences in circadian rhythm and behaviour (sleep, meals, exercise)
 - flight cabin (business vs economy)
 - impact of advice tailored to passengers



Images are provided by QANTAS

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