# The HOLIDAY (HOw ALcohol InDuces Atrial TachYarrhythmias) Monitors Study: Acute Alcohol Consumption And Discrete Atrial Fibrillation Events

**Purpose**: Alcohol is the most commonly consumed drug in the world, and atrial fibrillation (AF) is the most common arrhythmia. While previous research has demonstrated associations between chronic alcohol consumption and the risk of developing AF, patients often report that acute alcohol consumption may trigger a discrete AF event. Prior research on alcohol consumption has relied on participant self-report, and real-time relationships between alcohol and discrete episodes of atrial fibrillation have not been described.

**Trial Design:** (N=100) consenting paroxysmal AF patients at least 21 years of age wore a continuous ECG monitoring. Participants were instructed to press a patient activator button on the ECG monitor only and every time they had a standard alcoholic drink.

**Primary Endpoint:** Real-time documentation of each alcoholic drink consumed was self-recorded using a button on the ECG-recording device. Fingerstick blood tests for phosphatidylethanol (PEth) were used to validate ascertainments of drinking events

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| Real time self-reported drinking events | Odds of an AF episode within 4 hours after drinking | 95% Confidence Interval | P-value |
|---|---|---|---|
| Any | 2.26 | 1.50-3.40 | <0.001 |
| 1 | 2.02 | 1.28-3.17 | 0.002 |
| ≥ 2 | 3.58 | 1.63-7.89 | 0.002 |

Conclusion: Among those with a history of AF, alcohol abstinence can minimize AF events. Data from this study suggest the likelihood for an AF event is not simply due random chance, and alcohol consumption is a modifiable exposure that can influence the risk of an AF event.

Results reflect the data available at the time of presentation.

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