# Meat eating may have driven evolution of tool use

**The GLP aggregated and excerpted this blog/article to reflect the diversity of news, opinion and analysis.**

Scientists recently turned Harvard's Skeletal Biology Laboratory into a pop-up restaurant. It would have fared very badly on Yelp.

Katherine D. Zink, then a graduate student, acted as chef and waitress. First, she attached electrodes to the jaws of diners to record the activity in the muscles they use to chew food. Then she brought out the victuals.

Other patrons got three courses of meat (goat, in this case). Dr. Zink grilled the meat in the first course, but offered it raw and sliced in the second. In the third course, her volunteers received an uncooked lump of goat flesh.

In some of the trials, the volunteers chewed the food until it was ready to swallow and then spat it out. Dr. Zink painstakingly picked apart those food bits and measured their size.

Dr. Zink was exploring a profound question about our origins: How did our ancestors evolve from small-brained, big-jawed apes into large-brained, small-jawed humans?

The findings? First, raw meat was impossible for the subjects to chew into smaller pieces. "It's like chewing gum," Dr. Zink said.

But slicing raw meat into smaller pieces allowed the volunteers to grind it further into bits small enough to swallow.

Based on their experiments, Dr. Zink and Dr. Lieberman concluded that, long before the invention of cooking, stone tools could have made it easier for hominins to eat raw meat and tubers, conserving precious energy.

**Read full, original post:** Unappetizing Experiment Explores Tools' Role in Humans' Bigger Brains