

For binge drinkers, even relatively minor burns can lead to serious complications

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A Loyola University Medical Center study has found that binge drinking may slow recovery and increase medical costs for survivors of burn injuries. The study was presented during the 44th Annual Meeting of the American Burn Association in Seattle.

Loyola researchers compared burn patients who were intoxicated above the legal limit with burn patients who had no [alcohol](#) in their blood. Although the binge drinkers' injuries were much less severe than those of other patients admitted to Loyola's Burn Unit, the binge drinkers experienced similar rates of [sepsis](#) and [pneumonia](#) and spent similar amounts of time on the [ventilator](#), in the ICU and in the hospital.

The hospital bill for burn-injured binge drinkers was a median of \$221,000, which was nearly as high as the bill for non-drinkers with much more serious burns.

"Among binge drinkers, even relatively minor injuries can result in serious complications and prolonged hospital stays," said senior author Elizabeth J. Kovacs, PhD, director of research of the Burn & Shock Trauma Institute of Loyola University Chicago Stritch School of Medicine and director of Loyola's Alcohol Research Program.

Kovacs and colleagues followed 53 patients who came to Loyola with inhalation injuries. Twelve patients had blood alcohol contents greater than 0.08 percent, the legal limit for driving. Four patients had lower blood alcohol counts and 37 patients had no alcohol in their blood. The

finding that 30 percent of burn patients had been drinking is similar to findings of earlier studies.

On average, non drinkers were burned over 24.9 percent of their bodies, compared with only 10.6 percent in binge drinkers.

"We suspect the reason binge drinkers have smaller burns is because those with more severe injuries were unable to escape, due to their intoxication," said Christopher S. Davis, MD, MPH, first author of the study.

Davis said there are three likely reasons why binge drinkers experienced such difficult recoveries, despite their relatively minor injuries:

- Intoxication weakens the immune system at a critical time, slowing the healing process and making patients more prone to infections.
- While hospitalized, chronic alcohol abusers go through withdrawal. Consequently, they may become agitated and uncooperative -- by, for example, removing a breathing tube or not participating in rehabilitation.
- Carbon monoxide poisoning levels in binge drinkers were more than four times higher than levels in non drinkers, probably because it took binge drinkers longer to escape. Carbon monoxide poisoning can cause brain damage and other effects that complicate recovery.

Researchers wrote that their findings "affirm the impact of alcohol intoxication at the time of [burn](#) and smoke inhalation injury, placing renewed emphasis on injury prevention and alcohol abuse education."

Provided by Loyola University Health System

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