

Science sinks teeth into Neanderthal weaning habits

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A photo taken on July 2, 2008 in Eyzies-de-Tayac, Dordogne, shows a model representing a Neanderthal man on display at the National Museum of Prehistory. Neanderthals may have started weaning their young from seven months of age and transferred them to solid food by just over a year, a fossil tooth study said Wednesday.

Neanderthals may have started weaning their young from seven months of age and transferred them to solid food by just over a year, a fossil tooth study said Wednesday.

This is within the range for modern humans and chimpanzees, a research team wrote in the journal *Nature*, but may have been later compared to Stone Age Homo sapiens.

Data does not exist for the age at which humans from that period weaned their children, but some scientists hypothesise it would have been at a younger age than [Neanderthals](#).

Shorter breast-feeding would have meant quicker intervals between children and more rapid population expansion for humans.

An enigmatic branch of the human family tree, Neanderthals lived in parts of Europe, Central Asia and Middle East for up to 300,000 years but vanished from the [fossil record](#) about 30-40,000 years ago.

Why they disappeared is one of the hottest topics in anthropology. Theories say they may have been victims of [climate change](#) or were massacred by their H. sapiens cousins—some also advance the later weaning scenario.

For the study, an international team of scientists developed a radar technique to read levels of barium, a chemical element in milk, in [tooth enamel](#)—almost like the [growth rings](#) of trees.

They compared readings from a juvenile Neanderthal fossil tooth with those from modern human and macaques teeth.

Barium levels in teeth have in other research been shown to be higher during breastfeeding in human children, dropping during weaning, and then again after the conversion to solid food.

The mineralisation of barium in human tooth enamel already starts in the second trimester of pregnancy, when the immature teeth are still in the

[jawbone](#).

The study noted that humans may completely wean their offspring from the age of one year without serious health effects, but generally do so around an average 2.3 to 2.6 years.

For chimps, the average weaning age is 5.3 years.

Study co-author Manish Arora stressed the tests were done with only one Neanderthal sample and "it would be reckless of us to say this would be the norm for all Neanderthals".

"We look forward to this technique being applied to more Neanderthal samples so that a more reliable consensus on weaning patterns in Neanderthals may be made," he told AFP.

The new method could also aid studies on the benefits of breastfeeding in modern populations.

More information: [dx.doi.org/10.1038/nature12169](https://doi.org/10.1038/nature12169)

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