

Alcohol addiction: Can we blame our ancient ancestors?

[M]illions of years ago, being able to consume alcohol was likely vital to survival: our ancestors evolved to metabolize booze right around the time we grew more likely to encounter it. It is possible that the same reward pathway that might have helped our ancestors forage for food is contributing to our society's public health problem with alcohol today.

A team of researchers led by biologist Matthew Carrigan from the Foundation for Applied Molecular Evolution found in 2015 that, around 10 million years ago, our primate ancestors gained a [mutation](#) in [alcohol dehydrogenase](#) (ADH4), an enzyme that changes alcohol into safe compounds that cells can use as food. This mutation, which was absent in more distant primates, allowed for a metabolism of alcohol that was 40 times more efficient.

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Our craving for alcohol might have resulted from the fact that our early food sources, like fermented fruits, were more likely to contain alcohol. Since food is one of the natural stimuli for the reward pathway, perhaps the association of alcohol and food drove the evolution.

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The complex interaction of genetics and environment (nature vs. nurture) for AUDs [emphasizes the need](#) for studying both genetic and environmental factors, not just one or the other.

The GLP aggregated and excerpted this blog/article to reflect the diversity of news, opinion, and analysis. Read full, original post: [The 'drunken monkey' argument: are we predisposed to alcohol addiction?](#)