SPACE TO GROUND

1
00:00:06,630 --> 00:00:03,669
houston station on space to ground

2
00:00:08,549 --> 00:00:06,640
take a deep breath

3
00:00:10,950 --> 00:00:08,559
welcome to space to ground i'm dan

4
00:00:13,270 --> 00:00:10,960
hewitt a lot of work goes into staying

5
00:00:15,990 --> 00:00:13,280
healthy in space and one experiment is

6
00:00:17,990 --> 00:00:16,000
taking a look at astronauts lungs the

7
00:00:20,710 --> 00:00:18,000
airway monitoring experiment from the

8
00:00:23,429 --> 00:00:20,720
european space agency places astronauts

9
00:00:25,750 --> 00:00:23,439
inside the station's quest airlock

10
00:00:27,910 --> 00:00:25,760
using special tools the amount of nitric

11
00:00:30,230 --> 00:00:27,920
oxide exhaled with each breath is

12
00:00:32,630 --> 00:00:30,240
measured by doctors since it is an

13
00:00:35,430 --> 00:00:32,640

important indicator to help diagnose and

14
00:00:37,350 --> 00:00:35,440
flame lungs and asthma developing the

15
00:00:39,430 --> 00:00:37,360
methods for astronauts to do this kind

16
00:00:40,869 --> 00:00:39,440
of analysis themselves will make them

17
00:00:43,430 --> 00:00:40,879
more self-sufficient when on

18
00:00:44,950 --> 00:00:43,440
long-duration missions way beyond earth

19
00:00:47,270 --> 00:00:44,960
when they'll essentially have to be

20
00:00:49,590 --> 00:00:47,280
their own doctors and could be exposed

21
00:00:50,709 --> 00:00:49,600
to new dusty environments on alien

22
00:00:52,630 --> 00:00:50,719
planets

23
00:00:55,350 --> 00:00:52,640
it's summertime which means it's time

24
00:00:58,069 --> 00:00:55,360
for another spheres competition

25
00:01:00,389 --> 00:00:58,079
the synchronized position hold engage

26
00:01:02,630 --> 00:01:00,399
reorient experimental satellites are

27
00:01:04,710 --> 00:01:02,640
back and gearing up for competition runs

28
00:01:06,789 --> 00:01:04,720
next week jeff williams and all

29
00:01:08,550 --> 00:01:06,799
excapocho worked with the project lead

30
00:01:10,630 --> 00:01:08,560
to put the self-contained satellites

31
00:01:12,630 --> 00:01:10,640
through their paces next week high

32
00:01:14,310 --> 00:01:12,640
school students will compete flying the

33
00:01:16,630 --> 00:01:14,320
satellites around the station to

34
00:01:18,310 --> 00:01:16,640
accomplish tasks relevant to future

35
00:01:20,630 --> 00:01:18,320
space missions

36
00:01:22,870 --> 00:01:20,640
this week twitter user cosmic dust wants

37
00:01:25,030 --> 00:01:22,880
to know how many calories astronauts

38
00:01:27,270 --> 00:01:25,040

have to consume daily given the zero

39
00:01:29,350 --> 00:01:27,280
gravity and less energy needed for

40
00:01:31,590 --> 00:01:29,360
moving well as it turns out their

41
00:01:34,230 --> 00:01:31,600
calorie count is the same as it would be

42
00:01:36,710 --> 00:01:34,240
here on earth or even higher

43
00:01:38,630 --> 00:01:36,720
in general astronaut energy requirements

44
00:01:41,109 --> 00:01:38,640
are the same in space as they are here

45
00:01:43,990 --> 00:01:41,119
on earth meaning if they're on an active

46
00:01:45,830 --> 00:01:44,000
2500 calorie a day diet down here

47
00:01:48,630 --> 00:01:45,840
nutritionists plan that for them in

48
00:01:51,109 --> 00:01:48,640
space however depending on how much they

49
00:01:53,510 --> 00:01:51,119
exercise and remember every astronaut

50
00:01:55,749 --> 00:01:53,520
averages about two hours of exercise per

51
00:01:58,870 --> 00:01:55,759
day some studies have shown they need

52
00:02:00,870 --> 00:01:58,880
even more calories while in space

53
00:02:03,030 --> 00:02:00,880
keep sending us your questions using the