

Policy Brief

Aflatoxin Intake: A Food Safety & Public Health Threat in Bangladesh

Growing concern: Improper post-harvest management of cereals (e.g., rice, wheat) and pulses (e.g., lentil, mung) creates a pathway to expose aflatoxins which can cause a serious threat to food safety as well as public health. The exposure of aflatoxin through cereals is found to be very high and varies markedly among adults (male, female) and adolescents (boys, girls), as seen in **Table 1**.

Table 1. Dietary risk exposure of aflatoxins

Toxins in diet	Tolerable Daily Intake (TDI)	Mean dietary risk exposure	
		Adult (M/F)	Adolescents (Boys/Girls)
Total aflatoxin (ng/ Kg BW d)	0.4-3.7	22.25	37.20

The dietary exposure of total aflatoxin was found to greatly exceed the tolerable daily intake (TDI), especially in Khulna and Chattogram divisions. Exposure to aflatoxin was the highest from rice followed by pulses. The Hepatitis B surface antigen (HBsAg) positive individuals of Khulna and Chattogram divisions could be under a high estimated risk of liver cancer at current exposure level of aflatoxins.

Poor storage and post-harvest management are the main causes of high mycotoxin exposure. Improper drying of harvested grains, high temperature and humidity of the storage rooms in different market hubs across the country make them susceptible to aflatoxin contamination.

What can Policymakers do?

- ✓ Awareness campaigns should be promoted to maintain the appropriate moisture content of rice and pulses for storage and also maintain the proper temperature and humidity of the storage places. This will help decrease aflatoxin intake through the diet consumed.
- ✓ Enforcing regulation and regular surveillance by BFSA (Bangladesh Food Safety Authority) in different market hubs is essential for ensuring proper storage conditions and storage time for rice and pulses.
- ✓ Ensure proper coordination among producers, regulatory authorities, and consumers.



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