

# Food for Thought: Was Cooking a Pivotal Step in Human Evolution?

March 09, 2018

The shift to a cooked-food diet was a decisive point in human history. The main topic of debate is when, exactly, this change occurred.

All known human societies eat cooked foods, and biologists generally agree cooking could have had major effects on how the human body evolved. For example, cooked foods tend to be softer than raw ones, so humans can eat them with smaller teeth and weaker jaws. Cooking also increases the energy they can get from the food they eat. Starchy potatoes and other tubers, eaten by people across the world, are barely digestible when raw. Moreover, when humans try to eat more like chimpanzees and other primates, we cannot extract enough calories to live healthily. Up to [50 percent of women](#) who exclusively eat raw foods develop amenorrhea, or lack of menstruation, a sign the body does not have enough energy to support a pregnancy—a big problem from an evolutionary perspective.

Such evidence suggests modern humans are biologically dependent on cooking. But at what point in our evolutionary history was this strange new practice adopted? Some researchers think cooking is a relatively recent innovation—at most 500,000 years old. Cooking requires control of fire, and there is not much archaeological evidence for hearths and purposefully built fires before this time.

The archaeological record becomes increasingly fragile farther back in time, however, so others think fire may have been controlled much earlier. Anthropologist Richard Wrangham has proposed cooking arose [before 1.8 million years ago](#), an invention of our evolutionary ancestors. If the custom emerged this early, it could explain a defining feature of our species: the increase in brain size that occurred around this time.