



Space to Ground

1
00:00:06,950 --> 00:00:05,030
houston station on space to ground

2
00:00:09,190 --> 00:00:06,960
welcome to space to ground i'm nilla for

3
00:00:11,669 --> 00:00:09,200
ramji with the return of spaceX's

4
00:00:13,749 --> 00:00:11,679
commercial resupply mission 22 back to

5
00:00:16,269 --> 00:00:13,759
earth the science investigations aboard

6
00:00:18,630 --> 00:00:16,279
will continue to make impacts the

7
00:00:20,390 --> 00:00:18,640
lyophilization 2 experiment is one of

8
00:00:23,029 --> 00:00:20,400
the investigations on the dragon

9
00:00:24,630 --> 00:00:23,039
spacecraft lyophilization or freeze

10
00:00:26,470 --> 00:00:24,640
drying is a common method for

11
00:00:29,189 --> 00:00:26,480
formulating pharmaceuticals with

12
00:00:31,109 --> 00:00:29,199
improved chemical and physical stability

13
00:00:33,110 --> 00:00:31,119

this investigation could result in

14

00:00:35,910 --> 00:00:33,120

improved freeze drying processes for

15

00:00:38,150 --> 00:00:35,920

pharmaceutical and other industries

16

00:00:39,750 --> 00:00:38,160

meanwhile nasa astronaut mark vanderheim

17

00:00:41,190 --> 00:00:39,760

was busy working on space flight

18

00:00:43,350 --> 00:00:41,200

nutrition

19

00:00:45,510 --> 00:00:43,360

the food physiology investigation is

20

00:00:47,510 --> 00:00:45,520

designed to characterize the key effects

21

00:00:50,150 --> 00:00:47,520

of an enhanced space flight diet on

22

00:00:52,310 --> 00:00:50,160

immune function the gut microbiome and

23

00:00:54,470 --> 00:00:52,320

nutritional status indicators

24

00:00:56,069 --> 00:00:54,480

these factors are interlinked but diet

25

00:00:58,790 --> 00:00:56,079

is the only one that can be easily

26

00:01:00,950 --> 00:00:58,800

altered on earth or during space flight

27

00:01:03,270 --> 00:01:00,960

this investigation aims to document the

28

00:01:05,350 --> 00:01:03,280

effects of dietary improvements on human

29

00:01:07,670 --> 00:01:05,360

physiology and the ability of those

30

00:01:09,670 --> 00:01:07,680

improvements to enhance adaptation to

31

00:01:11,510 --> 00:01:09,680

space flight the food physiology

32

00:01:13,590 --> 00:01:11,520

investigation studies how an enhanced

33

00:01:15,270 --> 00:01:13,600

diet affects astronauts health the

34

00:01:17,429 --> 00:01:15,280

enhanced diet includes an increased

35

00:01:19,990 --> 00:01:17,439

selection of fruits and vegetables and

36

00:01:21,429 --> 00:01:20,000

foods rich in omega-3 fatty acids

37

00:01:23,670 --> 00:01:21,439

keeping astronauts healthy on

38

00:01:25,830 --> 00:01:23,680

long-duration missions is essential and

39

00:01:28,070 --> 00:01:25,840

this study seeks to define targeted

40

00:01:30,069 --> 00:01:28,080

efficient dietary changes to maintain

41

00:01:31,990 --> 00:01:30,079

crew health and performance it could

42

00:01:34,310 --> 00:01:32,000

also contribute to our understanding of

43

00:01:35,510 --> 00:01:34,320

how complex organisms adapt to space

44

00:01:37,670 --> 00:01:35,520

flight

45

00:01:39,510 --> 00:01:37,680

food continued to be the theme as nasa

46

00:01:41,429 --> 00:01:39,520

astronaut megan macarthur worked on the

47

00:01:43,510 --> 00:01:41,439

first formal investigation of how a

48

00:01:45,350 --> 00:01:43,520

repetitive menu affects astronauts

49

00:01:47,830 --> 00:01:45,360

during space flight the food

50

00:01:49,990 --> 00:01:47,840

acceptability investigation examines

51
00:01:51,830 --> 00:01:50,000
changes in the appeal of food aboard the

52
00:01:53,590 --> 00:01:51,840
international space station during long

53
00:01:55,670 --> 00:01:53,600
duration missions

54
00:01:57,749 --> 00:01:55,680
acceptability of food whether crew

55
00:02:00,230 --> 00:01:57,759
members like and actually eat something

56
00:02:03,429 --> 00:02:00,240
may directly affect crew caloric intake

57
00:02:05,109 --> 00:02:03,439
and associated nutritional benefits

58
00:02:06,709 --> 00:02:05,119
that's space to ground for this week