

Sri Sathya Sai Seva Organisations, India



Guidelines on Purchase of Oxygen Concentrators

Tips on Selecting the right oxygen concentrator

- Please read through before buying any concentrator.
- The most important is to understand that mild to moderate COVID patients may require oxygen concentration in the range of 90-93% at 1 to 5 litres per minute (LPM) and above 10 LPM when they are suffering with acute respiratory discomfort. Please note that this is only to sustain them at home or at an PHC before they can find a hospital bed.
- The most important point to note here is the oxygen percentage (90-93%).
- We can categorize the oxygen concentrators into small units (5 to 10 kg) suitable for COPD patients, medium sized units (15 to 19 kg) and large units (20 kg and above) suitable for critical care and for COVID patients.
- The small oxygen concentrators can have options from 1 to 9 LPM of flow rate, but this does not imply that they provide oxygen at more than 90% at higher flow rates of 5 LPM. In small oxygen concentrators, the 90% oxygen concentration is achieved only at lower flow rates of 1 to 2 LPM. At higher flow rates, the oxygen concentration drops to as much as 30% as you increase the flow. These are only suitable for COPD patients but not for COVID patients.
- Check the specifications of the oxygen concentrator and if you see 90% - 30% or 1L/min/2L/min), this typically implies that an oxygen concentration of 90% is available only at flow rates of 1 or 2 LPM, and at higher flow rates, the oxygen concentration drops to 30%. The air we breathe contains 21% oxygen. Thus, small (5

to 10 kg) oxygen concentrators at higher flow rates give an output of 21 to 30% oxygen, in other words, they are mostly blowing air at higher flow rates.

- The weight of the unit is a good indicator to understand the oxygen production capacity. A 5 to 10 kg oxygen concentrator typically contains a small compressor which will only manage to give an output of 90% oxygen at 1 or 2 LPM.
- A unit weighing 15 to 19 kg typically contains a compressor that can easily give an output of more than 90% oxygen at flow rates of 1 to 5 LPM (Ideal for COVID patients and critical care patients),
- A unit weighing 20 kg and higher will have a large compressor which can give an output of more than 90% oxygen at flow rates of 1 to 10 LPM. (Ideal for COVID patients and critical care patients and for dual patients to use same machine with accessories)
- Please do not consider only the output flow rate of an oxygen concentrator such as 5 or 10 litres per minute. The most important point is to make sure you get more than 90% (typically 93%) oxygen at the highest flow level.
- For an adult, a flow rate of 5 litre per minute at an oxygen concentration of 90-93% should be good enough.
- For a family, a unit giving 10 litre per minute at 90-93% oxygen concentration should be good enough as it can support 2 patients at once if the need arises. This can also assist senior citizens during home critical care if the need arises.
- Please read the specs of the oxygen concentrator carefully and ask your supplier to indicate the oxygen concentration at higher flow rates of 5 or 10 litres per minute.
- We wish all the best of health and hopefully none of us have to use an oxygen concentrator.

Samastha Lokaah Sukhino Bhavanthu