

## The Longevity of the Patriarchs

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One of the most intriguing facts in the Bible is the immense life spans of the patriarchs mentioned in the Bible. Adam lived 930 years, Methuselah the longest lived of the patriarchs lived 969 years. Noah lived 950 years. Many scoffers state that these extended life spans are nothing more than myths and legends. They state that the figures given for the various ages of the patriarchs are fabricated.

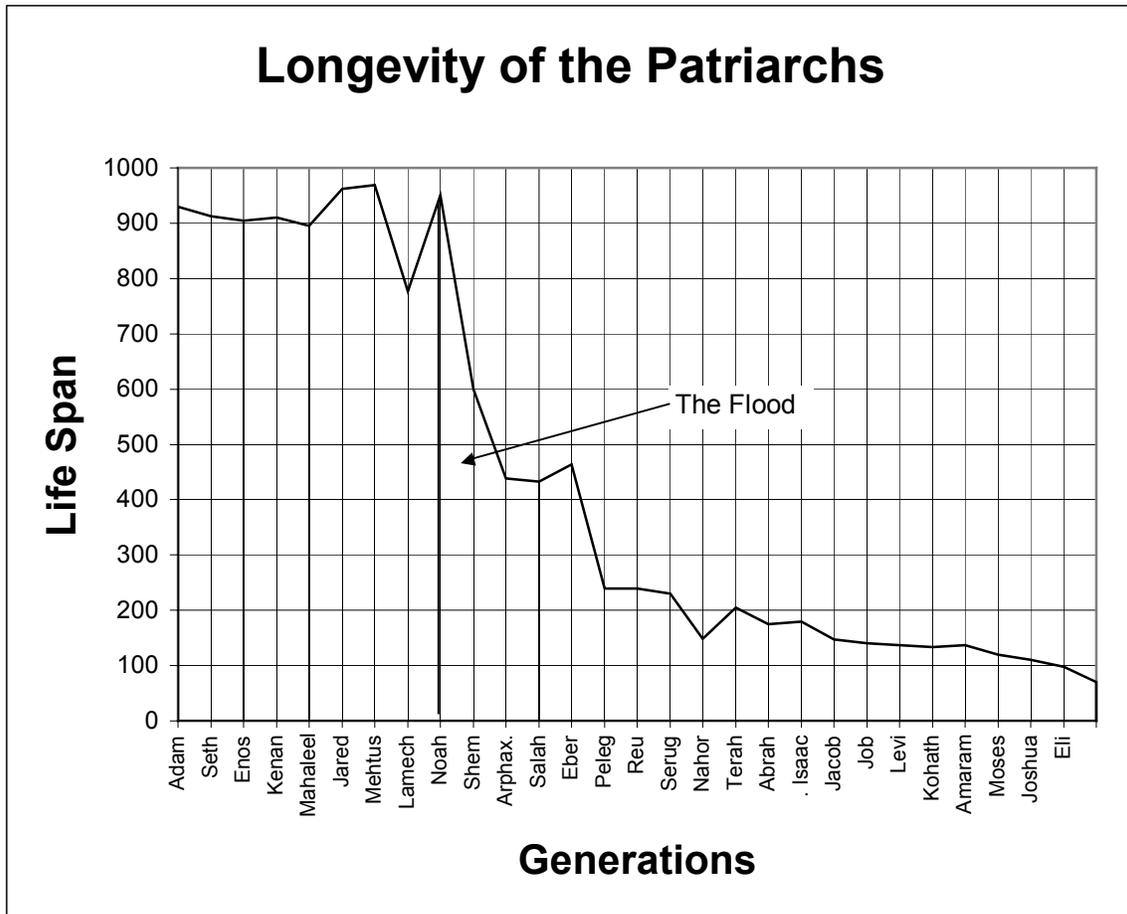


Figure 1. A graph of the life span of the patriarchs. Compare the life spans before the flood with those after the flood. The life span average before the flood was 912 years, after the flood 222 years.

There are many factors that could account for the lowering of the life spans after the flood. The Bible states that the flood would not only destroy the land dwelling air breathing animals but it would also destroy the earth. (Gen. 6:13; 9:11)

After the flood the earth was completely different than the earth before. There were widespread global differences. These would include changes in the climate, composition of the atmosphere, hydrologic cycle, geologic features, cosmic radiation reaching the earth, ozone concentration, ultra violet light, background radiation, genetics, diet, and a

host of other subtle and/or profound chemical and physiological changes. These changes caused a rapid decline of the longevity of post flood humanity.

The Jewish historian Flavius Josephus writes the following about this subject.

Now when Noah had lived three hundred and fifty years after the Flood, and that all that time happily, he died, having lived the number of nine hundred and fifty years. But let no one, upon comparing the lives of the ancients with our lives, and with the few years which we now live, think that what we have said of them is false; or make the shortness of our lives at present an argument, that neither did they attain to so long a duration of life, for those ancients were beloved of God, and [lately] made by God himself; and because their food was then fitter for the prolongation of life, might well live so great a number of years: and besides, God afforded them a longer time of life on account of their virtue, and the good use they made of it in astronomical and geometrical discoveries, which would not have afforded the time of foretelling [the periods of the stars] unless they had lived six hundred years; for the great year is completed in that interval. Now I have for witnesses to what I have said, all those that have written Antiquities, both among the Greeks and barbarians; for even Manetho, who wrote the Egyptian History, and Berosus, who collected the Chaldean Monuments, and Mochus, and Hestius, and, besides these, Hieronymus the Egyptian, and those who composed the Phoenician History, agree to what I here say: Hesiod also, and Hecatseus, Hellanicus, and Acusilaus; and, besides these, Ephorus and Nicolaus relate that the ancients lived a thousand years. But as to these matters, let every one look upon them as he thinks fit.

Antiq. III, 9.

Many ancient historians state that the pre-flood inhabitants had long life spans. Even though this is the case, many people believe that they were simply exaggerations or historical inaccuracies.

It can be shown very simply that the long ages were not myths. This can be done by an understanding of the exponential (natural) decay rate. In nature all things decay at a certain rate. For example if you expose a container of living organisms to a radioactive substance they will die off in what is called a natural decay rate or curve. If you plot their life spans on a graph you will arrive at type of curve that occurs in fig 2. This is the same type of curve that is produced by the death rate of organisms exposed to lethal doses of gas or other toxins.

If you take the points of the population in question and graph them you can see how close the actual decay rate or curve fits the exponential decay curve. This will yield an equation and a value that is called the coefficient of determination. This is a mathematical ratio that reveals how close your graph fits the exponential decay curve. This coefficient of determination will have a value of 0-1. If the coefficient is 1 this is considered a perfect match.

The patriarchs before the flood had extremely long life spans. After the flood the life spans decayed until a norm of 70 years was reached. These life spans can be plotted and the decay curve calculated to see how close the actual decay curve is when compared to the mathematically perfect exponential decay curve, which has a coefficient of determination of 1. When we do this we can show that the ages given for the death of the patriarchs after the flood were not fabricated, myths, or exaggerations.

Note in fig. 2 below that the coefficient of determination ( $R^2$ ) is almost .89. This means that the decay rate of the patriarch's death after the flood was only 11% from being a perfect match. In other words the decay rate for the declining life span for the patriarch after the flood is very close to being a match to the exponential (natural) decay curve.

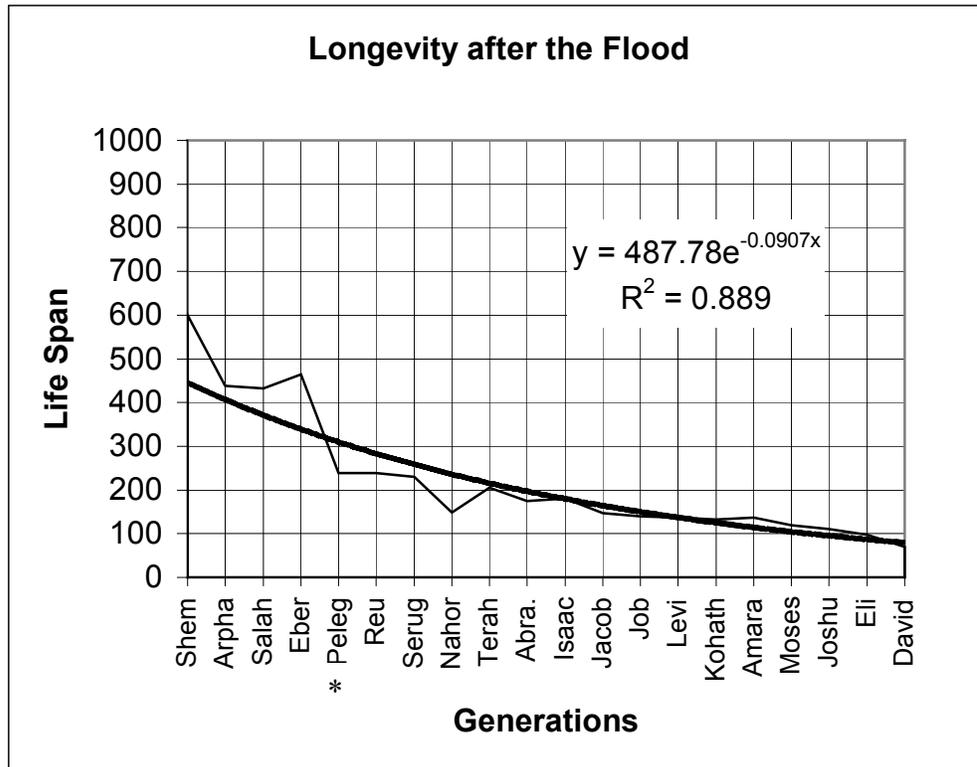


Figure 2. Graph showing the declining life span after the flood. It took 20 generations for a new equilibrium of 70 to be reached. \*Peleg's brother was Joktan, which means: "he shall be made little or small," notice the life span decline with Peleg!

### Implications

- The information source (divine revelation) for the ages of the patriarchs provided ages that closely matches a natural exponential equation.
- It is highly unlikely that people living at this time knew the mathematics of the exponential decay curve.
- It is very unlikely that the ages were fabricated since they closely match the exponential decay curve, which occurs naturally.
- The ages of death show that the post genesis flood world was being affected by some natural factors that were causing the declining life spans.

All of these factor indicate that the ages given were genuine and not fabrications.