How did we come to live in a period of such amazing longevity? The following is a timeline of some of the major advances – both past and present – that have contributed to the increase in human longevity.

**Ancient Egypt to Middle Ages (38 years)**

Historically, human lifespan was significantly shorter due to factors like infectious diseases. For example, typhoid and cholera were major killers in many parts of the world. The use of chlorine to disinfect water and the development of modern sewage systems later helped reduce the spread of these diseases.

**1900 Average Lifespan: 47 years**

In the early 20th century, advancements in medicine and public health began to extend human lifespan. The development of antisepsis, a sterile surgical environment, and the Germ Theory of disease were significant milestones. Germs were shown to be responsible for many infections, leading to the development of vaccines like the smallpox vaccine.

**1922**

The first heart transplant was performed, although it was not successful.

**1929**

President Coolidge signs the Social Security Act, establishing old-age pension laws.

**1931**

The first insulin injection is given to a diabetic patient.

**1945**

Antibiotics are introduced, providing a new way to fight infections.

**1946**

The first blood transfusion is performed safely.

**1964**

The Surgeon General issues a report on “Smoking & Health,” linking smoking to cancer and heart disease.

**1966**

The Highway Safety Act is passed, leading to safer roads.

**1968**

The Occupational Safety & Health Act is signed into law, increasing workplace safety.

**1970**

The first ACE inhibitor is developed, used to treat high blood pressure.

**1980**

The rate of polio is eradicated worldwide.

**1996**

Dr. Jarvik-7 is introduced, the first fully functional artificial heart.

**2000 Average Lifespan: 76 years**

In recent decades, medical advances have continued to increase human lifespan. The development of stem cell therapy and targeted cancer therapy are examples of breakthroughs in treating diseases. Life expectancy has nearly doubled over the past century.

**2015 Average Lifespan: 79 years**

As we look to the future, the question remains: Is there a limit to how long humans can expect to live? With ongoing medical research and technological advancements, the answer may depend on how much we continue to invest in healthcare and scientific discovery.