



# Poison HOTLINE

1-800-222-1222

May 2022



Dr. Edward Bottei

It is with great sadness that we inform you of the unexpected death of our long-time Medical Director, Dr. Ed Bottei, on April 27, 2022. His significant contributions to medical toxicology, the State of Iowa, and the IPCC demonstrates the passion that he had for the field and his work. He published numerous research studies and served on several statewide and national committees and advisory boards.

Beyond his many achievements and accomplishments, Dr. Bottei was greatly loved and respected by his colleagues throughout the poison center community, his hundreds of students, and his IPCC family. His loss is deeply felt by all who had the honor to know him.

Dr. Bryan Wilson, University of Iowa Hospitals & Clinics ER physician and medical toxicologist, has been named IPCC's Interim Medical Director. Dr. Wilson and our team of medical toxicologists will ensure 24/7 toxicology consultation services for the IPCC by calling **1-800-222-1222**.

## Bupropion

Bupropion is an atypical antidepressant (Wellbutrin®) and smoking cessation aid (Zyban®) also used for weight loss and seasonal affective disorder. When taken in overdose, bupropion can cause tachycardia, hypertension, QT prolongation, and ventricular arrhythmias. While less common, QRS widening can also be seen. Of particular note is the risk of seizures presenting after even mild overdoses and up to 24 hours after ingestion.

It has been noted that seizure activity may be frequently preceded by tachycardia, agitation, tremor and/or hallucinations with a bupropion ingestion. These four signs are the result of bupropion's sympathomimetic effects. The more severe the ingestion, the greater the likelihood that the patient will display multiple signs listed above, and that the seizures will be more severe. Serious ingestions may result in hyperthermia, status epilepticus, EKG changes, ventricular arrhythmias, and serotonin syndrome.

Of all the above symptoms, tachycardia appears to have the strongest association with bupropion-induced seizures and occurs in over 90% of bupropion overdoses that have seizures. It's important to note, however, that some patients who do not have tachycardia will still have seizures.

Most symptoms (seizures, tachycardia, agitation, hallucinations) can be managed with benzodiazepines, but large doses may be required to do so. However, the development of these symptoms has potential to be delayed – especially with sustained release (SR) or extended release (XL) formulations. Due to the delayed onset of seizures after ingestions of SR or XL forms of bupropion (reported 18-24 hours post-ingestion), patients ingesting SR or XL products need to be monitored for no less than 24 hours.

It is worth noting that recreational use of bupropion is a growing public health problem. Colloquially referred to as “poor man’s cocaine”, the pills are often crushed and snorted to bypass the slow-release mechanism built into some types of tablets (e.g., Wellbutrin XL). Other practices include simply taking more pills than prescribed or even dissolving pills in water and injecting the solution.

For 24/7 expert management advice and recommendations, please call the Iowa Poison Control Center at **1-800-222-1222**.

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Certified Specialist in Poison Information*

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