Autumn babies more likely to hit 100

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Good news for autumn babies: those born between September and November are more likely to live to 100 than those born in other months of the year.

22nd-century boy? *(Image: Jeff J Mitchell/Getty Images)*

The month in which you are born can influence the environment in which you develop – inside the womb and out. Evidence suggests that this can affect your behaviour and genetics and have a lifelong impact on your health.

Previous research has suggested that those born in the autumn are more likely to live longer than those born at other times of the year. However, researchers could not rule out the possibility that this advantage may have been due to differences between the families studied, such as socioeconomic status, which also influences early environment.

So Leonid Gavrilov and Natalia Gavrilova, both at the University of Chicago, gathered data from more than 1500 centenarians born in the US between 1880 and 1895. They compared birth and death information with that of the centenarians' siblings and spouses – the siblings would have experienced a similar early environment and genetic background and the spouses would have a experienced a similar environment in their adult life .

The pair found that more centenarians were born in the autumn than in the spring. They also analysed all births in the US over a year within this period to rule out the possibility that this was because more people were born at this time of year. There was no significant fluctuation during autumn.

Most centenarians were born between September and November, and the fewest number were born in March, May and July. The results were more pronounced for babies born between 1880 and 1889 than those born between 1889 and 1895.

"The most popular hypothesis to explain the finding is that seasonal infections in early life are creating long-lasting damage to human health," says Gavrilov, who recently presented his work at the Population Association of America annual meeting in San

Francisco. Other possible explanations include seasonal vitamin deficiency or seasonal variation of hormone levels, he says.

The seasonal-infections hypothesis tallies with the finding that the effect was more pronounced before 1889 than after. "Mortality from infectious diseases was decreasing over time during the end of the 19th century, and this is particularly the case for summer infections ," says Gavrilov.

Gavrilov's findings chime with previous research by Alexander Lerchl at Jacobs University in Bremen, Germany, who studied the relationship between birth month and life expectancy in Germany. "[This] data is in almost perfect agreement with my data, which found that people born between October and December had a statistically significantly older age at death. The overall picture is the same," he says.

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