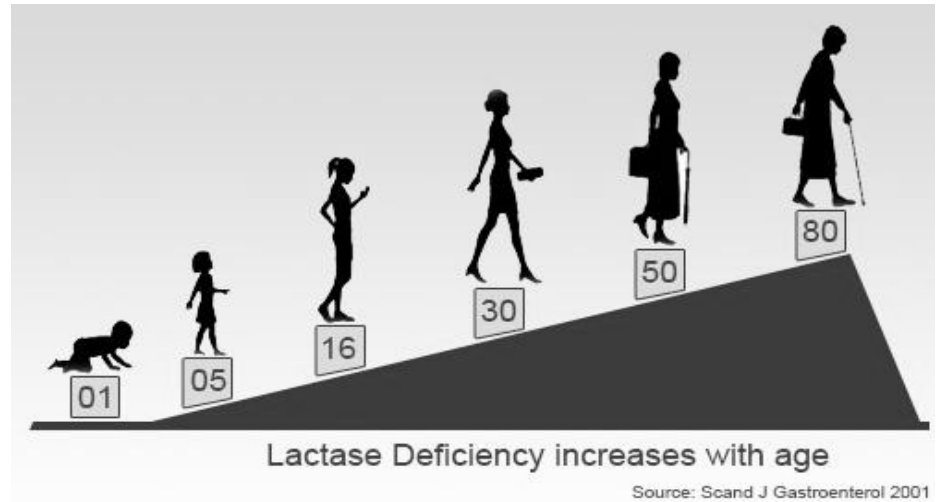
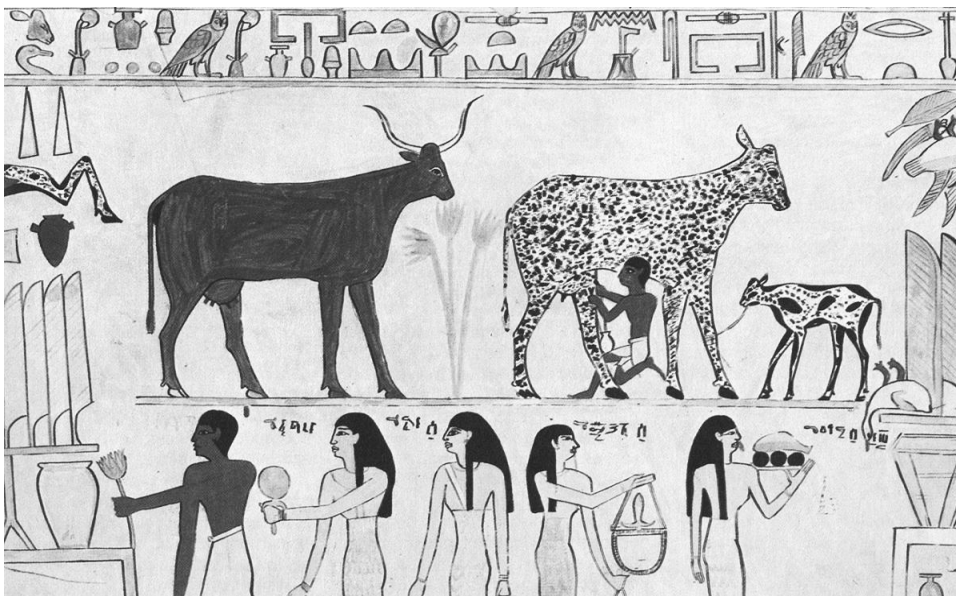


The Evolution of Lactase Persistence

Lactose intolerance is the inability to digest lactose, a sugar found in milk and dairy products. This condition is caused by a deficiency in the enzyme lactase, which is responsible for breaking down lactose. Many adults around the world are lactose intolerant, but the prevalence of lactose intolerance varies greatly among different populations.



Human evolution may have played a role in the development of lactose intolerance. Historically, most adults were lactose intolerant because there was little need for the ability to digest lactose after childhood. However, some populations developed a genetic mutation that allowed them to continue producing lactase into adulthood, enabling them to digest lactose. This mutation likely provided an evolutionary advantage to these populations, as they were able to consume milk and dairy products, which are a good source of calories and nutrients. Populations that developed a high frequency of lactase persistence (ability to digest lactose) are Northern Europe, parts of Africa and parts of Middle East. Populations that have a low frequency of lactase persistence are most of Asia, Africa and America.



It's also worth noting that human consumption of milk and dairy products is relatively recent in evolutionary terms. The domestication of animals and the development of dairying is thought to have occurred around 8,000-10,000 years ago and it's likely that human populations that were able to consume milk and dairy products had an advantage over those that were not.