



## Travelling safely by air The Hypoxic Challenge Test (HCT)

### Information for parents

#### **How does air travel affect my baby's oxygen levels?**

The oxygen content in the air at altitude is lower than at sea level. Some babies, e.g. those born prematurely, may require having oxygen available for the flight.

If you are thinking of taking your infant on a flight, they may need a Hypoxic Challenge Test (HCT). We advise you to read this leaflet before booking flights / organising travel insurance.

#### **What does a Hypoxic Challenge Test involve?**

The test involves controlled monitoring of your baby's oxygen saturation levels, as oxygen content in the air is reduced from 21% to 15%. The HCT is performed in the paediatric respiratory physiology department at the Royal Hospital for Sick Children, Edinburgh.

#### **Which babies need extra consideration?**

The following babies need extra consideration about oxygen during air travel:

1. Premature infants (born at less than 37 weeks) who have not reached the expected date of delivery do not require a HCT, but in-flight oxygen should be available (1-2L/min). Oxygen would be required if the baby develops signs of a respiratory illness while in flight (contact your preferred airline to confirm they can provide oxygen if it is needed)

2. Oxygen-dependant infants/children need their oxygen flow rate doubled for the flight. There is no need for a HCT
3. Infants/children who have had long-term oxygen within the last six months need an HCT to see if in-flight oxygen is required
4. Infants under 1 year with a history of neonatal chronic respiratory problems require an HCT to determine the need for in-flight oxygen.

### **What do I do if I think my infant may require this test?**

Contact the Neonatal Community Team on 0131 242 2587 and a member of the team will discuss options with you. They will then discuss and confirm a HCT is advised with medical staff before making the referral.

You can also raise queries/concerns with medical staff when you attend the neonatal outpatient appointment with your baby. If your child is under the care of the respiratory team at the RHSC, they can arrange referral for HCT.

### **Considerations:**

The waiting time for the test is 3-4 weeks, so it is recommended that referral should be made 6-8 weeks before the anticipated date of your flight. We recommend that you do not book flights until the test results are available, as O<sub>2</sub> (oxygen gas) for the flight will have to be ordered.

Test results and a written report are available within a week, with a copy sent to parents. **Note:** There is a cost implication for the provision of in-flight oxygen.

### **Further information**

If you have any further questions, please contact the Neonatal Community Team on 0131 242 2587.