

## Is cooking the main culprit behind the arterial blockage seen in the Horus mummies study?

During March of this year (2013) a paper appeared in the journal *The Lancet* titled "**Atherosclerosis across 4000 years of human history: the Horus study of four ancient populations**". You may have



seen something about this among the many news articles and blurbs posted across the Web on the heels of this paper's publication. If not, check out Science Daily's excellent lay level piece on it at <http://www.sciencedaily.com/releases/2013/03/130311091537.htm>

You can read the paper in its entirety at <http://download.thelancet.com/flatcontentassets/pdfs/S014067361360598X.pdf> I perused it right after it came out and would like to share my thoughts on a possible culprit behind the arterial

blockage that bedeviled the ancient peoples represented in the Horus study and which has cast a long shadow over modern populations as well (The fabled "Iceman" Ötzi showed evidence of atherosclerosis too albeit he had a [genetic predisposition and evidence of a chronic infection](#), namely borreliosis or Lyme disease).

The Horus study looked at Egyptian, Peruvian, ancestral Puebloan, and Unangan/Aleut mummies. The societies they hailed from varied widely in their lifestyle and diet (with the Aleut peoples eating primarily seafood and berries -- no agriculture), something captured in a chart that can be found at the bottom of page 10. The bottom line as reflected in this statement on page 8: "**Atherosclerosis was present in all four populations: 29 (38%) of 76 Egyptians, 13 (25%) of 51 Peruvians, two (40%) of five Ancestral Puebloans, and three (60%) of five Unangan (p=NS between populations). Although these differences are not statistically significant, the numbers of mummies in the Ancestral Puebloans and Unangan groups are, of course, small. Among mummies identified as women, 17 (39%) of 44 had atherosclerosis, as did 30 (39%) of 77 men.**"

The populations represented were apparently not consuming foods at variance with ones that went back far into prehistory (Foods consonant with what human evolved to thrive on, something reproduced to varying extents today in various versions of the paleolithic or "Stone Age" diet). However, what did stick out to me is that all 4 mummy populations cooked their meat and fish and likely roasted *and cooked many vegetables* (The Aleuts didn't cooked vegetables as they apparently had none *but did cook the fish they consumed*). I would say -- just off the top of my head -- that cooking/roasting foods generated arterial wall & tissue toxic compounds <http://americannutritionassociation.org/newsletter/hidden-toxins-cooked-foods> that in concert with other factors including chronic dental and other infections influenced these peoples to develop atherosclerosis.

Fire only began to be systematically used to prepare food about 250,000 years ago (At least this is when hearths appeared in the archaeological record). This is but a tick on the evolutionary clock and far too

brief a time for any adaptations geared to handle cooked food-spawned toxic compounds to arise and likely enjoy widespread selection for. Look at the percentages of mummies that had significant atherosclerosis -- then mentally reflect on the percentage of contemporary people in the modern West who suffer from atherosclerosis -- factor in the ancient's short average life spans and our longer ones -- and it would seem that at least 30-40% of all people lack the dietary and biophysiological wherewithal (adaptations) to handle the various factors that tend to give rise to atherosclerosis including cooked food-related toxic compounds.

If my bit of off-the-cuff deductive reasoning is on-target, this would suggest that many people would benefit from a basically raw food, antioxidant rich diet. It might also be a healthy remediative approach for those with existing arterial blockage.

© 2013 by Dr. Anthony G. Payne. All rights reserved.