

# **Isotopes found in bones suggest Neanderthals were fresh meat eaters**

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Tooth of an adult Neandertal from Les Cottés in France. Her diet consisted mainly of the meat of large herbivore mammals. Credit: MPI f. Evolutionary Anthropology/ A. Le Cabec

An international team of researchers has found evidence that suggests at least some Neanderthals were mainly fresh meat eaters. In their paper published in *Proceedings of the National Academy of Sciences*, the group describes testing protein samples discovered in Neanderthal bones and what they found.

Ever since scientists discovered the extinct species of human we now know as Neanderthal, our view of them has been changing. Initially, it was believed they were much less intelligent than us, had few if any skills, and in general, were more ape-like than human. And that included their [diet](#)—big apes are vegetarian, so it seemed logical to conclude that Neanderthal were, as well. But research over the years has shown them to be far more sophisticated than researchers first realized—they even managed to mate with modern humans. One remaining mystery is why they vanished. In this new effort, the researchers have not found any evidence to solve that mystery, but they have found evidence that suggests Neanderthals were neither vegetarians nor scavengers content to eat meat killed by other animals.

The evidence the team reports came in the form of [protein](#) found in the collagen of preserved Neanderthal bones found at two dig sites in France, Grotte du Renne and Les Cottés. The researchers found that ratios of nitrogen-15 and nitrogen-14 were similar to those found in modern major meat [eaters](#) such as wolves. They claim that this adds to the growing list of findings suggesting that Neanderthals were very much

fresh meat eaters—evidence for a carnivorous diet includes spears found near Neanderthal remains, along with butchered animal bones. There is also evidence suggesting Neanderthals had a thicker thorax than [modern humans](#)—a feature that would allow for larger kidneys and livers often found in animals with a diet heavy in protein.

The researchers suggest that when the evidence is considered as a whole, it appears very likely that fresh meat was a main constituent of the Neanderthal diet—meat derived from vegetarian animals. A likely candidate is fawns, which would have been relatively easy to spear; their bones have been found at Neanderthal dig sites.

**More information:** Exceptionally high  $\delta^{15}\text{N}$  values in collagen single amino acids confirm Neandertals as high-trophic level carnivores, *Proceedings of the National Academy of Sciences* (2019).

[www.pnas.org/cgi/doi/10.1073/pnas.1814087116](http://www.pnas.org/cgi/doi/10.1073/pnas.1814087116)

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