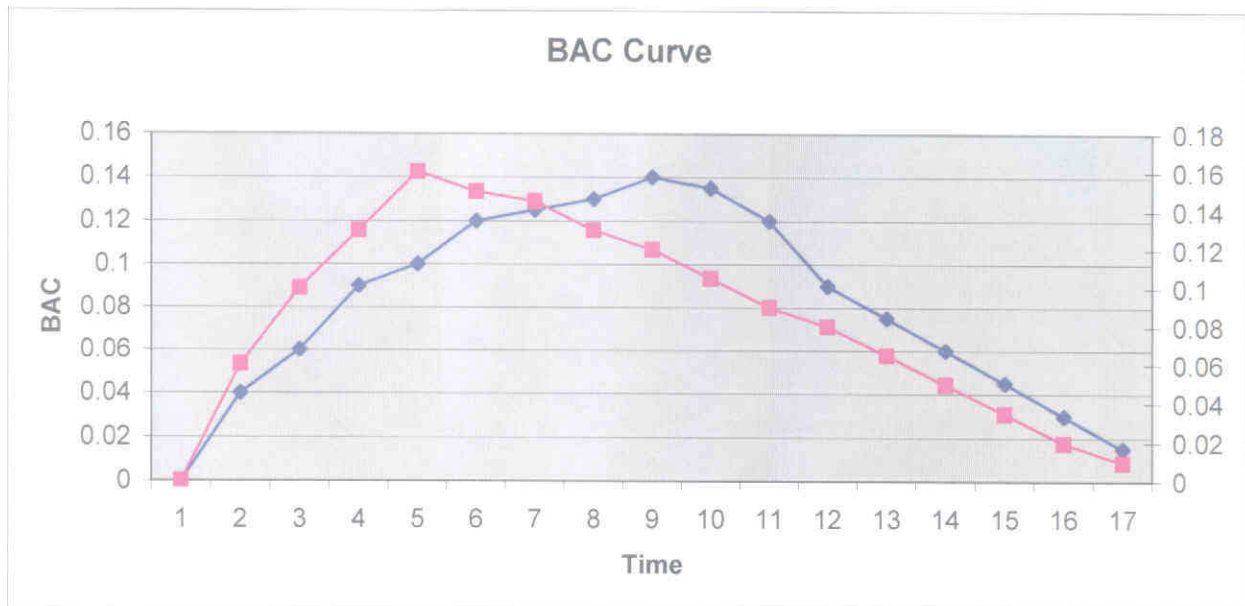


Rising Blood Alcohol Cases

If an evidential blood or breath alcohol test is given after a traffic stop, the result may not reflect the blood alcohol concentration (BAC) at the time of driving. The blood concentration may be lower than at the time of driving (post-absorptive state), the same as the time of driving (plateau), or greater than at the time of driving (absorptive state). Below is a graph of two possible blood alcohol curves, with the x-axis time and the y-axis BAC.



Event Points

1 (7:00 PM)	Start of drinking
4 (8:00 PM)	End of drinking and leaving bar
5 (8:15 PM)	Pulled over for DUI
5 (8:15 PM)	Peak BAC for subject A (pink line)
9 (9:00 PM)	Peak BAC for subject B (blue line)
9 (9:00 PM)	Both subjects are given Evidential BAC tests

Both of these graphs are hypothetical blood-alcohol curves indicating a person drinking about the same amount of alcohol. The pink line (subject A, squares) indicates a faster absorption rate, and the blue line (subject B, diamonds) a slower absorption rate. Both subjects have similar burn-off rates. Most drinkers achieve their peak BAC within an hour of the end of drinking, and many within the first half-hour.

Lets assume two people (similar size and weight) drink about the same amount of alcohol, and both finish at 8:00 PM and leave the bar. Lets also assume one person has a quickly rising BAC curve above (pink line) and the other a slower rising BAC curve (blue line). One may reach his peak BAC at 8:15 PM, while the other may not reach peak BAC until 9:00 PM.

Lets assume both people are stopped for DUI at 8:15 PM, and are given blood tests at 9:00 PM. The pink subject would have been at his peak at the time of driving and the test at 9:00 PM would probably *underestimate* his BAC at the time of driving. The blue subject would be at his peak at the time of the test, and the test would *overestimate* his BAC at the time of driving.

Absorption rates vary greatly and are not readily predictable. In social drinking situations, most people reach their peak within an hour of the end of drinking. Some will reach their peak while still drinking, and many typically within the first 20 to 40 minutes after drinking. It's all about timing and absorption rate.