

BEER TASTE MAKES US FEEL GOOD.

New Neuroscience research has found that the taste of beer is addictive. When I read this I thought, “Great! Now tell me something I didn’t know.” I suspect my reaction is not unusual, and you may even share my feelings: relaxing after a hard day at work, celebrating success at something, a bit of refreshment after mowing the lawn. The list goes on. And what better to pair with these times than an ice-cold beer? But why we find that first sip of a cold one so rewarding has puzzled scientists for years. We have believed for a long time that the addictive properties of alcoholic drinks come from their alcohol content – that we get hooked on the buzz, not the taste. This new research challenges that old idea, and suggests instead that it is the taste that hooks us, and keeps us coming back for more.

To discover this, scientists asked male study participants to drink a small sip of beer; one that contained so little alcohol that it was not intoxicating. As participants sipped, the researchers scanned their brains using something called positron emission tomography; we just call it PET. PET scans allow scientists or doctors to observe the movements of chemicals within the living brain (and other parts of the body too). But the scientists didn’t watch the beer or the alcohol. They watched the movement of dopamine (dope-uh-mean), a chemical in our brains that increases when we do something rewarding, so that we’ll keep doing it or do it again. Praise a child after its first steps, and their dopamine levels go up, so they will try to walk again. Give the dog a treat after a trick, and its dopamine levels go up, so they will do the trick again. Give a man a beer, and his dopamine levels go up, so he’ll drink some more. This bit we’ve known for years, but we have always assumed that it was the alcohol, the buzz, that increased dopamine. What makes this new study so cool is that it shows that it is not the buzz, but rather the act of tasting the beer that can raise dopamine levels.

The researchers conclude that the first sip raises our dopamine, which acts in our brain to increase our drive to seek the ultimate reward of intoxication, and so we keep drinking. So, might people who are at-risk for alcoholism show an even bigger response? Yes indeed. Participants with alcoholic first-degree relatives (such as siblings or parents) had an even higher dopamine rise after the first sip. This clears up a lot of mystery about how addiction happens, and may provide a way to predict a person’s risk for alcoholism.

REFERENCE: B.G. Oberlin et al., “Beer flavor provokes dopamine release in male drinkers: mediation by family history of alcoholism,” *Neuropsychopharmacology*, doi: 10.1038/npp.2013.91, 2013.