

## Sex and longevity

*Sovereign, my master, aging has come, old age has struck down, exhaustion has arrived, weakness keeps returning. Every day is spent sleeping, as if one had gone back into childhood. Sight is worse, he becomes hard of hearing, strength is lacking, the heart is weary, the mouth is silent, it no longer speaks, the heart is no longer in it, he no longer remembers yesterday, all the bones are suffering, the good is transformed into bad. Every taste disappears. The impact of old age on humankind is bad in every respect. The nose is blocked, it doesn't breathe anymore, it's as painful to get up as it is to sit down.*

Thus, 44 centuries ago, did the [vizier Ptahhotep](#), who was going to take on an "old-age stick", i. e. an assistant, describe to King Djedkare Isesi at 110 years old the infirmities that were beginning to overwhelm him. [The Age of 110 and old-age among the Egyptians. Gustave Lefebvre. 1944.](#) Note: it is explained in the article that these were invented lifespans; no Egyptian of antiquity probably lived more than a hundred years.

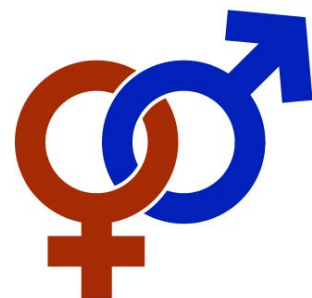
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**Theme of the month: Living longer, an inequality in favor of women?**

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### Differences among animals

In many animal species, there are sex differences when it comes to lifespan. These differences can be dramatic, for example, in the case of social insects. Certain [queens of an ant species](#) can live up to 30 years, while males die quickly after fertilization, a few days after reaching adulthood.



Among animals in general, sex differences are mostly not significant. A distinction must also be made between the average or normal lifespan, lifespan in the wild and maximum lifespan protected from the elements and predators in captivity. For lifetime in the wild, the strongest animals (which can be the females or the males depending on the species) live longer. In captivity, it tends rather to be the smallest animals that live longer.

In some species the time of reproduction is the end of life, the most well-known and spectacular example being that of salmon. Sometimes females can live longer so as to bear the next generation. This is the case for the [antechinus](#), a

kind of marsupial. The female will survive until the young can become autonomous and sometimes the female may even have a second litter. As for the male, it has the shortest life of all mammals, less than a year, a life that ends very soon after reproduction.

One factor that could create a significant gender difference, namely the menopause mechanism, exists, outside humans, only in some cetaceans, including killer whales.

### **Differences between women and men: the natural and the cultural**

It is widely known that women today live longer on average than men. Thus [in France in 2017](#), life expectancy reached 85.4 years for women and 79.5 years for men. This is, of course, due in part to the fact that maternal mortality in childbirth has become a very rare event. While slightly more men than women are born, the number of women on the planet exceeds that of men. Until a few decades ago, sex difference was first evident in the higher number of deaths of young boys than girls. Today, except in the poorest countries, infant mortality has become low or even negligible and it is mainly in later life that differences become noticeable. In France in 2018 58% of people aged 80 were women, 69% of people aged 90 and 81% of centenarians. Among the very few people aged over 110 there are almost no men. The [10 people who have lived \(in a proven way\) the longest](#) in the history of humanity are for that matter women.

In all the [countries of the world apart from who extremely poor ones](#) (Mali and Eswatini, formerly Swaziland), women live longer on average than men, despite having a standard of living, including access to healthcare, which is often lesser than that of men, especially in old age, often synonymous with isolation.

Life expectancy, both average and maximum, is, therefore, an area where it is better to be born a woman than a man.

The causes of these differences are almost certainly biological but there are also socio-cultural reasons:

- less risk-taking, for example, fewer deaths in car accidents;
- less violence, especially fewer murders (committed, but also suffered, despite feminicides);
- fewer suicides;
- less tobacco and alcohol consumption.

In many rich countries with long life expectancies, life expectancy for men is increasing more than for women and therefore the difference in life expectancy between women and men is decreasing. This is probably due to a cultural reason, namely that the behavior of people of both genders is becoming more uniform, but perhaps also because without ground-breaking medical progress we can

hardly progress in life expectancy any more and therefore those who are "at the top" no longer climb up much.

Finally, also much less positive, according to statistics on healthy life expectancy, the part of life without significant health problems [is generally lower among women](#). With regard to inequality in the face of suffering and non-fatal diseases, some of the explanations are certainly cultural, particularly the poorer medical cover and assistance for elderly women. But biological differences can also explain this situation, particularly the profound transformations that occur during menopause. According to a [recent study by Austrians](#), it appears that women's faces change more quickly than men's after the average age of 50, the average age of menopause.

### **Castration, a recipe for longevity?**

This paragraph is not supposed to be taken too seriously. As they say, *Don't try this at home*. Some people believe that the removal of male hormones has a positive effect on longevity. A [2012 study](#) found that eunuchs lived longer than other people whose age of death was known in Korean royal palaces. However, this could be due first of all to the better treatment of these people compared to the "ordinary" members of the entourage of the Korean leaders of the past.

In a much less invasive way, some have proposed hormone injections as a way to promote longevity. But as there are major effects on physical appearance there have been no large-scale experiments with men taking female hormones.

It should be noted, with regard to sex and longevity, that sexual abstinence has often been proposed as a means of longevity, of "preserving energy", with this being seen as complementary to various religious factors, [for example in Taoism](#). [However other sources suggest that a regular sex life, within reason, promotes longevity.](#)

Today a lot more people are changing sex than used to be the case. It is as yet too soon to estimate the impact on life expectancy. And psychological and social circumstances will very probably have a major impact in this area before the purely physiological aspects.

### **Future avenues for a much longer healthy lifespan for women... and for men.**

The difference in life expectancy can be explained in particular by better behaviors and a better lifestyle (in the case of women), despite generally less favorable conditions. Modest gains in longevity are possible for men by examining differences and imitating what women do.

And yet all too often [medical experiments only concern men](#). And even as far as animal experiments are concerned, very often they are only carried out on male animals. It is obviously harmful to women not to observe specific health issues, but also potentially for all humans.

When it comes to significant gains in longevity, the difference in maximum life expectancy can ultimately be explained by genetic factors. There are differences between women and men. We know that many genes are associated with longevity and we know that [almost all men and women differ](#) in the presence of two Y chromosomes in women and an X and a Y in men.

To date, no "longevity gene" with a significant impact has been found on the X or Y chromosomes (or indeed on any gene). It is probably more likely to be due to the combination of genes. Research that focuses on the potential sequencing of millions of people may be able to detect some.

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**The good news of the month: The World Health Organization (WHO) is asking people for their views about a decade of "healthy aging"**

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The WHO has announced that the 2020-2030 decade will be devoted to healthy aging (but the term longevity would be preferable to aging). It invites citizens and organizations to take a position on this issue. Several international organizations have spoken out in favor of making biomedical research for a much longer healthy life the priority for progress in this area.

If you wish to you may support or take inspiration from the [position of the International Longevity Alliance](#) so as to express [on the site of the WHO](#), until September 8, 2019, your point of view on the subject.

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**To find out more:**

- See: [heales.org](http://heales.org), [sens.org](http://sens.org), [longevityalliance.org](http://longevityalliance.org) and [longecity.org](http://longecity.org)