Spectacles have been portrayed in paintings as early as the 1200’s. Usually worn by monks and scholars. But the idea of corrective eyewear that is placed directly on the cornea did not exist until the 1400’s, known as “The Renaissance Age.” It was not discovered as a contact lens but was thought of as an idea by a famous inventor, artist and mathematician named Leonardo da Vinci. Leonardo Da Vinci discovered that the optics of the eye changed when in water.

In 1636 French scientist Rene’ Descartes designed the “Descartes Tube.” A tube that was to be placed directly on the eye, filled with water with a lens placed on the opposite end. This tube was never put into production. Although many speculate if it had, it would probable have been the first telescopes.

1801 English scientist Thomas Young invented a lens with a wax ring around the edge to control the eye’s ability to remain moist. All contact lenses are Sclera lenses, or lenses that fit the entire front surface of the eye. And were made of blown glass—not molded glass.

Sir John Frederick William Herschel, a mathematician and an astronomer, was the first to take a photograph onto glass. He recognized and studied corneal irregularities and astigmatism, and that with these conditions; individuals’ vision could be improved by neutralizing the cornea. In 1827, he made the suggestion that a lens be ground that would conform to the surface and shape of the eye.

F.A. Mueller used a glass blown contact lens, manufactured by a German company that is still in production today (now they only manufacture glass eyes), to help a patient that needed an artificial eye, and a way to protect the other eye that had damaged eyelids. The contact lens was designed to prevent the eye from drying, and was worn constantly. It enabled the wearer to have “usable vision,” and was worn for approximately 20 years.

In 1888 Adolf Fick, a German ophthalmologist produced the first wearable contact lens. It was manufactured in Germany with a familiar company named Zeiss. Although “wearable” does not mean comfortable! The lens was 8-15 mm thick!

Working together with Eugene Kalt, a French ophthalmologist, and August Müller, a German medical student. Fick and Kalt were trying to treat keratoconus, while he tried to correct his own 14.00 diopters of myopia. Blowing glass lenses, as for artificial eyes, produced more comfortable lenses but the vision was very poor and difficult to reproduce. Fick asked Ernst Abbe of Zeiss if he could help. Zeiss initially made ground glass lenses on an experimental basis but from 1911 went into production of fitting sets of very high quality for distribution to ophthalmologists and opticians around the world. They were not very comfortable, and wearing time for these lenses could be 4-5 hours. Zeiss stopped making contact lenses in the late 1930s.
In 1910 the first Optometry class graduated from Columbia University in New York.

In 1900 Adolf Mueller Welt’s father produced a scleral contact lenses but found he needed to produce 70-80 lenses before he made one usable lens. In 1920 he abandoned the idea and moved his family to Stuttgart Germany. In 1927 Adolf produced his first “fluid less” contact lens using Schott Glass; which is glass know for its thinness. for one good one he abandoned the idea. Without his family’s support, his wife, Ruth invested her inheritance to finance the development of new lenses. In 1928 he applied for and was granted a patient. In 1933 he began a new annealing (or cooling) process to reduce stress in the lenses.

Joseph Dallos, a Hungarian physician perfected method of making molds of the human cornea, allowing for a more precise fit of contact lenses, the year was 1929.

In 1936, a New York Optometrist named William Feinbloom used the first plastic contact lens; it was still a sclera lens with a glass center.

1938 the first Polymethyl-Methacrylate or PMMA, lens material began production. It was a very popular material.

So far all were about 20 or more millimeters in diameter and sat over the white of the eye (sclera), Zeiss had tried smaller, corneal lenses in 1912 but without success. While in 1948 Kevin Touhy working with Solon Braff in San Francisco had an accident when making a scleral lens, the lens separated. It was the normal protocol to remake the lenses, but Kevin Touhy decided to polish the edges of the smaller section and try the lens in the eye. He found this to be a great advance on scleral lenses and started making lenses approximately 10-11mm in diameter. He was awarded a patient for the contact lenses, but a similar lens was being experimented with in Germany. In 1950 George Butterfield, an optometrist from Oregon filed a patent for a contact lens that flattened away from the cornea and reduced the thickness of the lens, and made the contact lens significantly more comfortable.

Czech chemists, Otto Wichterle and Drahoslav Lím introduced the modern soft hydrogel contact lenses in 1959.

In the United States, contact lenses were classified as a drug by the F.D.A.

Soft contact lenses were widely used by 1971, both spherical and soon after toric contact lenses.

In 1978, Gas permeable (GP) contacts were manufactured. They are made of a firm, durable plastic that transmits oxygen. Offering excellent eye health: because they don’t contain water (like soft lenses do), and they resist deposits, making them unlikely to contain and promote bacteria growth.
Although bifocal contact lenses have been used since 1982, they continuously are researching and improving the lens designs.

In 1999 disposable contact lenses were introduced. It has changed the way contact lenses are dispensed today.

With technology, our contact lenses of the future will look much different from the contact lenses of today. The possibilities are limitless, from medication dispensing, to health risk notifications. The sky is truly the limit.