



# Poison HOTLINE

1-800-222-1222

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*Did you know .....*

Areca nut is said to be the fourth most commonly used psychoactive substance in the world, behind caffeine, nicotine and alcohol. The seed may erroneously be referred to as Betel nut (pronounced: beetle) as the nut is often wrapped with betel leaves.

Areca is a palm plant grown in the tropical Pacific, Asia and parts of east Africa. The nut is chewed for its nicotine-like effect. It is also used as a digestive aid, a remedy against bad breath and a cough/sore throat remedy. In some populations, lime, clove and other spices are added to increase the flavor.

Significant acute toxicity (cholinergic toxidrome) is rare, but chronic exposure has numerous adverse effects.

## Metformin

**A Biguanide Antidiabetic Agent**

Metformin is used as an oral hypoglycemic agent for type II diabetes mellitus. It is available as a single drug or in combination with other anti-diabetic medications. Metformin decreases hepatic glucose production and intestinal absorption of glucose while increasing peripheral glucose uptake and utilization. Metformin does not stimulate insulin release so is unlikely to cause hypoglycemia after acute overdose, although metformin may contribute to the hypoglycemic effects of sulfonylureas, meglitinides or insulin.

Side effects of therapeutic use of metformin include diarrhea, nausea, vomiting, abdominal pain, headache and lack of energy. More serious effects include lactic acidosis and megaloblastic anemia. Severe lactic acidosis is rare but potentially fatal with a mortality rate reportedly as high as 50%. Lactic acidosis occurs in therapeutic dosing mainly in patients with renal insufficiency, alcoholism, hepatic disease, and patients of advanced age. It has also occurred after the injection of iodinated contrast agents resulting in acute renal failure.

Overdose of metformin can cause severe, life-threatening lactic acidosis. Lactic acidosis from metformin may begin with nonspecific symptoms, such as malaise, vomiting, myalgias and respiratory distress. Hypothermia and hypotension have been reported with metformin-induced lactic acidosis. Lactic acidosis caused by metformin is treated with good supportive care; sodium bicarbonate is recommended for a pH < 7.1. Metformin is not removed by hemodialysis in patients with normal renal function, but dialysis can help correct the severe acid-base and electrolyte abnormalities resulting from a severe metformin overdose. Continuous venovenous hemodiafiltration has also been recommended.

For specific treatment recommendations call the IPCC at **1-800-222-1222**.

*Anna Asmussen RN, SPI  
Specialist in Poison Information*

**POISON  
Help**  
1-800-222-1222

The logo for Poison Help, featuring the word "POISON" in a bold, sans-serif font above the word "Help" in a larger, bold, sans-serif font. To the right of the word "Help" is a red pill bottle with a white cap and a white skull and crossbones symbol on its side. Below the logo is the phone number "1-800-222-1222".

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