

NASA-S-66-12115

PROJECT GEMINI BIOCHEMISTRIES
 GEMINI VII CP
 URINE 17 - HYDROXYCORTICOSTEROIDS

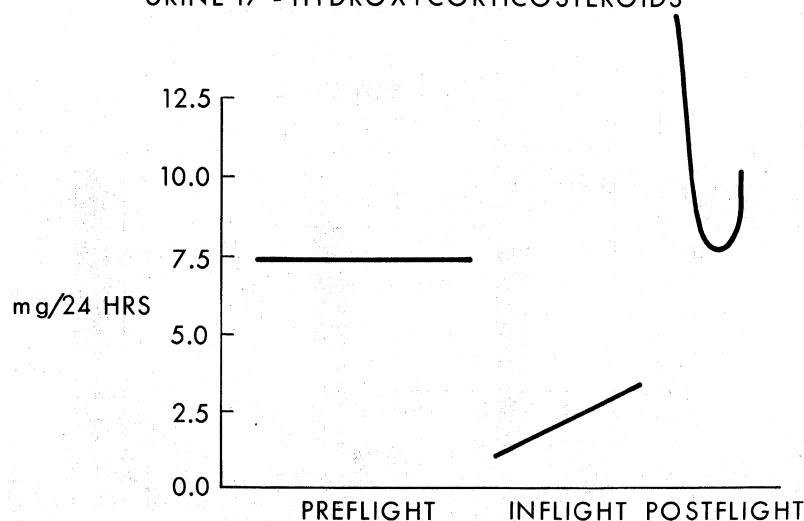


FIGURE 18

Another one we have looked at, a third profile (fig. 19), involves looking at metabolism and bone metabolism, in particular. This is a substance, plasma hydroxyproline, which is involved with the matrix of the bone, and you can see, here, that, again, there is an increase in its excretion postflight. Here are two preflight examinations. There was an increase postflight, and, therefore, this goes along with some loss in bone matrix, which we can determine by another method, which you will see in just a moment.

We have been interested in maintaining an adequate diet in flight, and this is the type of foods (figs. 20 and 21) that have been provided as a typical diet rundown for the days that you see listed here during the 14-day flight. These are freeze dehydrated foods, about 50 percent of them. They need to be hydrated, like the grapefruit drink, chicken and gravy, and applesauce. The peanut cubes and beef sandwiches need to be hydrated, too, but with saliva.

The beef sandwiches and peanut cubes in this particular menu are bite sized which are compressed, high density, and do not need to be hydrated except with saliva.

Congressman TEAGUE. Did they eat all their food?

Dr. BERRY. We are going to show you that right now, sir.

Here is the 4-day flight (fig. 22), and here is what was provided onboard, this solid line across here. It was 2,550 calories. You can see the variations that occur in caloric intake for each individual by the bars.

You see, here, an average line for each of the crewmen.