

# A pilot study measuring Oxygen and Carbon Dioxide in order to assess the impact of Opiate Infusions on young children Undergoing Palatoplasties

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<b>Status</b>	RECRUITING
<b>Sponsor</b>	Perth Children's Hospital
<b>Enrollment</b>	60 participants

## Plain Language Summary

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Cleft palate is a birth defect where the roof of the mouth does not close properly during foetal development, creating an opening between the mouth and nasal cavity. Surgical repair is performed in the first year of life, and after the operation, babies need pain relief — typically opioid medications (strong painkillers like morphine) given through a drip. However, opioids can suppress breathing, and this risk is particularly significant in young infants, especially those who were born prematurely.

This pilot study is monitoring oxygen and carbon dioxide levels in infants before and after cleft palate surgery using two types of non-invasive sensors — a standard pulse oximeter and a transcutaneous carbon dioxide monitor placed gently on the skin. The goal is to understand how babies' breathing is affected during the recovery period and to identify which infants may need closer monitoring, laying the groundwork for a larger study.

Your baby may be eligible if they are under 18 months of age and are scheduled to have cleft palate repair surgery at Perth Children's Hospital, with a plan for post-operative opioid pain management. Babies with known heart or lung conditions, or those who will need to remain on a breathing tube after surgery, would not be eligible.

## Key Eligibility Criteria

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### Inclusion (1)

- Patients aged 0 to 18 months undergoing cleft palate repair under general anaesthesia who will be receiving a post-operative opiate infusion.

### Exclusion (5)

- Children with known significant cardiopulmonary disease.
- Children currently taking opioid medications.
- Children going intubated to the HDU/ICU post-operatively.
- Children who will be unable to complete at-home oximetry pre-operatively.
- Inability to give informed consent.

## Locations (1 total)

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Perth Children's Hospital - Nedlands, WA, Australia