

ASSESSMENT & PREPARATION

Flow Splitter

A flow splitter divides oxygen from one source to several patients at independent low flow rates (0.1–2 L/min)

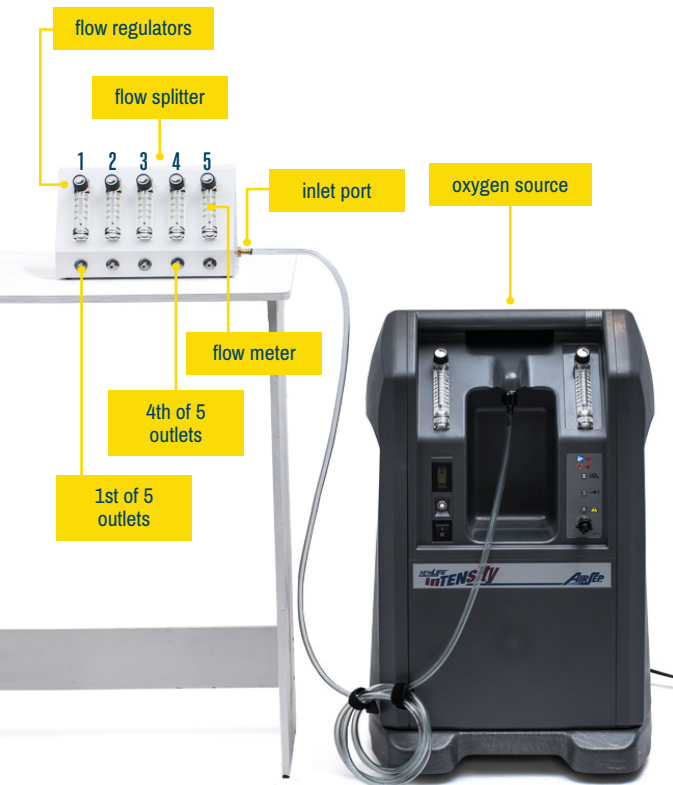
USE FOR

Nearly **all sick infants** may benefit from oxygen therapy

STANDARD OF CARE

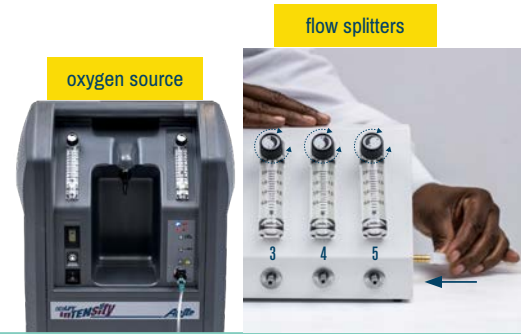
Target SpO₂ is

- **90–95%** for patients **on** O₂
- **90–100%** for patients **off** O₂



1 PREPARE DEVICE

- Open all flow splitter regulators
- Connect flow splitter tubing from oxygen source to flow splitter inlet port
- Turn on oxygen source



2 CHECK DEVICE

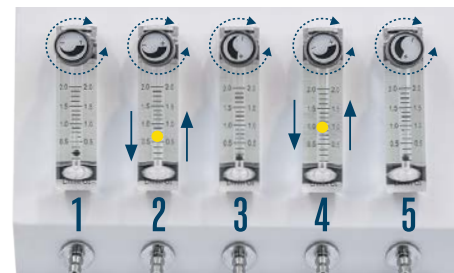
- Read flow meter at eye level and measure at the middle of the ball



3 ADJUST DEVICE

- Set oxygen source flow to provide a flow of at least 1 L/min oxygen more than the total requirement from all ports in use

When you alter one valve flow, check that the others have not moved and you adjusted the right valve for the intended newborn



4 PREPARE PATIENT

- Follow handwashing protocol**
- Wear gloves if needed**

Ports can be used in any order
Set required flow for the intended newborn

Connect tubing and place the cannula with appropriately sized nasal prongs on the patient



5 MONITOR PATIENT

- Monitor using a pulse oximeter
- Adjust flow regulator up and down until patient saturations reach **90–95%**

Assess RR, HR, work of breathing, and nostril patency while on oxygen therapy



? COMPLICATIONS

- Dangerous device positioning
- Inappropriate flow delivery
- No flow coming out of splitter

! Any concentration of oxygen administered without appropriate monitoring of blood oxygen saturation can cause harm

! DISINFECTION & INFECTION PREVENTION

- Clean hands with soap and water or alcohol before and after handling materials that will be used on a patient
- Begin reprocessing oxygen tubing according to ward guidelines immediately after use
- Clean unit housing and regulators with 70% alcohol after every use
- **i** Refer to the General Infection Prevention Module

REPAIR & MAINTENANCE

Flow Splitter

Units should be mounted and secured in a location where nursing staff can regulate and view flow meters easily. **If improperly secured, flow splitters may fall on to patients, causing permanent or fatal damage.**



⚙️ DAILY MAINTENANCE

Always wipe the flow splitter and oxygen source with alcohol using gauze or cotton swabs before first use and between patients

⚙️ PREVENTIVE MAINTENANCE

The flow splitter should be connected to an oxygen source and used for **at least 15 minutes once a week**. Each regulator should be allowed to flow at its maximum flow for this period of time

If there is no flow from **all ports** of the flow splitter

— Check that the oxygen source is on and that oxygen is flowing from the outlet port

— Check that the flow splitter tubing is securely connected to the oxygen source



If there is no flow from **one port** of the flow splitter, but **other ports are functional**

— Check the outlet port of the flow splitter for visible blockages like dirt or other debris

If debris is visible, use a test tube brush or thin rod covered with gauze to remove

Disinfect port with alcohol after debris has been removed

— Check with your hand that oxygen is now flowing



If oxygen is flowing from the flow splitter port, but **not from the oxygen tubing or nasal prongs**

— Visually check the tubing for kinks, blockages or bends

If you see any of these obstructions, replace the tubing or nasal prongs

— Test flow coming from nasal prongs in water



! CONTACT A TECHNICIAN OR MAINTENANCE DEPARTMENT IF DEVICE CONTINUES TO NOT WORK PROPERLY AFTER ADDRESSING THE COMMON ISSUES !