

► Time-saving method that reduces consumption

AFTER discovering the benefits of frozen rice, 31-year-old Nurhanisah Johari revamped her kitchen routine by cooking the staple just once to last for five days.

Since adopting the change last year, the online entrepreneur said it has not only saved time and reduced rice consumption, but also helped streamline her family's meal planning.

"I usually cook two pots of brown rice for my husband and two pots of white rice for myself. Once cooled, I portion them into five containers each and store them in the freezer.

"Each day, we simply take out one container for lunch," she said, adding that the rice must be fully cooled before being frozen in airtight containers.

Elaborating on her routine, Nurhanisah said frozen rice should be stored separately from side dishes or raw ingredients to prevent contamination.

She also reheats the rice using a microwave by adding a tablespoon of hot water on medium-high heat before serving it to her family.

"The texture of the rice after reheating is still good, like freshly cooked rice. So far, we have never encountered any problems," she said.

Difference is in glycemic index

"The rising trend of consuming frozen rice, particularly among urban dwellers and working individuals, is seen as a potential alternative for diabetes patients, according to Universiti Putra Malaysia (UPM) dietitian Jazlina Syahrul.

She explained the main difference between frozen rice and freshly cooked rice lies in the Glycemic Index

(GI), which indicates how quickly food raises blood sugar levels and the starch content.

She explained the key difference between frozen rice and freshly cooked rice lies in their GI, which measures how quickly food raises blood sugar levels.

"Freshly cooked white rice has a moderately high GI. However, studies have shown when rice is cooled, stored overnight in the fridge and then reheated, some of its starch transforms into resistant starch," she said.

"Resistant starch is a type of fibre that is not digested by the small intestine. Instead it passes into the large intestine, where it undergoes fermentation. In simple terms, rice with more resistant starch causes a slower, more controlled increase in blood sugar levels."

For this reason, Jazlina explained frozen rice has the advantage of helping control blood sugar, making it a suitable option for diabetes patients as a substitute for some regular white rice.

"Frozen rice is not a magical low-calorie food. If calorie control is the goal, the focus should remain on managing rice portions and selecting healthier side dishes. However, frozen rice can be a simple way to boost fibre intake and promote satiety, although it is important to still be mindful of portion sizes," she added.

While frozen rice offers its benefits, food safety must be a priority to prevent food poisoning. According to UPM food policy expert Dr Siti Nurhayati Khairatun, improperly reheated frozen rice poses a risk of food poisoning due to potentially active bacteria.

Frozen rice smarter, healthier option?



Siti Nurhayati says frozen rice do not only reduce consumption but also saves time. – 123RF/PIC

Bacteria risk

Siti Nurhayati explained reheating must be thorough, as the primary risk is the growth of *Bacillus cereus* (*B. cereus*), a bacterium commonly associated with starchy foods. The spores of *B. cereus* naturally exist in raw rice and can survive the cooking process.

"If cooked rice is left at room temperature for too long (more than two hours), these spores can develop into active bacteria. These bacteria

can then produce toxins that lead to food poisoning," she said, adding that freezing does not kill the bacteria or stop the production of toxins once they have been formed.

Siti Nurhayati, who is also a senior lecturer at the Faculty of Food Science and Technology, said several preventive measures can be taken to reduce the risk of food poisoning from frozen rice.

"After cooking, rice should be cooled as quickly as possible and

divided into small portions to speed up the cooling process. Once cooled, the rice should be stored in airtight containers and frozen immediately to prevent bacterial growth.

"Next, the defrosting process should be done in the refrigerator, not at room temperature. When reheating the rice, it should be stirred to ensure even heating and the reheated rice should be consumed immediately and not stored or reheated again," she said. – Bernama