**Space cuisine, or what do astronauts eat?**

Astronauts' food during their missions must meet several different criteria. For example, it should be rich in essential vitamins and nutrients and have a sufficiently long shelf life. So what do astronauts eat, and what can't they eat?

Astronauts' cuisine: what and how do they eat?

Supposedly, the first meal Yuri Gagarin ate in space was black caviar. An ideal dish to commemorate such a momentous occasion. However, according to official data, the menu for the first astronaut was much more modest. Gagarin probably ate tubes containing mashed potatoes with meat, followed by chocolate mousse for dessert.

**Little space, little taste**

Considering that Gagarin spent just under two hours in space, food wasn't as crucial for him. However, times have changed, and flights now last much longer - astronauts spend not hours but months in space. Therefore, a suitable and balanced diet is essential for a successful mission.

Above all, food should have a long shelf life, take up as little space as possible, and be easy to prepare and consume in reduced gravity conditions.

Of course, the simplest way to prepare meals is in the form of powders, tubes, or tablets. Although such solutions meet the expectations of dietitians, they certainly wouldn't satisfy the astronauts themselves.

**Modern techniques for preparing space meals**

Currently, astronauts stationed on space stations eat like in the best restaurants, and the menu includes delicacies from American, Russian, and even Italian or Chinese cuisine. Each astronaut adds something of their own to the space menu. About 8 to 9 months before the flight, they have the opportunity to try various dishes and beverages from the space menu and choose the ones that suit them best. It's important that the meals are approved by dietitians and suitable for serving in reduced gravity conditions.

Once the list of dishes is agreed upon, they undergo detailed examinations and tests to prepare them properly. One way to extend the shelf life of space meals is dehydration, or lyophilization. To make them ready to eat, all you need to do is add water back to them. Other techniques such as freezing, sterilization, or vacuum packaging are also used.

One way of storing food is vacuum packaging.

The spacecraft is equipped with a kitchen table to which trays of food are attached. The trays are equipped with various strips or clamps. This way, the crew can enjoy lunch without worrying that the meal will float away.

The space menu also includes various types of drinks: coffee, tea, juices. However, these products are also dehydrated to reduce their mass as much as possible. The crew must hydrate them directly before consumption. Next to the table is a water dispenser equipped with a valve for hot and cold water.

**Perpetually stuffy noses**

Despite significant advances in the quality of food products intended for consumption during a space mission, there are still some inconveniences that cannot be avoided. Astronauts cannot fully enjoy their food because their noses are perpetually stuffy in weightlessness, making the consumed dishes taste bland and flavorless.

Therefore, they primarily choose spicy dishes with a strong taste and aroma in the space kitchen. Spices are also a very important element of space cuisine.

**What astronauts can't eat and drink?**

Unfortunately, astronauts must forget about carbonated drinks. After opening a can or bottle, the bubbles do not rise upwards, leaving the drink sweet and unappetizing instead of refreshing.

Moreover, in space, just like on Earth, drinking carbonated drinks can cause burping, which in weightlessness can have serious consequences. After burping, food particles floating in the upper part of the stomach can move upward.

Unfortunately, astronauts can only dream of other cold drinks as well, as the spacecraft is not equipped with a refrigerator. Food is prepared in such a way that it does not require cooling - tightly packed or dried.

Another popular and seemingly innocent product is bread. It turns out that bread crumbs in weightlessness can be dangerous for humans because they can cause choking when swallowed. The solution to the bread problem turned out to be Mexican tortillas. Packing them in a nitrogen atmosphere prevents oxygen from entering, which promotes mold growth.

Currently, tortillas are one of the basic food products for astronauts.

There are also no fresh vegetables and fruits. Astronauts can consume them for a maximum of 2 days from the start of the expedition before the spoiling process begins. Fruits or vegetables are usually dried or subjected to lyophilization.