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THE MARYLAND POISON CENTER'S MONTHLY UPDATE.  
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## The “Cinnamon Challenge”

The “Cinnamon Challenge” starts with a dare to swallow a spoonful of powdered or ground cinnamon without drinking water. This challenge is almost impossible and can be harmful to the adolescents who are among the most common age group attempting this challenge. In 2012, the American Association of Poison Control Centers reported that U.S. poison centers received a surge in calls related to the Cinnamon Challenge which coincided with an increase in Cinnamon Challenge videos on YouTube. The number of Cinnamon Challenge calls to poison centers involving teens jumped from 51 in 2011 to 222 in 2012, with 15-20% requiring medical attention.

Cinnamon, a caustic powder composed of cellulose fibers, dries out the mouth and throat and triggers a severe gag reflex. Common symptoms immediately after performing the Cinnamon Challenge include vomiting, coughing, choking, throat irritation, nosebleed and chest tightness. In the most serious cases, adolescents have required ventilator support for collapsed lungs. The Cinnamon Challenge poses a greater risk for teenagers with allergy to cinnamon or bronchopulmonary diseases such as asthma.

There are no studies of cinnamon inhalation in humans, but studies in rats have shown that intratracheal cinnamon and cellulose triggers hypersensitive airways, irritates mucous membranes and can lead to granulomatous inflammation, interstitial fibrosis, fibrotic lesions, damaged lung elasticity and alveolobronchiolitis (Ann Occup Hyg. 1997;41:184-188; Indian J Med Res. 1995;102:287-292). Pulmonary inflammation occurs in humans with cinnamon inhalation which might predispose airways to epithelial lesions and scarring. Acute responses to cinnamon inhalation probably do not increase the risk of long term damage, but attempts to swallow a large amount of cinnamon has a risk of aspiration and, potentially, aspiration pneumonia.

Although the health risks associated with the Cinnamon Challenge are fairly low, they are unnecessary and avoidable. According to an American Academy of Pediatrics perspective (Pediatrics 2013;131:833-835), the Cinnamon Challenge is a behavioral phenomenon often fueled by peer pressure and competition. Given the popularity of the challenge on social media, discussions with adolescents about its possible harmful effects are prudent.

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### Did you know?

**Kcentra is a new FDA approved product that reverses acute bleeding due to vitamin K antagonist (e.g. warfarin) anticoagulation.**

Kcentra is Prothrombin Complex Concentrate (Human), a plasma-derived, four-factor concentrate containing coagulation factors II, VII, IX, and X. It can be administered more quickly than frozen plasma and in a lower volume. Although not FDA approved for bleeding associated with rivaroxaban, dabigatran and apixaban, there is speculation that KCentra may also be effective for reversing these new oral anticoagulants.

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