

Contact Lenses

An Italian painter, not an eye doctor, was the first person to develop the idea for contact lenses. Leonardo da Vinci, who is perhaps best known for his paintings of *The Last Supper* and the *Mona Lisa*, thought of the idea for contacts in the sixteenth century to help people see without glasses. He also was an engineer, sculptor, and architect.

The idea da Vinci had was to place a short tube filled with water against the eye. The tube would be sealed at one end with a flat lens. The water would come in contact with the surface of the eye and refract light rays in much the same way as a curved lens does. This idea is still valid today; many soft contact lenses are made almost entirely of water.

The human eye is extremely sensitive, so those working on the first contact lenses had to come up with just the right material for the lenses. In the 1680s, some French opticians developed an idea to spread a protective layer of gelatin over the eye and then cover that layer with a small, fitted glass lens. They thought the gelatin would work well because it was made up mostly of water. The lenses had problems. They kept falling out of people's eyes.

A.E. Fick, a Swiss doctor, created the first workable contact lenses in 1877. They were made from glass that had been molded into a curvature that matched the eyeball. They covered most of the eyeball, not just the cornea – or central portion – that today's contacts cover. Dr. Fick's contact lenses weren't very comfortable. But in spite of that, he proved that contacts that corrected vision problems could be developed and that the eye could tolerate the lens without damage.

Glass was the standard material for making contact lenses until 1936. That year, a German company, I.G. Farben, introduced a hard, plastic substance called “Plexiglas®.” Soon, Plexiglas was the standard material for making the lenses. In the

