

# HOW COME?: Cashews shells have toxic dose

April 8, 2011

Walnuts, pecans, almonds, Brazil nuts, hazelnuts (filberts). You can find these nuts in their crackable shells in the produce section of most supermarkets. And then there are the poor cashews, sitting in plastic bags with no coats on.

But cashews weren't born shell-free. Take walnuts. Walnuts hang on their trees encased in round green coverings (black walnuts look like small green tennis balls). Inside this outer covering hides the walnut in its shell. And inside the shell is the tasty walnut "meat." But cashews come in an even stranger disguise. A cashew wearing its shell looks like a fat worm, wriggling out of an upside-down apple.

Cashew trees are evergreens that grow only in a tropical or subtropical climate ([India](#), [Brazil](#), [Vietnam](#) and [Tanzania](#) are among the countries known for their cashews). The trees, which can grow to more than 40 feet tall, bear "cashew apples." Yellow or red cashew apples also resemble pears or bell peppers. And the "apples" are actually false or pseudo fruits. It's the nuts protruding from the apple that are the tree's real fruit. And hidden inside each nut is a single seed -- the cashew we buy at the store.

You might be tempted to simply break off the nut and remove its shell. But the cashew's family -- the Anacardiaceae clan -- has some not-so-nice relatives. Besides pistachio nuts and tropical mangoes, the cashew's kin includes the not-so-tasty poison sumac and poison ivy.

Poison sumac and poison ivy contain urushiols, irritating, oily chemicals that make a brush with those "leaves of three" (poison ivy) such a painfully itchy experience. And the cashew has its own skin irritant, a relative of urushiol called anacardic acid. And -- you guessed it -- this chemical is concentrated in the oily liquid lurking inside the double-layered cashew shell. So it's no wonder that one old name for the cashew was "blister nut."



It's also not surprising that cashews must be processed very carefully. Processing the nuts includes roasting, boiling, soaking, cracking and peeling. Roasting the cashew nuts destroys the anacardic acid. But the smoke from the roasting is as serious a lung irritant as the

smoke from burning poison ivy (which should never be done). Since much of the work is still done by hand, cashew workers sometimes suffer from rashes and eye irritation.

Finally, part of the process includes extracting the nutshell liquid, which is sold for industrial uses such as waterproof paints and varnishes.

After the cashew seeds are thoroughly cleaned and roasted, they can be bagged up and shipped for tasty snacking and cooking.

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