

Equipment used in Childhood Interstitial Lung Disease



Various types of equipment will be used in the management of childhood Interstitial Lung Disease (chILD), depending on diagnosis and symptoms. Speak with your child's healthcare team about the equipment and medical supplies your child will need. They will advise you on how to access and use the different equipment.

Oxygen sources

Oxygen concentrators

Oxygen concentrators draw air in from the room and separate the oxygen from other gases. It will concentrate the air to give your child greater than 90% oxygen. Oxygen concentrators are mostly electric and plug into a wall outlet. Generally, they are designed to be placed in a central location in the home. A length of lightweight plastic tubing is attached and will allow your child to move about the house. In case of power failure, a back-up oxygen tank may be needed.

There are Portable Oxygen Concentrators (POCs) which are smaller and are designed to be taken out of the house. Check if the oxygen delivery of the smaller compact machines is compatible with your child's oxygen prescription.

Oxygen gas cylinders

Oxygen cylinders contain oxygen as a gas under high pressure. These cylinders come in many sizes and function independently of an electric supply. The smaller cylinders can be used when leaving home, they can be wheeled on a trolley, or may be carried in a bag or backpack. A key is used to open and close the tank's valve. Your oxygen supplier will help you to organise cylinder refills.

Oxygen supplies

Nasal prongs or mask

Oxygen is delivered via different methods depending on your child's requirements. Oxygen can be inhaled either through nasal prongs (nasal cannulas) or through a mask.

Nasal prongs allow children to eat and talk while receiving oxygen therapy. The mask or prongs are attached to the oxygen supply by a length of tubing. Oxygen tubing is available in a range of lengths to suit the needs of the individual child and their environment. The longer tubes provide greater freedom/range of movement for children not able to move the oxygen source easily themselves. However, tubing can pose a significant trip and fall risk in a school or day care setting. Please consult your oxygen provider for the most suitable option for your child and their environment.

Tracheostomy mask and tube

If your child has a tracheostomy and needs extra oxygen, a special tracheostomy mask and tube will be used.

Pulse oximeter (or 'sat' monitor)

A pulse oximeter is used to monitor your child's oxygen saturation. Children who require night-time or continuous oxygen may have a pulse oximeter at home, but this isn't always necessary. Pulse oximeters come in a variety of sizes and may be a bedside monitor, palm size, or fingertip. When looking at these products it is important to consult with your healthcare team for advice relevant to your child.

Non-invasive ventilators

Ventilators

Some children with chILD need extra help breathing beyond the help that extra oxygen gives. Ventilators are machines that can give either a little extra breathing help or do all of the breathing for your child. The machines are fitted using either a face mask (mouth and nose), full face mask, nose mask or tracheostomy tube.

Continuous Positive Airway Pressure (CPAP)

There are many different types of ventilators, such as Continuous Positive Airway Pressure (CPAP). With CPAP, a machine gives a constant amount of air (with oxygen, if needed) to the child using a face or nose mask. The amount of air given can change based on the child's needs and comfort. CPAP devices are also used for several other medical conditions.

BiLevel Positive Airway Pressure (BiPAP)

BiPAP is like CPAP in that a machine gives a certain amount of air (with oxygen, if needed) to the child using a face or nose mask. With BiPAP, the amount of air is higher when the child breathes in, and lower when the child breathes out. A BiPAP machine can give a set breath rate, beyond the extra help given when the child breathes on their own.

Nebulisers

A nebuliser is a small machine that changes medication from a liquid to a mist so that it can be more easily inhaled into the lungs. You may also use a nebuliser for saline therapy and inhaled antibiotics.

Feeding tubes / buttons

A feeding tube/button is a plastic tube that is used to bypass chewing and swallowing if your child is not able to eat or drink safely. They may also be used when there is concern about growth and failure to thrive and its impact on development. These tubes can be used to deliver both food and fluids and can also be used for providing medications when needed.

There are different types available, including nasogastric (NG) tubes (put into the nose, then go down the throat into the stomach), gastrostomy (G) tube/button (put into the stomach), jejunostomy (JT) tube (put into the intestine), and nasojejunal (NJ) tube (which goes from the nose to the intestine). NG tubes and G tubes/buttons are the most commonly used options in children.

Enteral feeding

Enteral feeding is a method of supplying nutrients directly into the gastrointestinal tract. Feeds can be administered via syringe, gravity feeding set or feeding pump. The method selected is dependent of the nature of the feed and clinical status of the child.



FURTHER INFORMATION AND SUPPORT

Contact Lung Foundation Australia for more information, to access our support services and join our mailing list for regular updates and latest news.

Lung Foundation Australia Services

- Information and Support Team
- Lung disease information resources
- Education webinars
- Lung Cancer and Respiratory Support Nurses
- Support groups
- Peer-to-peer connections
- Referral to pulmonary rehabilitation and Lungs in Action exercise programs
- E-newsletter

External Links

- Australian Genomics
www.australiangenomics.org.au
- Consumer Information
www.genomicsinfo.org.au
- US Child Foundation
www.child-foundation.org

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