## The Cause of Reduced Post-Flood Life Spans - Part I

So all the days of Noah were nine hundred and fifty years, and he died. ${ }^{1}$

Leonard Hayflick, an expert on aging at the University of California, San Francisco, denounced what he called "outrageous claims" by some scientists that humans are capable [of] living well past 100 years.
"Superlongevity," he said, "is simply not possible." ${ }^{2}$

I have devoted a substantial fraction of my time on and off over the past two decades to the problem of why humans only live to 75 years on average today while before the Flood they were living to an average of 925 years. Late in 1999 I reported briefly, in the "Research in Progress" column of The Biblical Chronologist that I had once again begun to take a serious look at this problem. ${ }^{3}$ Substantial progress had been made in understanding the true nature of the Flood in 1997 and 1998. ${ }^{4}$ I felt this new knowledge provided a uniquely advantageous base from which to launch a renewed attack on the longevity problem.

I am happy to report that my progress has been substantial. I feel the time has now come to begin

[^0]to share in these pages what I have learned so far, and what it all means.

## Increasing Human Life Spans: A Christian Perspective

A longstanding question of interest to those of us who believe that Genesis is an accurate account of ancient history is why human life spans were so very much greater in the past than they are today. Figure 1 shows a collection of life span data recorded in several books of the Bible, much of it from Genesis 5 and Genesis 11. The Flood is shown by the dashed line in the column on the right. Notice that life spans (vertical black bars) before the Flood were pretty consistently around 900 years. The only exceptions were Enoch-who did not die but rather was raptured when he was 365 years old-and Lamech, who appears to have died in the Flood. In contrast, life spans after the Flood rapidly became much shorter. The present regime of death near 75 years of age had already been reached by Moses' time, just one thousand years after the Flood. ${ }^{5}$ Why did human life spans diminish so dramatically-from 925 years on average to just 75 years on average - following the Flood?

Far more than just curiosity has motivated my research into this matter, of course. The question of why human life spans were once more than ten times what they are today is obviously one of enormous practical significance. Indeed, there is no medical or scientific question of greater practical significance than this one. A correct understanding of why human life spans were so much greater in antiquity raises the possibility that practical steps might be taken to restore human life spans to pre-Flood values today.

[^1]To the clear-headed Christian this is a welcome prospect. To Christians, death is no friend. It is a perversion that only entered creation as a result of $\sin .{ }^{6}$ It will be entirely vanquished and removed from the creation at the close of God's great plan of redemption. ${ }^{7}$ Death is Satan's stock-in-trade. The Savior dispenses life. ${ }^{8}$ The Christian who follows the Savior and understands His heart thrills at every advance of life and every setback of death.

Christians hail the great life-saving strides which have been made in medicine during the past several centuries. The work of Pasteur, in particular, in elucidating the germ theory of disease has saved millions of lives: from soldiers wounded in battle, to women giving birth in hospitals, to babies and children formerly decimated by smallpox, to patients undergoing surgery, to many, many more.

The West, with its Christian roots, has historically contended vigorously and tirelessly with the domain of death. We still do so today, with large, publicly supported research institutions devoted to finding cures for cancer, heart disease, and numerous other major killer diseases.

The only blot on the West's record in this regard is the hideous modern spectacle of abortion. This is a relatively recent blot, of course. Its presence in the West today is a symptom of a widespread loss of Christian moorings - a moral confusion at a very fundamental level. It signals the loss from the Western conscience of the simple truth that death is Satan's ware - that those who have embraced as their public policy the death of innocents have not embraced the One who is "the Life". ${ }^{9}$

Clear-headed Christians see death as an unwelcome evil and an enemy. They have always done whatever they could to wrest from death its estates. This same historic Christian sentiment impels us to do what we can to elucidate the cause of the dramatic reduction in life spans which followed the Flood.

## Cleaning the Slate

Before profitable analysis of the true issues surrounding the post-Flood reduction in life spans

[^2]can begin there are a number of common misconceptions and imprecise definitions in common use in regard to longevity in general which must be cleared up.

## "Aging"

The first of these is "aging". In common use "aging" can mean both "maturing" (or "growing up") and "declining" (or "growing old"). Contrary to this common use, biological considerations lead to a natural separation of the concepts of "growing up" and "growing old". "Growing up" is seen biologically as a time of cell proliferation and differentiation. In contrast, "growing old" involves an increasing loss of cell mass and increasing loss of functional ability originating at the cellular level.

Today humans "grow up" during their first two decades. They then enter a plateau for several decades, during which they are neither maturing physically nor substantially declining. This is followed by another few decades during which physical decline becomes apparent at an ever accelerating pace, culminating in death.

The phases of a person's life can be likened to the phases in the life of a building. The "growing up" phase corresponds to construction of the building. The plateau phase corresponds to the building's serviceable life. The decline phase corresponds to the building's eventual demise due to loss of structural strength in its materials.

It is obvious that the construction phase of a building is likely to be on its own schedule, independent of the duration of the other phases. By analogy we might also expect the "growing up" phase for humans to be on its own schedule, independent of the length of the plateau and decline phases.

The Biblical data imply that this is indeed the case, at least in first approximation. One could imagine that the average pre-Flood life span of 925 years was a result of the uniform slowing of the biological "clock" through the entire sequence of maturation, plateau, and decline. In such a case an individual would remain a baby for ten years instead of one, and would reach sexual maturity at 150 years instead of 15 years.

This does not appear to have been the case in

| B.C. | Bible | Bible |
| :---: | :---: | :---: |
|  | periods/events | life spans |
| 600 | 587 +1 B.C. |  |
| 700 |  |  |
| 800 | MONARCHY ${ }^{-}$ |  |
| 900 |  |  |
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| 1100 |  |  |
| 1200 |  |  |
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| 2500 | - - Mosés born - - |  |
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| 3000 | … = Jacob borr - - . . . . $3092+16$ B. C. - Isaac born |  |
| 3100 | $3092 \pm 16$ B. C. - Isaac born |  |
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| 3500 | Eber born-- - Shelah born $3520 \pm-24-$ B. - : - |  |
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| 4600 |  |  |
| 4700 | … $=$ Jared born- - |  |
| 4800 | ....- Mahalalel born - |  |
| 4900 | … Kenan born - |  |
| 5000 | - Seth born - |  |
| 5100 | 5176+26 B.C. |  |
| 5200 | VİRTUAL HISTORY |  |

Figure 1: Biblical life span data. The birth date of individuals whose life spans are plotted as solid vertical bars in column 2 are shown in column 1 .
the pre-Flood world. Notice, for example, that Enoch fathered Methuselah at age 65 (Genesis $5: 21$ ), which is well before 150 . This seems to imply that people "grew up" before the Flood at much the same rate as they do today.

We are thus led to separate the biology of "growing up" from the biology of the remainder of a person's life. In this study factors affecting the rate of maturation do not much interest us. Evidently it is only factors affecting the length of the plateau and decline phases which are of interest.

## The Impact of Modern Medicine on Maximum Life Span

Another common misconception is that people are reaching maximum ages today far in excess of the maximum age people could hope to obtain a thousand years ago. The popular notion here is that modern science and medicine have brought about a remarkable increase in the maximum length of life.

One has simply to recall the Biblical "threescore years and ten" ${ }^{10}$ to know that this idea is false. In point of fact, modern science has done absolutely nothing to increase the maximum age people can live to. People have been living into their seventies and eighties and beyond all through history. Science is totally at a loss at present to know how to extend the maximum human life span.

What modern science has done is to increase the average life span. That is, modern science and medicine have made it possible for a much larger percentage of the population to reach their seventies before dying. For example, in the past many individuals died in infancy and early childhood as a result of disease. Modern science has found ways of protecting children from these diseases, thus enabling many who would have died in infancy in the past to live on into their seventies and beyond in the present. The net effect of this is to increase the average age at death for the overall population.

Modern medicine has become very good at keeping people alive long enough for them to reach the decline phase; it has so far been able to do nothing to alter the age at which the decline phase is reached.

[^3]
## "Special" Groups and Individuals

Still another misconception is that "special" groups or individuals living today have maximum life spans remarkably different than the overall population-either far above or far below the normal life span today.

One reflection of this is the notion that "primitive" peoples only live into their thirties. This is a confusion of average and maximum life spans again. The average life span can be much reduced in primitive living conditions, but this does not alter the maximum possible life span. In primitive living conditions disease and exposure to a harsh environment can result in the deaths of many people while they are still relatively young. But one still finds elderly individuals in populations raised in primitive circumstances-individuals who are, in fact, in their eighties and nineties.

Another reflection of this special groups idea is the notion that people who live in particular geographical locations (e.g., Tibet) or who hold particular professions (e.g., Tibetan priests) live to extreme ages. In actual fact no dependence of maximum life span on geographical location or profession is found when authenticated records of individuals of verifiable identity are examined.

## "Normal" Life Span

Perhaps the most difficult misconception to correct is the belief that 75 years is a normal life span for humans. The Biblical life span data show overwhelmingly that this belief is simply false. They show that something went wrong with human longevity at the time of the Flood, resulting in the presently drastically reduced 75 -year life span. If we are to take Biblical history seriously, then we must conclude that death at 75 is not normal for humans at all.

Imagine for a moment an island community, cut off from the rest of the world, where everybody dies before age 40 due to a certain doubly recessive genetic defect which has come to be found in all individuals in the population. This defect causes them all to be highly susceptible to cancer. As a result, all contract cancer and die in their fourth decade of life.

If this community remained cut off from the rest of the world for many generations, it is easy to see
how they could ultimately come to believe that death by age 40 was normal for humans - and not only normal, but indeed proper. It is probable that many of them would respond with skeptical laughter and disdain if someone were to suggest the idea that many of their distant ancestors, who had discovered and populated the island thousands of years previously, had lived into their eighties and nineties. Certainly many of them would find the suggestion incredible that practical steps (i.e., marriage outside the island population) might be taken to restore an average life span of 75 years to their community. And some, no doubt, would assert that it was the will of God for humans to die before age 40, and that it was impious to meddle in such matters.

But they would be wrong, of course.
The Biblical life span data teach us that the post-Flood world, in which we live today, is like this island community. Seventy-five years has become the average life span. It has been this way for thousands of years. But it is wrong to mistake what we have become accustomed to for what should be.

If we truly believe the Bible then we must reorient our thinking. We must accept that the present human life span of 75 years is a very sad state of affairs indeed. Much more dramatic than our imaginary islanders, whose life spans were reduced a mere factor of two, our life spans have been reduced by over a factor of ten. Far from 75 years being "normal" and "proper" we must accept the conclusion that the entire human population today is, in fact, subject to a horrible, devastating malady.

## "Old Age"

We have learned to call this malady "old age", and we have learned to accept it. But the Biblical life span data teach us that this is entirely wrong-headed. They show us that "old age" is a false label, and a highly misleading one. When we come to grips with what the Bible plainly shows, and accept it at face value, we see immediately that nobody has ever died of "old age" at 75 or even at 125 . The Biblical life span data teach us that 75 is not an "old" age. Obviously, to call an individual "old" who has lived only 75 years, in a
population sporting many individuals in excess of 750 years, as was the case in the pre-Flood population, is laughable.

The Biblical life span data make it clear that nobody dies of "old age" at 75 years, for 75 years is not an old age for humans at all. People routinely die within a few decades of the young age of 75 today, but they do not die because of their age. Time is not the killer. They die because they have been afflicted with a devastating malady which tends to kill humans within a few decades of 75 years today. This malady decimates their bodies, causing them to lose functional ability and waste away while they are still very young-before they have achieved even one tenth of their life span potential.

## Malady $\overline{\mathbf{X}}$

To avoid confusing and misleading terms such as "aging" and "old age" and focus attention on the true essence of the longevity problem I will make use of the new term "Malady X" (read "Malady Xbar") from this point on. For example: "He died of Malady $\overline{\mathrm{X}}$ " rather than "He died of old age".

By substituting "Malady $\overline{\mathrm{X}}$ " for "old age", I mean to deliberately part company with the false idea that people die within a few decades of 75 today because they are aged and replace it with the true idea that people die within a few decades of 75 today because they are afflicted. I mean to make it perfectly clear that time is not the essence of the problem. I mean to emphasize that the essence of the problem is what medicine routinely calls disease.

If we are to think accurately about longevity in light of what the Bible shows us then we must begin to see what we presently call "old age" as simply another human disease. I have introduced the new term "Malady $\overline{\mathrm{X}}$ " as a temporary name for this disease since it lacks any other suitable name at present.

Malady $\overline{\mathrm{X}}$ is a disease that manifests itself by, among other things: loss of hair color, wrinkled skin, vision impairment, loss of physical strength, and increasing susceptibility to a large number of diseases. Malady $\overline{\mathrm{X}}$ symptoms are universally seen in all individuals today beginning in their fifth decade of life. That is, all individuals over the entire globe are afflicted with Malady $\overline{\mathrm{X}}$ today. The
sad result is death of most individuals within a few decades of 75 years of age, and of all individuals before 130 years of age - dramatically short of the known life span potential of humans, in excess of 900 years.

The research problem is to find the physical cause of Malady $\overline{\mathrm{X}}$. The hope and expectation of this research is that once the cause of Malady $\overline{\mathrm{X}}$ has been found, a cure will be able to be formulated. Once a cure for Malady $\overline{\mathrm{X}}$ has been formulated, the expectation is that the symptoms of Malady $\overline{\mathrm{X}}$ will not appear in any individual's fifth decade and people will be able to go on living in the plateau phase for multiple hundreds of years, just as they did before the Flood.

## The \#1 Health Problem

Having clarified the fundamental essence of the longevity problem, we are able to correct another common misconception. This is the idea that killer diseases such as cancer and cardiovascular disease are mankind's primary health problems today. In actual fact, Malady $\overline{\mathrm{X}}$ is the primary health problem.

Cancer and cardiovascular disease are, for the most part, diseases of "old age". That is, they prey on individuals already weakened by Malady $\overline{\mathrm{X}}$. The implication is that the incidence of cancer, cardiovascular disease, and all other "old age" related diseases will dramatically decline once the cure of Malady $\overline{\mathrm{X}}$ has been elucidated.
Note that the converse is not true. Even if total cures for cancer and cardiovascular disease were to be found, people would still continue to die of Malady $\overline{\mathrm{X}}$ within a few decades of 75 years.
A cure for Malady $\overline{\mathrm{X}}$ is clearly, by far, the most pressing medical need today. All other diseases combined pale in significance relative to the misery and suffering caused each year by Malady $\overline{\mathrm{X}}$.

## The Difficulty of the Research Problem

But finding a cure for Malady $\overline{\mathrm{X}}$ is no easy task. The newspaper quote at the start of this article makes it abundantly clear that, despite multiple millions of dollars spent on the problem, scientists are presently at a complete loss regarding how human life spans might ever be significantly increased beyond 100 years. They see no prospects
at present. Some feel it is a fundamental impossibility. Obviously, the problem is not a trivial one.

This point is underscored by consideration of present life span statistics. Despite a present global population of six billion people -implying in excess of two hundred thousand deaths per day world wide (i.e., eighty million deaths per year)a life span in excess of 120 years is still a rare and remarkable event, and not one verifiable case of any individual living past 130 years of age has ever been found.

The difficulty of the problem is further emphasized to the Bible believing Christian by the fact that the scourge of reduced longevity has been with us since the Flood. That is, the Biblical fact that humans once lived in excess of 900 years has been known for over five and a half thousand years. The problem of reduced longevity since the Flood has been abundantly obvious for at least five thousand of those years. Yet in all that time, despite the obvious enormity of loss to all of us resulting from reduced longevity, no one has been able to discover how to do anything about it.

The biggest difficulty for the modern researcher is that everybody suffers from this disease today. Normally a researcher studies a disease relative to a group of healthy individuals. In the case of Malady $\overline{\mathrm{X}}$, there are no healthy subjects to compare to.

If even one individual were to live to, say, 150 years today, we can be sure that that individual would be the subject of intense scientific interest. The interest would focus around the question of what factor or factors had allowed that individual to live so long. Every effort would be made to isolate factors in that individuals experience which were different from everybody else, with the expectation that one or more such factors must be responsible for the difference in longevity observed.

But we have no such individual or group of individuals to compare to today. Everybody is afflicted with Malady $\overline{\mathrm{X}}$. The search for difference factors has no subjects from which even to begin.

## Conclusion

Today, that is.
The search does have a few subjects to work with from the distant past, if we are willing to believe
the Bible: Adam, and Noah, and Arpachshad, and Peleg, and Abraham for example. The Bible tells us plainly that these men all enjoyed life spans in excess of 150 years.

All investigators admit that the problem of how to extend human life spans is one of extreme difficulty. Reliable data from subjects living beyond even 150 years - the sort of data one really needs to have any serious hope of cracking the problemcan not be obtained today. Many researchers have already spent much time groping about in the dark for some clue to the mystery of human longevity, with nothing to show for their efforts.

Only one soft ray transgresses this blackness. It glimmers unobtrusively but faithfully from a lone window, which looks out dimly upon an ancient world, where thousands of multi-centenarians once worked and played. I suggest the time may have come to take a careful look through this window. It seems our only possible hope. And perhaps it was put there for this very purpose. $\diamond$

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[^0]:    ${ }^{1}$ Genesis 9:29, NASB.
    ${ }^{2}$ San Francisco (AP), "Life expectancy may be nearing its upper limit," The News-Gazette (Champaign-Urbana, Illinois), 19 February 2001, p. A-1 and A-6.
    ${ }^{3}$ Gerald E. Aardsma, "Research in Progress," The Biblical Chronologist 5.5 (September/October 1999): 7-8.
    ${ }^{4}$ Gerald E. Aardsma, "The Cause of Noah's Flood," The Biblical Chronologist 3.5 (September/October 1997): 1-14.; Gerald E. Aardsma, "Space Rock Impacts and Noah's Flood," The Biblical Chronologist 4.2 (March/April 1998): 1-11.

[^1]:    ${ }^{5}$ Psalm 90:10a.

[^2]:    ${ }^{6}$ Romans 5:12.
    ${ }^{7}$ Revelation 20:14.
    ${ }^{8}$ John 1:4.
    ${ }^{9}$ John 14:6.

[^3]:    ${ }^{10}$ Psalm 90:10.

