

## About Our Service

### Time Factor:

The steps described on the preceding page are normally done in two visits. However, in certain cases where patients travel long distances, we sometimes complete the process in one day.

### Yearly Check-Ups:

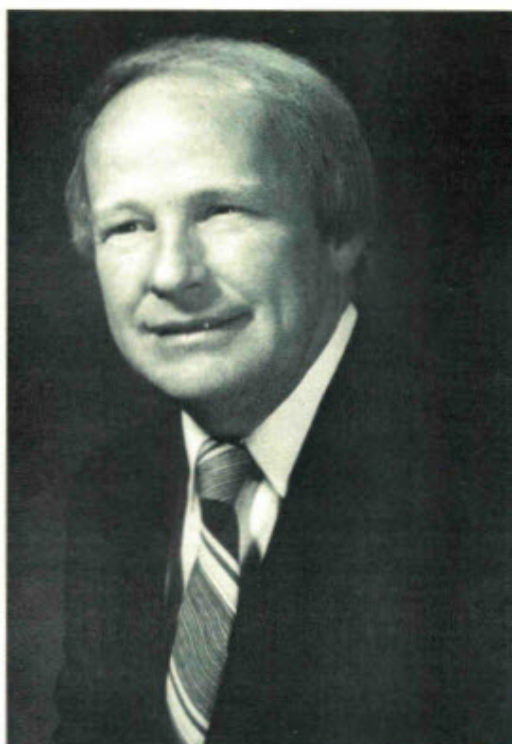
It is recommended that you return to our office once a year to have your prosthesis polished. Usually, there is an accumulation of salt and protein deposits on the eye in one year's time. Polishing removes these potentially irritating deposits. The ocularist will also evaluate the eye's fit and appearance. Sometimes an enlargement or reduction may be required because of subtle changes in the eye socket tissue.

### Removal and Cleaning:

At one time, all artificial eye wearers were told to remove and clean the prosthesis on a regular basis. It has since been learned that removal on a regular basis keeps the eye socket mildly irritated. Today's prosthetic eye generally needs less attention because of improved fitting and polishing techniques. Many people do not feel the need to remove their prosthesis between yearly visits to their ocularist. Removal and reinsertion of the prosthesis is an easy process, however, and your ocularist will show you how to accomplish this. If you do remove your prosthetic eye, be sure to thoroughly wash your hands first; this will reduce the risk of infection and irritation.

Prosthetic eyes by LeGrand Associates are available at the Home Office, PHILADELPHIA:

Medical Arts Building  
1601 Walnut St., Suite 616  
Philadelphia, PA 19102  
Telephone: 215-496-1307.  
Outside PA: 1-800-523-4314



*LeGrand Associates was founded in 1953 by Joseph LeGrand, Sr., who wore a prosthetic eye himself. He dedicated his life to advancing the art and science of oculistry. His innovations to the making of ocular prostheses are a part of the history of the artificial eye. However, he is remembered most by his patients and his associates for his warmth, compassion, and sense of humor.*

LeGrand Associates, ocularists, have offices in New York, New Jersey, Pennsylvania, and Virginia. For additional information, write or call the Home Office in Philadelphia, or visit our website at [www.legrandeyes.com](http://www.legrandeyes.com).

# The Prosthetic Eye



by

*LeGrand Associates  
Ocularists*

### *The Artificial Eye*

*Prior to World War II, there was only one type of artificial eye. This was the glass eye developed in Germany in the year 1835. For years, German craftsmen held a monopoly on the manufacture of the glass eye and particularly the special glass required for this work. Even those technicians who made glass eyes in this country depended on Germany for their raw materials.*

*The war terminated the exportation of glass eyes and raw glass. Destructive as war can be, it can quite often bring about improvements. In this case, war conditions brought about the development of the plastic eye.*

*Most of the credit belongs to the United States Army and, more particularly, to the Army dental technicians. These men applied the skills of their trade toward fabricating an artificial eye of the same methyl methacrylate used in making artificial teeth.*

*These first eyes made of plastic were by today's standards quite crude, but it was the beginning of a product which would soon render the old glass eye obsolete.*

### *The Modern Prosthetic Eye*

Soon after the invention of the plastic eye, the stock plastic eye was developed. As its name implies, the stock eye was selected for the patient from a selection of ready-made eyes. An eye was chosen and matched for general color, then shaped and adjusted to obtain an approximate fit of the socket. Reasonable matches were obtained in this manner, but usually the stock eye left much to be desired.

Fortunately, stock eyes have all but disappeared. For the best possible color match and

fit, the custom eye is unparalleled. It is a prosthesis, manufactured step by step, with each detail designed to match the wearer's companion eye. Eyes fitted by LeGrand Associates are made of plastic throughout. This includes the paint, iris, and sclera. The custom eye is made by men and women artisans whose training enables them to take an accurate impression of the eye socket and duplicate in paints an authentic replica of the human iris. A significant advantage of the plastic prosthesis is that it can be altered later. When the shape of a person's socket changes, a plastic eye can be enlarged or reduced to accommodate these changes. However, because of the heat and pressure involved in this process, it is risky to enlarge or re-color an eye that is more than four years old.

## *Steps in Making A LeGrand Custom Eye*

### *Iris Painting:*

The iris is painted on a curved plastic lens to which a pupil is attached. Non fading plastic paints are applied with fine brushes. The ocularist may add more fine details to the iris color as well. As many as 20 or more layers may be necessary to create all the striations of color found in a human iris.

### *Taking Impressions:*

A wax model is carved and tried in the socket several times until optimal comfort and appearance are achieved. Usually an impression

of the socket is taken on the back of the wax model using a soft alginate material. These steps assure us of achieving the best possible motility of the prosthesis.

### *First Laboratory Process:*

A plaster mold of the model is poured, and into this is cast the white part of the eye with the iris imbedded at the proper position.

### *Veining/Scleral Painting:*

On the white surface of the eye, red fibers are cemented which simulate the veins in the companion eye. Scleral tones of pink, gray, blue and yellow are applied as needed. Another layer of paint is often added to the iris.

### *Second Laboratory Process:*

This final work consists of covering the eye entirely with a thin layer of clear plastic which smoothly seals in the veins and gives the appearance of the corneal dome found on a human eye. After the plastic is cured, the eye is polished to a smooth luster, and the final fitting is done.

You will have seen the whole process from beginning to end, and you are assured of the craftsmanship which has gone into your custom-made eye. What's more, you leave knowing that you can go anywhere, do anything, and meet anyone with self-confidence.

