

# Statistics show people more likely to die on their birthday

June 12 2012, by Bob Yirka

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Image: Wikipedia

(Phys.org) -- Researchers studying mortality rates on over two million people over a forty year time span have found that statistically speaking, people are more likely to die on their birthday, than any other day of the year. Bumping the numbers are suicides by men, who apparently find the ultimate milestone a little too hard to bear. But those deaths aren't enough to account for the overall fourteen percent increased likelihood that any given person will die on the same day of the years as the day they were born compared to any other day of the year.

Because the research is still so new, it's hard to say why people are more likely to die on their birthday, but it seems likely that it's due to the stress of facing the fact that they have grown another year older, which for many is a time for looking over a lifetime and comparing time left with aspirations, goals and dreams. Such stress can of course lead to heart attacks, strokes and even in some cases accidents as those marking the passage of another year may attempt to do things to prove they are still as capable as when they were younger, things that can lead to an

untimely death, e.g. sky diving, mountain climbing, etc. Bolstering this theory is the fact that in the study, the team found that dying on a birthday was most common for people over the age of 60.

The study, led by Vladeta Ajdacic-Gross, has led to a paper being published in the *Annals of Epidemiology*, in which the researchers say that they found their numbers by studying almost two and a half million deaths over the period 1969 to 2008. They say that people on average have an almost twenty percent more of a chance of dying on their birthday from cardiovascular disease, than any other day, and the number is slightly higher for strokes. Interestingly, they also found that there is even a slightly greater risk of dying (10.8) on that special day from cancer.

But the number that really stands out, of course, is the 34.9% greater chance of dying by suicide by men on their birthdays. A sobering statistic if ever there was one. Women on the other hand showed no statistical increase in [suicides](#) on their birthdays, which might indicate that women don't take getting older so hard, or are more concerned about those they will be leaving behind.

The research team says that thus far, some have suggested higher [death](#) rates on birthdays is likely attributable to those trying to hang-on for whatever reasons, to reach their [birthday](#). They say their research doesn't agree with such speculation however and that added stress on birthdays is most likely the culprit, noting that average alcohol consumption goes up on birthdays as well.

**More information:** [Death has a preference for birthdays—an analysis of death time series, doi:10.1016/j.annepidem.2012.04.016](#)

## **Abstract**

### Purpose

To examine the relation between the day of death and the day of birth. To determine whether the “death postponement” hypothesis or the “anniversary reaction” hypothesis is more appropriate.

### Methods

We analyzed data from the Swiss mortality statistics 1969–2008. Deaths below the age of 1 were excluded from the analysis. Time series of frequencies of deaths were based on differences between the day of death and the day of birth. We applied autoregressive integrated moving average modeling with intervention effects both in straight and reverse time series.

### Results

The overall death excess on the day of birth was 13.8%, mainly because of cardiovascular and cerebrovascular diseases (more in women than in men) as well as suicides and accidents (in particular, falls in men).

Unexpectedly, we also found an excess of deaths in cancers. An (negative) aftereffect was found in cancers, and (positive) anticipatory effects were found in falls in men.

### Conclusions

In general, birthdays do not evoke a postponement mechanism but appear to end up in a lethal way more frequently than expected (“anniversary reaction”).

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