Space Food & Nutrition

Four decades ago, space food to the Mercury astronauts meant freeze-dried powders and semi-liquids in aluminum tubes. But today, astronauts on the International Space Station can choose from shrimp cocktail, stir fried chicken and fettuccine alfredo.

The kinds of foods crewmembers eat aboard the Space Shuttle are not mysterious concoctions, but foods prepared here on Earth. Diets are designed to supply each astronaut with 100 percent of the daily value of vitamins and minerals necessary for the environment of space.

Foods flown on space missions are researched and developed at the Space Food Systems Laboratory at Johnson Space Center. Meal evaluations are conducted with Shuttle flight crews nearly nine months before their space mission.

During the food evaluation sessions, astronauts sample a variety of foods and beverages available for flight. Foods are analyzed through nutritional analysis, sensory evaluation, storage studies, packaging evaluations and many other methods.

NASA’s food specialists plan daily menus that include breakfast, lunch, dinner and snacks. So nutritionists have to be quite creative to prevent “meal boredom” for the astronauts. The types of food available include rehydratable, thermostabilized, irradiated and natural-form items such as nuts, granola bars and cookies.

Getting enough calories, vitamins and minerals is as important for astronauts as it is for people living on Earth. Astronauts need the same number of calories for energy during spaceflight as they need on the ground.