

MDMA-Related Deaths: Stop Calling Them Overdoses

DanceSafe Responds to LA Weekly Misinformation

By Emanuel Sferios and Missi Wooldridge

DanceSafe was founded in 1998 in order to help young people in the electronic music community stay safe. In particular, our aim was to help reduce the potential risks and harms associated with the use of ecstasy (MDMA), a therapeutic medicine and recreational drug whose prohibition in 1985 quickly spawned the most adulterated, illicit drug market in the world. Not only were there dozens of other drugs being sold under the name “ecstasy,” but many of them were far more dangerous than MDMA. (The situation remains the same today, despite ecstasy’s re-branding as “molly.”) Following the example of the Dutch government, we began [testing ecstasy tablets](#) at raves in the San Francisco Bay Area in order to help people who used the drug avoid ingesting the fake and adulterated pills. In addition, we launched a [laboratory analysis program](#) where anyone could anonymously send in pills or substances for gas chromatography testing and retrieve the results from the DanceSafe website. The results were made publicly available to inform the community, health professionals, media, and public policy makers, and to ensure the best measures were implemented to protect and promote public health and safety.

While drug checking remains a crucial, life-saving service offered by DanceSafe and [similar harm reduction organizations around the world](#), MDMA itself, like any drug, is not completely safe. Thus, a fundamental part of DanceSafe’s mission has always been to educate the community on all potential risks, dangers, and preventative factors associated with drugs and the environments in which they are used. We take a nonjudgmental approach to educate and empower all people who choose (or choose not) to use drugs. Part of this educational process has involved correcting the barrage of misinformation regularly put out by mainstream media outlets bent on sensationalizing the issue of recreational drug use. One of the most prolific—and most dangerous—pieces of media misinformation is the claim that MDMA-related deaths are the result of overdoses. This is not true, and this dangerous myth will be explained in a moment. First, however, it is important to understand what the word “overdose” actually means.

Overdosing means taking a higher than appropriate dose of a medicine or a drug. In other words, it simply means *taking too much* or taking a “dose” that is “over” the proper therapeutic or recreational amount. The association of the word “overdose” with “drug-related death” is primarily reflective of heroin and opiate-related deaths, where the majority of fatalities may, in fact, result of overdosing. However, MDMA-related deaths are rarely the result of an overdose, and calling them overdoses is dangerous and negligent. It sends the message that “you will be okay as long as you don’t take too much,” which is simply not true. *In the vast majority of cases of MDMA-related deaths, where no other drugs were found in the person’s bloodstream, the deceased had taken a dose within the normal range for appropriate therapeutic or recreational use.*

Perhaps even more importantly, calling these deaths overdoses obscures the actual causes, which prevents medical personnel, public health professionals, and health educators from understanding and implementing effective education and harm reduction strategies. This is all the more tragic

because these deaths are easily preventable. To understand why, let's review the actual causes of MDMA-related medical emergencies and deaths, in light of a few recent media articles.

Heatstroke

By far the most common cause of MDMA-related medical emergencies and death is heatstroke, where MDMA was only one of a number of factors involved. A normal dose of MDMA raises body temperature about one degree and also inhibits the body's natural thermoregulation. This increases the risk of heatstroke, especially when other factors are involved, like aerobic dancing in a hot environment and not drinking enough water. On June 25th, at least 36 people were hospitalized while attending the Avicii concert at Boston's TD Garden, and although law enforcement reported that "the pit area was extremely hot and crowded," the media choose simply to blame the emergencies on drug use. TMZ, for example, ran a story with the headline, [Ecstasy Triggered Mass Hospitalization at Avicii Concert](#), which included the inaccurate claim that dehydration is a "side effect of MDMA." (It's not. Dehydration is a result of not consuming enough water.) Simply blaming drug use (or people who use drugs) does nothing to further our understanding of these events, nor does it help us prevent future tragedies. While many of those hospitalized at TD Garden had taken ecstasy or molly, heatstroke hospitalizations stemming from raves, nightclubs, and music festivals are common even when the person did not consume any drugs. This underscores the importance of establishing safe settings protocols for EDM events. Reducing ambient temperatures, offering chill rooms, and providing free and easily-accessible water and electrolytes are all actions that can reduce the risk of heatstroke emergencies, regardless of whether or not people are using drugs.

Contraindicated Health Conditions

Using MDMA results in a modest increase in heart rate and blood pressure, similar to light exercise. While this is not dangerous for a healthy person, it can be quite dangerous for someone with high blood pressure or heart disease. On June 21st, 24-year old Montgomery Tsang of San Leandro, California collapsed and died after attending Electric Daisy Carnival in Las Vegas. Tsang had a heart condition. Yet despite the coroner citing "cardiac enlargement" as a "significant condition" contributing to his death, the [LA Weekly chose to call the death an "ecstasy overdose."](#) Did Tsang take too much MDMA? Maybe. We don't know. But MDMA can cause death at normal or even low doses for a person who has an enlarged heart, a fact the LA Weekly neglected to mention. At least the reporter, [Dennis Romero](#), included Tsang's heart condition in the article. However, he then chose to end his article with a pot shot at DanceSafe, claiming that we are "bent on testing pills" and that we have "repeatedly blamed adulterated drugs for ravers' overdose deaths." We wonder if Romero has spoken with the parents we have spoken with over the years, whose children died after consuming fake ecstasy tablets containing PMA and other adulterants? We wonder if he realizes we also work closely with parents whose children have died after consuming pure MDMA? Probably not, and for this he can be forgiven. Harder to forgive, however, is Romero's use of the term overdose to refer to MDMA-related deaths, for this is dangerous misinformation, and as someone who has been reporting on recreational drugs for [almost two decades](#), he really ought to know better.

Health conditions that increase the risk of hyperthermia or heatstroke are also contraindicated with MDMA. These conditions include anhidrosis (the inability to sweat), Malignant Hyperthermia (a rare genetic condition that can be triggered by elevated body temperatures), and others.

Hyponatremia and Other Causes

No article on MDMA-related deaths would be complete without a mention of hyponatremia, or water-toxicity. Ironically, although dehydration and heatstroke in dance environments is the most

common cause of MDMA-related medical emergencies, MDMA actually causes water retention. This fact has been revealed by numerous scientific studies where MDMA was given to healthy subjects in clinical settings. There have actually been a number of cases where a person has died after consuming *too much water* while on MDMA. (This is a greater risk for females, as estrogen plays a significant role in the transfer of water across cell membranes, exacerbating the effects of hyponatremia.) These deaths led to a fairly quick change in the standard harm reduction message back in 1999. Whereas before we used to tell people, “remember to drink water,” now we tell people, “remember to drink water, but don’t drink too much water, and Gatorade or sports drinks with electrolytes are better.”

Dose Does Matter!

There are other causes of MDMA-related deaths, such as contraindicated medications and drug combinations. And of course in all these cases, dose matters! The higher the dose of MDMA, the more likely someone can experience adverse medical reactions. And there are cases of what appear to be straight-up overdoses. Take [this case](#), for example. The article states that the decedent took 2.3 grams of MDMA all at once. That’s almost twenty times a normal dose! That dose would likely have killed many people. But the point is strict overdoses like this are rare. Most MDMA-related fatalities happen when an individual takes a normal, recreational dose. Other factors described above are therefore more important.