

## **Oxygen Concentrator Maintenance Tips**

There are few things that patient or patients caregiver need to keep in mind while using their Oxygen Machines. Some of these things require special attention while some are just basic maintenance practices.

### **Using a Voltage Stabilizer**

- ❖ In many countries, people face the problem of voltage fluctuation. This problem can be the killer of not just oxygen concentrator but any of your household electrical equipment too.
- ❖ After a power cut the power comes back with such high voltage that it can affect the compressor. This problem can be solved by using a good quality voltage stabilizer(2 KV). Voltage stabilizer stabilizes the voltage fluctuation and hence improves the life of the stationary oxygen concentrator. So it is **mandatory to use a voltage stabilizer.**
- ❖ **Do not use under capacity stabilizers that you use it for Refrigerator or TV.**

### **Placement of the Oxygen Concentrator**

- ❖ Oxygen concentrator can be kept anywhere inside the house but while operating, it should be kept **one feet** away from the walls, bed, sofa, etc.
- ❖ There should be 1-2 ft. of vacant space around the air-

inlet of your oxygen concentrator as the compressor inside the machine needs space to take in sufficient amount of room air which will be concentrated to pure Oxygen inside the machine. Air-inlet will be back, of the machine

- ❖ If enough gap is not provided for the air intake, then there is a possibility that the compressor of the machine might heat up as it wont be able take in sufficient amount of ambient air and the machine will give an alarm.

## **The Dust Factor**

- ❖ The dust in the environment plays a very important role in early service requirement of the machine.
- ❖ The airs impurities like dust particles which gets filtered out by the filters of the machine. These filters get choked after few months totally depending upon the dust level in the atmosphere inside the room.
- ❖ Though it is impossible to eliminate dust from air but you should avoid using your Oxygen Machine in a dusty environment also basic precautionary measures can be taken to reduce it like whenever house is being cleaned, machine can be switched off covered because the amount of dust level increases drastically during house cleaning.
- ❖ The machine, if used at this time can suck in all the dust

causing the filter to get choked soon.

## **Resting the Machine**

- ❖ Oxygen concentrators are made in such a way that they can run for 24 hours. But at times, they face the problem of heating up and stopping abruptly.
- ❖ Therefore, after continuous usage of 7-8 hours, the concentrator should be given a rest of 20-30 minutes.
- ❖ After 20-30 minutes the patient can turn the concentrator on and use it for another 7-8 hours before giving it a rest of 20-30 minutes again.
- ❖ When the machine is switched off, then the patient can use the standby cylinder. This will improve the life of the compressor of concentrator.

## **Mouse in the house**

- ❖ The stationary Oxygen concentrators face a huge challenge from the mouse running around in the house.
- ❖ In most of the stationary oxygen concentrators there are vents under or behind the machine.
- ❖ While the machine is being operated, the mouse is unable to get inside the machine.

- ❖ But when the machine is stopped then the mouse can get inside and create nuisance like chewing the wires and urinating on circuit board (PCB) of the machine. Once water goes into the circuit board then the machine breaks down. PCBs unlike the filters are quite expensive.

## **Filters**

- ❖ In some machines there is a cabinet/external filter outside that can be taken out easily. **This filter should be cleaned once in a week** (or more frequently depending upon operating conditions) with soap water. Note that it should be dried completely before putting back in the machine.

## **Humidifier Cleaning practices**

- ❖ Clean drinking water should be used for humidification to avoid/delay any blockages in holes of the bottle in long term
- ❖ The water should not be less/more than the respective min/max water level marks on the bottle
- ❖ Water in the bottle should be replaced once in 2 days
- ❖ Bottle should be cleaned from inside once in a day

## **Basic precautionary measures and cleaning practices:**

- ❖ The machine should not be moved on rough terrains where the wheels of the machine might break. It is highly recommended to lift the machine in such cases and then move.
- ❖ The Oxygen tube should not have any kind of leakage from the oxygen outlet where it is attached to the nasal prongs.
- ❖ Water should not be spilled over the machine
- ❖ Machine should not be kept near fire or smoke
- ❖ The outside cabinet of the machine should be cleaned with a mild household cleaner applied using a sponge/damped cloth and then wipe all the surfaces dry. Do not allow any liquid to get inside the device

## **Summary**

- ❖ Use a good quality voltage stabilizer (2KV)
- ❖ Keep the concentrator 1-2 ft. away from all walls
- ❖ Avoid using machine in dusty environment
- ❖ Do not run the machine continuously for long durations.

Give it some rest.

- ❖ Use clean water in humidifier and replace it every 2 days.
- ❖ Don't pull the machine with power cord as it gets loose connection and spoils the power cord
- ❖ All the above stated measures will improve the life of the oxygen concentrator and reduce your expenditure on repair/service of machine.

However, a concentrator can still break down anytime as after all it is a machine. Therefore, it is highly recommended to keep a **standby cylinder** with you always because it will take some time to get repair the concentrator. One should ideally keep a backup cylinder that would last for 24 hours.