

CINNAMON IS one of those flavors and smells that can't be substituted, especially around the holidays. I have cooked with coriander and cardamom and they can be quite good—but they are not cinnamon. I find it very interesting though (because I am such a foodie), that what Americans typically purchase and use as cinnamon is in reality, by some estimates, a poor replica of the real thing.

In ages past, ships would travel half way across the world to the shores of Ceylon, also known as Sri Lanka, to trade for the highly prized spice. In fact, one of the main reasons the Portuguese ended up exploring the world was in pursuit of an alternative route to obtain cinnamon. Sri Lanka was the only place “true cinnamon” could be found. Today,

Sri Lanka is still the main exporter, producing about 80

percent of the world's cinnamon supply.

Ceylon (or true) cinnamon is obtained from the inner bark of the tree species, *Cinnamomum verum*, which is harvested and dried. The kind of cinnamon typically sold in America is from other species found in China, Vietnam, and Indonesia.

While related, “true cinnamon” and these other varieties do not come from the same plant. They are distinct in flavor as well as chemical composition. Cassia cinnamon is common in American grocery stores and is described as reddish, strong, and peppery. “True cinnamon” is lighter in color and taste. It is said to have a sweet, delicate flavor. The cinnamon found in baked goods, pies, and drinks here in America is typically cassia which is cheaper. The difference in price however, might be out-merited by a difference in quality.

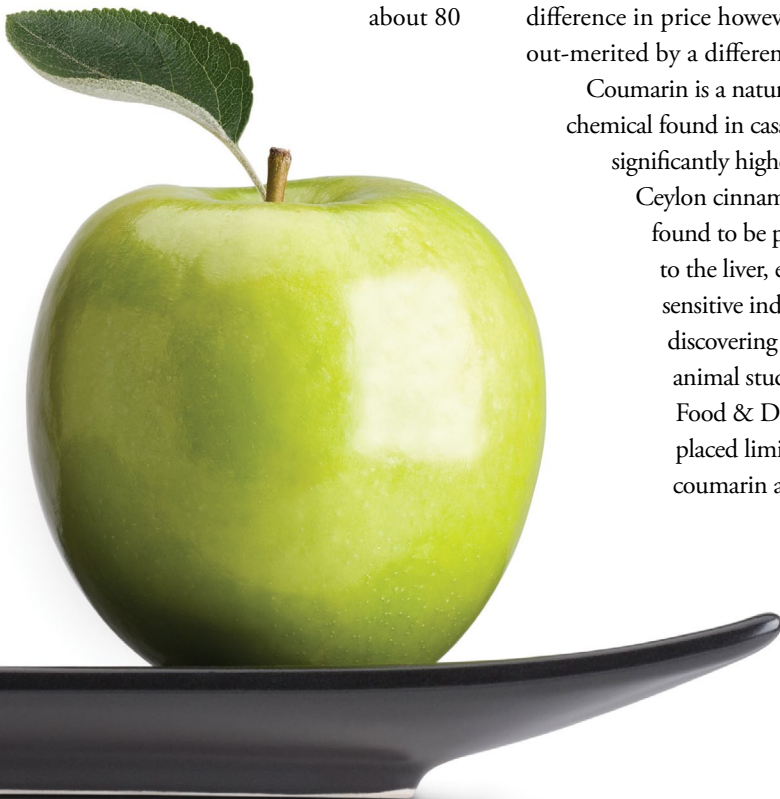
Coumarin is a naturally occurring chemical found in cassia cinnamon in significantly higher amounts than Ceylon cinnamon. It has been found to be potentially toxic to the liver, especially in sensitive individuals. After discovering its effect from animal studies, the U.S. Food & Drug Association placed limitations on coumarin as it had been

used as a flavoring agent. Other countries that had used coumarin medicinally have established tolerable daily limits. “Studies carried out in Germany prior to 2008 revealed that the coumarin content in some of the cinnamon-flavored products and cinnamon capsules which contained

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cassia cinnamon as a substitute for true cinnamon exceeded the limits set by the Council of the European Communities in 1988. In some cases children who consume cinnamon-flavored food and people who take cinnamon capsules could exceed the TDI (tolerable daily intake) established by the EFSA (European Food Safety Authority). An Italian study also found that about 70% of the cinnamon-flavored foods analyzed had higher levels of coumarin than that set by the Council of the European Communities.”¹

It is the regular consumption of cassia cinnamon that has been found to be potentially problematic. “For example, one study estimated that small children eating oatmeal sprinkled with cinnamon a few times a week would exceed the established safe upper limit of exposure. Similarly, they concluded that adults who are heavy consumers of culinary cinnamon or take powdered cinnamon supplements could also reach potentially unsafe doses.”²



According to a 2010 German study, on average, cassia cinnamon powder has up to 63 times more coumarin compared to “true” (Ceylon) cinnamon powder.

Cinnamon has been used for thousands of years for flavor and as medicine. In India it has been a remedy for respiratory, digestive, and

effective as a supplement in patients with hyperlipidemia and cardiovascular diseases without diabetes.”⁴

The antimicrobial properties of cinnamon are being tested in food preservation. Cinnamon oil has been found to have some efficacy against hospital acquired bacterial and yeast isolates, *E. coli*, and staphylococcus

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gynecological ailments. “Recent studies emerging from western countries have shown many potentially beneficial health effects of cinnamon such as anti-inflammatory properties, anti-microbial activity, blood glucose control, reducing cardiovascular disease, boosting cognitive function, and reducing the risk of colonic cancer.”³

Most of the research done to discover the potential therapeutic values of cinnamon have been done with cassia cinnamon. Some are warning however about the potential danger of using it as a remedy. A study involving rats used Ceylon “true cinnamon.” The results of the study showed that it improved their ability to handle a glucose load. Researchers thought this occurred by enhancing insulin signaling. Diabetes induced animals supplemented with cinnamon ate less, “implying that cinnamon also tends to promote satiety. . . . In addition, both in healthy and diabetes-induced animals, cinnamon caused a very significant reduction in the total and LDL cholesterol levels. This cholesterol lowering effect of cinnamon, together with its antioxidant properties, has the potential to reduce the long-term cardiovascular complications associated with diabetes, while also being

aureus. One Chinese study found that cinnamon oil “had strong anti-fungus effects against *Candida albicans*, *Candida tropicalis*, and *Candida krusei*. They impacted the morphology and sub-micro structures of the fungus within 48-72 hours, and eventually denatured and killed the cells. The complexes have also shown considerable curative effects to intestinal *Candida* infections.”⁵

The ports of Sri Lanka still smell of cinnamon with most of the ships headed to Mexico and South America. Mexico is the number one importer of “true cinnamon.” Several authentic Mexican dishes use cinnamon. Cinnamon quills are boiled in Mexican hot chocolate as well as in savory dishes such as almond mole and Mexican sweet potatoes. “True cinnamon” is also commonly used in South American countries such as Peru and Colombia. A traditional drink, Horchata, is rice milk flavored with cinnamon. Ceylon “true cinnamon” can be purchased at many Mexican and specialty grocery stores, or online.

Merchant ships carrying cinnamon are also pictured in the prophetic book of Revelation. Here it is among the merchandise “the great men of the earth” have traded in, symbolic of one of their precious sources of revenue.

These merchants are wailing because their merchandise is now worthless. The economy is destroyed. What was thought to be secure is brought to nothing. What was believed to be true is exposed as counterfeit. But while they are weeping, there is a place that is filled with rejoicing. Heaven has been witness to all of the deception and oppression which now will be no more. God’s economy will replace the world’s. The true will supplant the false.

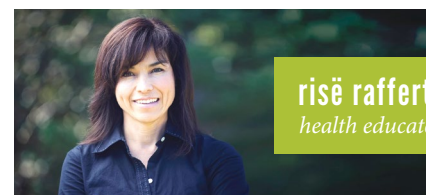
¹ Ikhlal A. Khan, Yan-Hong Wang, . . . “Cassia cinnamon as a Source of Coumarin in Cinnamon Flavored Food and Food Supplements in the United States,” *Journal of Agricultural and Food Chemistry*, 4/11/13, http://cinnamonvogue.com/DOWNLOADS/Cinnamon_and_coumarin.pdf, p. B.

² “Online Library | Articles | Choosing the Right Cinnamon | DrFuhrman.com,” *Online Library | Articles | Choosing the Right Cinnamon | DrFuhrman.com*. N.p., n.d. Web. 17 Oct. 2013, http://www.drfulhrman.com/library/choosing_the_right_cinnamon.aspx>.l.

³ Priyanga Ranasinghe, “Effects of *Cinnamomum zeylanicum* (Ceylon cinnamon) on blood glucose and lipids in a diabetic and healthy rat model,” *Pharmacognosy Research*, April-June, 2012, <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3326760/>.

⁴ Ibid.

⁵ GS Wang, “Mechanisms, clinically curative effects, and antifungal activities of cinnamon oil and pogostemon oil complex against three species of *Candida*,” *PubMed.gov*, March, 2012, <http://www.ncbi.nlm.nih.gov/pubmed/22594097>.



Risë has been writing on various health subjects for over 20 years. She has inspired many through her research and down-to-earth writing and speaking style. She believes that healthy living is intimately tied to happiness and wholeness.