Various types of equipment have been developed for oxygen therapy. These include face masks, nasal catheters, oxygen tents and oxygen chambers all of which are illustrated by the pictures in this booklet.
Oxygen Therapy

The air we breathe every day contains about 20 per cent oxygen. Physicians tell us that when we breathe, we take this air into our lungs where oxygen is absorbed from it. Then it is transferred to the blood. The heart pumps the blood to all parts of the body so that our entire body can secure its necessary oxygen from the blood. This is a continuous process and the 20 per cent oxygen contained in air is plenty for our needs.

When we become sick our lungs are sometimes affected or our heart becomes overworked with the result that it is difficult for our bodies to obtain enough oxygen from the air we are breathing.

Oxygen therapy is a treatment for certain kinds of sickness. This treatment consists of adding pure oxygen to the air that the sick person breathes. In order that physicians may give oxygen therapy to their patients, a large supply of high purity oxygen must be available. The Linde Air Products Company—a Unit of Union Carbide and Carbon Corporation—has made it possible for physicians to obtain large quantities of pure oxygen throughout the country and has provided them with a regulator to accurately measure the amount of oxygen they are giving their patients.
History of Oxygen Therapy

The use of oxygen in the treatment of disease dates back a hundred years or more. Then, there was very little high purity oxygen, it was very expensive and there was no satisfactory means of giving it to a patient. As recently as five or ten years ago oxygen was given only as a last resort after everything else had been tried. Today, physicians give oxygen just as soon as they see a need for it and it is believed to have resulted in the saving of many lives.

We cannot live without oxygen, so our lungs and heart work twice as hard to get it, which makes us tired and weak. The physician immediately recognizes our difficulty and prescribes oxygen therapy. That is, he gives us extra oxygen to breathe so that our lungs and heart can rest and we have a much easier time getting well. Oxygen therapy is a treatment that many physicians use as an aid in overcoming certain types of illness.
The Linde Air Products Company, working with leading medical authorities, has played an important part in the widespread use of modern oxygen therapy. The Linde Air Products Company supplies large quantities of high purity oxygen at reasonable prices, cooperates in scientific research and gives advice on the mechanical handling of oxygen whenever necessary.

**Linde Oxygen**

Linde Oxygen is produced from air by the Linde liquid air process. It was the Linde process which first made oxygen relatively inexpensive and easy to obtain.

When the oxygen has been separated from the liquid air, it is compressed into the gray and green Linde oxygen cylinders. Each Linde cylinder is stamped U. S. P. This means that the oxygen in it fully conforms to the standard established for the purity of oxygen used by the medical profession. Cylinders of Linde Oxygen U. S. P. are available in all sections of the country at regular commercial prices.
Before refilling, every Linde cylinder, regardless of where its contents might have been used, is evacuated to make certain that it contains nothing but pure Linde Oxygen U. S. P. In this way The Linde Air Products Company has made it possible for physicians to obtain pure oxygen wherever they find a cylinder of Linde Oxygen U. S. P. In an emergency a Linde cylinder stamped U. S. P. can be borrowed from the nearest garage, welding shop or factory with the assurance that its contents will be fit for human consumption.

Linde Regulators

It is necessary for the physician to know how much oxygen is being fed to the patient. Therefore, to control the flow of oxygen from the oxygen cylinder it is absolutely necessary to have a regulator that is accurate, safe and perfect in operation. The Linde Oxygen Therapy Regulator—Type R-51 is the finest that engineering skill has yet produced.

The oxygen in a cylinder is under a pressure of 2000 lbs. per square inch. Its pressure must be reduced and regulated before the physician can give oxygen to his patient. The Linde Air Products Company, with the advice and assistance of physicians and hospital people, has developed a regulator for this purpose. It is known as the Linde Oxygen Therapy Regulator—Type R-51.
Oxygen Therapy Apparatus

There are many different types of apparatus used to administer oxygen therapy. Linde Oxygen U. S. P. and Linde regulators are used with all types. The simpler types of apparatus are the face mask, the nasal inhaler and the nasal catheter. The more complete apparatus includes the permanent chamber, the portable chamber and the oxygen tent. All are effective when properly used, but the second group combines the comfort of conditioned air with the benefits of oxygen therapy. The Linde Air Products Company is in a position to give advice on any and all types of oxygen therapy equipment.

Oxygen Manifolds

Most types of oxygen therapy apparatus use one cylinder of oxygen at a time, but hospitals that have permanent oxygen chambers find it more practical to attach several cylinders together. This is generally done by means of an oxygen manifold. Manifolds are designed for any number of oxygen cylinders. Very often the oxygen chamber will be on the top floor of a hospital and the manifold in the basement with a pipe running from it to the chamber. Some hospitals are now giving consideration to piping the entire hospital with oxygen. This will, of course, eliminate the handling of cylinders.
Linde engineers are expert at designing oxygen manifolds and piping systems. Their services are always at your command. The Linde Air Products Company is always ready to give you the practical benefits of its 27 years' experience in the oxygen business and of its more recent experience in the mechanical aspects of oxygen therapy.

Linde Technical Literature
on
Oxygen Therapy

Available without cost to members of the medical profession and hospital personnel by writing to Union Carbide and Carbon Corporation, 30 East 42nd Street, New York, N. Y.
R-100—Recent Trends in Oxygen Therapy
R-101—Widening Scope of Oxygen Therapy in the Treatment of Disease
R-102—Council on Physical Therapy—Oxygen Therapy
R-103—Oxygen Therapy—A Critical Resume
R-104—Further Observations on Oxygen Therapy in the Treatment of Pneumonia
R-105—The Therapeutic Use of Oxygen in Heart Disease
R-106—Effects of Treatment with Oxygen in Cardiac Failure
R-107—Oxygen Therapy in Hospitals, Equipment and Management of Service
R-108—The Technique of Pharyngeal Insufflation of Oxygen
R-109—Researches in Oxygen Therapy Equipment
R-110—Designing and Building an Oxygen Therapy Unit
R-111—Linde Oxygen Therapy Regulator—Type R-51
R-112—Linde Oxygen U.S.P.
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