SUNWAY Children's HEALTH CENTRE

SUNWAY MEDICAL CENTRE
Sunway City Kuala Lumpur

LITTLE TRAVELLERS, EXTRA CARE

Paediatrics Hypoxic Challenge Test (HCT)



Understanding your child's oxygen needs before flying

What is Paediatric HCT?

Paediatric hypoxic challenge test (HCT) assesses whether children with lung conditions or breathing difficulties may need extra oxygen during a flight.[1-4]

Indications

Your paediatrician may recommend assessment for children with:



Bronchopulmonary dysplasia (BPD)



Cystic fibrosis (CF)



Primary ciliary dyskinesia or bronchiectasis



Conditions affecting the breathing muscles or chest wall



Severe asthma that is difficult to control



A current or recent need for long-term oxygen or breathing support[1]

Not every child with these conditions needs HCT. Your doctor will assess your child's health and travel plans before recommending the test.[1]





What happens during the test?

1. Your child will sit in a chamber that simulates the cabin oxygen conditions of an aircraft. Younger children may sit with a parent and bring their favourite toy.
2. Oxygen levels and heart rate are monitored throughout the test.
3. Children using breathing equipment may need an adapted test.[2-4]

What do the results mean?

Test result	What this means
Your child maintains the required oxygen level **without extra oxygen supplementation.**	In-flight oxygen may not be needed.
Your child **needs extra oxygen to maintain the required level.**	Your doctor will recommend the oxygen support needed during the flight.

Planning a flight? Contact our paediatric respiratory service early for an assessment and advice on in-flight oxygen.

For more information, please contact:

Children's Services (WhatsApp)

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Children's Emergency Department

+603-7491 2801

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References
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2. KKH (2026). Making it safe to fly.
3. SCHN (2026). HCT information sheet.
4. GOSH (2026). Hypoxic challenge test.

Joint Commission International (USA)
Australian Council on Healthcare Standards International
Malaysian Society for Quality in Health
European Society for Medical Oncology
SAMM 306

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