

Our comments on arsenic in rice and rice products

With the recent stories surrounding arsenic in several different foods, you may have questions on this subject. Here are the facts and our call for FDA to help the public and our industry understand this issue better.

What we know about arsenic

Arsenic is a naturally occurring trace element found throughout the world. People are exposed to arsenic every day. It is found in the earth's crust, in our water, the dust we breathe and in many foods we consume.

Many plants, including rice, take up this element as part of the growing process. In the case of California rice, naturally occurring arsenic is found in the streams and rivers that irrigate our crop. It is also naturally occurring in the soil.

There are two forms of arsenic - inorganic and organic. Most scientists agree that inorganic arsenic is of greatest concern to public health. Organic arsenic is largely considered to be benign, since there is no evidence linking organic arsenic in food to health impacts, including cancer. Many literature reports only cite total arsenic levels in food, which is a combination of both inorganic and organic forms.

The role of arsenic in food and its relationship to health is not well understood. While rice, along with many other foods, contains this naturally occurring element, we understand that rice only contributes a minor amount to a person's diet. Currently, the EPA has established a limit for arsenic in drinking water, and the FDA has established the same limit in bottled water, the only product that has an FDA limit. These limits are based on the amount of water consumed each day by the average person. The FDA has also established guidelines for some fruit juices but has not set specific limits.

What we know about rice

Scientists and health experts have long had a good understanding of the health benefits of a diet low in fat and high in complex carbohydrates. Rice has consistently been recommended as the foundation of a healthy diet. Increasingly whole grains, including brown rice, are being recognized for their additional health benefits and their increased consumption is encouraged.

Rice is also the most consumed grain around the world, with about half of the world's population relying on rice as the basis of their daily diet. Rice furnishes not only an excellent source of complex carbohydrates, but also energy, fiber, antioxidants and many vitamins and minerals.

With regard to the impact of arsenic on health, populations in various countries that eat larger amounts of rice do not show elevated levels of arsenic-related health concerns. Health effects have been more closely linked with high levels of arsenic in drinking water in certain parts of the world.

What is next

We are calling on the FDA to help consumers, our farmers and rice mills understand arsenic in rice, rice products and food. We seek their assistance in providing a science-based understanding of healthy food and this naturally occurring element. We also seek their guidance in developing standard testing methods and appropriate dietary levels.

Useful information

Rice is one of the great, natural and healthy foods. The benefits of a diet that include rice are clear and well documented. As a people, the world has been eating rice for thousands of years.

It is also important to keep in mind that many reports provide numeric arsenic measurements with little context. For example, one part per billion (ppb) is equivalent to one drop of water diluted in 13,750 gallons of water or three seconds in a century.

Below are links to some additional resources on arsenic, rice and health that you may find useful. While not intended to be exhaustive, these resources provide information that may not be readily available.

[**Dietary Intake of Whole Grains Study**](#)

[**Whole Grain Consumption is associated with diet quality and nutrition intake in adults**](#)

[**Rice Consumption recent evidence from food consumption surveys**](#)