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Epub 2019 Oct 21.

Risk of death associated with kratom use compared to opioids

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PMID: 31647958 DOI: [10.1016/j.ypped.2019.105851](#)

Abstract

Kratom use appears to be increasing across the United States, increasing attention to deaths in which kratom use was detected. Most such deaths have been ascribed to fentanyl, heroin, benzodiazepines, prescription opioids, cocaine and other causes (e.g., homicide, suicide and various preexisting diseases). Because kratom has certain opioid-like effects (e.g., pain relief), and is used by some people as a substitute for opioids for pain or addiction, kratom has been compared to "narcotic-like opioids" (e.g., morphine) with respect to risk of death despite evidence that its primary alkaloid, mitragynine, carries little of the signature respiratory depressing effects of morphine-like opioids. This commentary summarizes animal toxicology data, surveys and mortality data associated with opioids and kratom to provide a basis for estimating relative mortality risk. Population-level mortality estimates attributed to opioids as compared to kratom, and the per user mortality risks of opioids as compared to kratom are provided. By any of our assessments, it appears that the risk of overdose death is >1000 times greater for opioids than for kratom. The limitations of the mortality risk estimate warrants caution in individuals with unknown factors such as use of other substances and medications, or other preexisting conditions. More research on kratom safety and risks is needed, as is regulation of commercial kratom products to ensure that consumers are informed by FDA labeling and that kratom products are not contaminated or adulterated with other substances.

Keywords: Kratom; Mitragynine; Mortality risk; Opioid epidemic; Opioids.

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