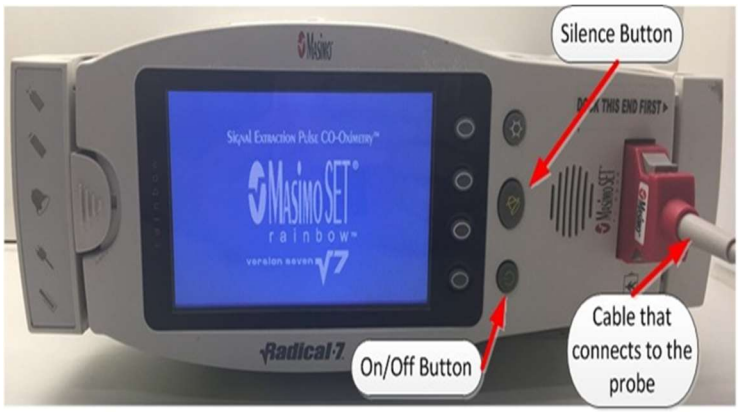
Overnight Monitoring for Children - Children's Hospital in the Home (CHITH)

What is a Saturation Monitor?

A: A machine used to measure the amount of oxygen carried by red cells in the blood and this is called pulse oximetry monitoring.
Gold Coast University Hospital uses a saturation monitor or 'Sats Monitor' called a 'Masimo' monitor.



- Monitoring is safe, easy and painless recording information about your child's oxygen levels over a period of time.
- A small sensor is wrapped around the finger or toe or in the case of an infant, the infant's foot.
- This sensor has a red light which is opposite another sensor.
- The sensors must be placed opposite each other and you will be shown how the sensor is attached.

What do I need to do to commence the monitoring at home?

A: There are three (3) steps that you need to know.
The Nurse will demonstrate the following three (3) steps to you before commencing the monitoring -

1. How to attach the sensor.
2. How to connect the sensor to the cable.
3. How to turn the monitor on.

Attaching the sensor

- Make sure the area is clean and dry.
- Wrap the sensor around the area, as shown, so that
- the red light is on one side and the other sensor
- is on the opposite side.
- We will provide you with a special tape to keep the sensor in place.

Connecting the sensor to the monitor

There is a cable that comes out of the monitor and connects to the sensor *(refer to image of 'Masimo' monitor).*
To connect 'push' the thin gold edge of the sensor into the top edge of the cable.

Turning the monitor on

Simply press the 'On/Off' button until the screen lights up *(refer to image of 'Masimo' monitor).*
Do not turn the Masimo monitor off during the required monitoring.

Changing the sensor site overnight

To protect your child's skin, it is recommended that you change the positions of the sensor every 4-6 hours. For infants, this could occur when changing or feeding. Changing the position means moving from one finger to another or one foot to another.

What do I do at the end of the monitoring?

A: Simply switch the monitor off and remove the sensor attached to your child.

- Press the 'On/Off button' until the screen shuts down.
- If your child is normally on oxygen re-apply the appropriate oxygen.
- A nurse will collect the monitor from your home.
- Your doctor will make an appointment to discuss the findings of the overnight oximetry study.

What happens if there are problems with the monitoring overnight?

A: The monitors are sensitive to movement and it is common for them to alarm at times which can occur for several reasons and does not always mean that there is a problem.

If the monitor alarm goes off **check your child immediately** to ensure that he/she is alright by:

- checking your child is breathing normally,
- his or her colour is normal,
- and your child is responsive.

If your child is well, breathing, a normal colour and responsive:

- silence the alarm by pressing the 'silence button' *(refer to image of 'Masimo' monitor).*
- refer to the troubleshooting table.

If your child is not breathing, then start basic life support and call an ambulance by dialling **000**.

If your child is an abnormal colour or you are concerned in any way immediately call an ambulance by dialling **000**.

Contact details

CHITH Nurse (7.30am – 4pm)	**Mobile: 0438 897 684**
Team Leader Children's Outpatient Department	**Phone: 07 5687 1173**
Team Leader Children's Inpatient Unit – after hours	**Phone: 07 5687 1238**

Home Consumables

Email: homeconsumables@health.qld.gov.au

For more information visit:

www.goldcoast.health.qld.gov.au OR
www.health.qld.gov.au/mass/prescribe/oxyen/default.asp

Troubleshooting when the Saturation Monitor is Alarming

Likely Cause for Monitor Alarm	What to do
Movement If your child is moving this can interfere with the ability for the monitor to trace the oxygen levels and the alarm may sound. You will notice the trace on the monitor has changed. 	**Check that your child is OK** ▪ If your child is awake and moving, then silence the alarm. ▪ Try and settle your child back to sleep. ▪ Once asleep or settled the trace should return to normal. 
Low Oxygen Saturation Reading If the saturation level is low (< 90%) the alarm will sound. If your child is unresponsive or not breathing start basic life support and call an ambulance by dialing 000	**Check that your child is OK** ▪ If your child is awake and moving then silence alarm, settle your child and re-check when the trace returns to normal. ▪ Check that the sensor is still attached to your child and is still connected to the cable properly. ▪ If your child is settled, the trace is normal and the sensor is attached properly and oxygen levels remain low, place your child back on their normal oxygen.
Pulse rate is high or low If the heart rate is > 200 or < 60 then the monitor will alarm. **If your child is unresponsive or not breathing start basic life support and call an ambulance – dial 000**	**Check that your child is OK** ▪ If your child is awake, moving and unsettled then silence alarm, settle your child and recheck. ▪ Check that the sensor is still attached to your child and that the cable is properly connected. ▪ If your child is settled and the trace is normal, but the heart rate remains high or low then check that your child to determine if they are unwell or have a temperature. ▪ Consider taking your child to hospital or calling **000**.
Faulty equipment If the monitor is unable to get a recording from the sensor it will alarm and a message saying “NO SENSOR” will appear	**Check that your child is OK** ▪ Check that the sensor is still attached to your child and that the cable is properly connected. ▪ If your child is awake, moving and unsettled then silence alarm, settle your child and recheck. ▪ Consider applying the spare sensor provided ▪ If unable to solve the problem, place your child back on their normal oxygen flow and disconnect the monitor.
Sensor applied too tightly	**Check that your child is OK** ▪ Check your child’s foot or toe to ensure that the skin is a normal colour and not cool to touch. ▪ If the sensor is too tight simply remove and reposition to the other foot or toe making sure that the tape is not too tight.