The Good News and the Bad News

Refrigerators keep foods and beverages cold so that they will not spoil as quickly. To keep things cold, refrigerators use a *refrigerant*. A refrigerant keeps the inside of the refrigerator cold. In 1928, an American scientist developed a new refrigerant. It became known as CFC.

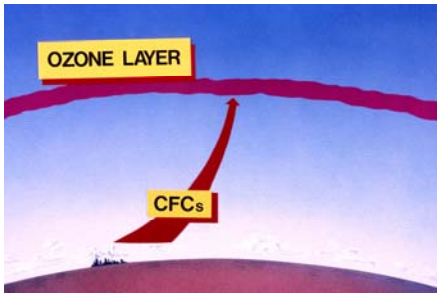
During the 1950s, the use of CFCs spread very rapidly around the world. This new refrigerant worked very well at keeping things cold. However, while CFCs were keeping our food cold, they were also destroying the **atmosphere**.

The atmosphere consists of layers of air that surround the Earth. These layers contain the oxygen we need to breathe. Oxygen is a gas. The atmosphere also contains other gases. These gases include **carbon dioxide** and nitrogen. Nitrogen makes up most of the atmosphere.

Gas	Percent of Atmosphere
Nitrogen	78
Oxygen	21
Other gases	1

The atmosphere is responsible for keeping conditions just right for all living things on Earth. One way the atmosphere does this is by protecting living things from the damage that sunlight can cause. Sunlight includes ultraviolet radiation. This radiation can cause skin cancer.

The atmosphere contains a layer called the ozone layer. This ozone layer protects us from most of the harmful ultraviolet radiation. The ozone layer is very thin. If all the ozone in the atmosphere were spread over the surface of Earth, it would form a layer about the thickness of a book cover. That's not very thick!



In 1985, scientists discovered that the ozone layer over the Antarctic was becoming even thinner. Scientists also discovered the cause. CFCs were escaping into the atmosphere and destroying the ozone layer. In 1987, countries throughout the world agreed to ban the use of CFCs. Scientists quickly came up with new refrigerants. However, CFCs can remain active in the atmosphere for over 100 years. It will take many years for the ozone layer to completely recover.