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cooking rice to reduce arsenic content

By Dr. Stephanie Bayliss, ND • October 4th, 2017

Arsenic is naturally occurring in soil and is classified as a category one carcinogen by the World Health Organization. You may be surprised to know that if you are frequently consuming rice, you may be getting exposed to larger than

anticipated amounts of arsenic. Based on a recent study, it is evident that the arsenic in rice is a real concern, primarily for infants and young children. It has been found to exhibit a dose-dependent response, meaning the more you consume, the greater your risk of having adverse effects. (Signes-Pastor, 2017)

Research on Arsenic

Recent studies from Taiwan, Bangladesh and Chile have found that moderate-to-high levels of arsenic exposure are associated with cardiovascular disease related mortality. (Farzan, 2013)

Arsenic can pass through the placenta from mother to fetus and exposure during utero has been associated with increased risks of spontaneous abortions and stillbirths, an increase in infant mortality rates, preterm birth, low birth weight and fetal growth restriction. (Farzan, 2013)

Higher levels of uterine exposure to arsenic have been found to cause an increase in blood pressure at 4.5 years of age. 1 mg/L increase in maternal urinary arsenic levels were associated with a 3.7 mmHg increase in systolic and 2.9 mmHG increase in diastolic blood pressure. Long-term, this modest increase in blood pressure could be damaging if the elevation is sustained. (Hawkesworth, 2013)

In Bangladesh, the groundwater has been contaminated with arsenic, which has subsequently lead to an increase in the amount of cancer, heart disease and developmental anomalies.

(Rahman 2002; Smith, 2000)

Rice is particularly problematic compared to other grains, since it is grown on flooded land, essentially allowing more arsenic to be absorbed from the soil into the rice.

Removing Arsenic from Rice

A research study compared multiple methods to cooking rice, and discovered the most amount of arsenic was removed with the following method:

1. Soaking the rice overnight.
2. Prior to cooking, rinse with a fine wire mesh strainer until the water runs clear.
3. Measure out the amount of rice you are cooking, and add 5 additional parts of water.
4. Bring the pot of rice to a boil, and then leave it uncovered, simmering.
5. Check the rice after 25 minutes to see if it has cooked, and then strain off the non-evaporated water.

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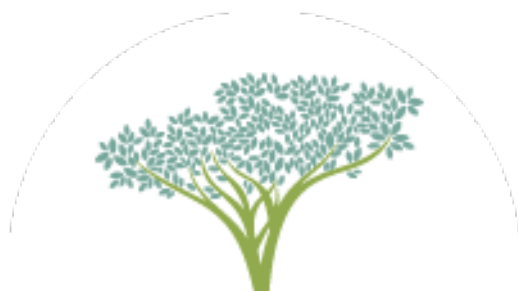
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