

THE HUMAN CHALLENGES OF

MARS

**BALANCE AND
COORDINATION**

1
00:00:05,110 --> 00:00:03,429
one of the many challenges that we face

2
00:00:07,430 --> 00:00:05,120
on our mission to mars

3
00:00:09,669 --> 00:00:07,440
is how our brain will adapt to the

4
00:00:11,430 --> 00:00:09,679
changes in gravity it could take up to

5
00:00:13,430 --> 00:00:11,440
six months to get there but here's the

6
00:00:14,549 --> 00:00:13,440
problem the more time you spend in space

7
00:00:16,070 --> 00:00:14,559
the longer it takes your brain to

8
00:00:17,910 --> 00:00:16,080
re-adapt to gravity so what does that

9
00:00:19,189 --> 00:00:17,920
mean landing on mars after being

10
00:00:21,029 --> 00:00:19,199
weightless for six months you have

11
00:00:23,509 --> 00:00:21,039
trouble walking straight your vision is

12
00:00:26,230 --> 00:00:23,519
affected poor eye hand coordination

13
00:00:28,310 --> 00:00:26,240

motion sickness dizziness vomiting some

14

00:00:29,589 --> 00:00:28,320

people don't even want to move

15

00:00:31,589 --> 00:00:29,599

landing is one of the most critical

16

00:00:33,830 --> 00:00:31,599

aspects of the journey so how will this

17

00:00:36,069 --> 00:00:33,840

impact our trip to mars first of all

18

00:00:38,229 --> 00:00:36,079

landing on mars will require good eye

19

00:00:40,069 --> 00:00:38,239

hand coordination and perception so say

20

00:00:41,830 --> 00:00:40,079

you have a safe touchdown but there's an

21

00:00:43,990 --> 00:00:41,840

emergency situation and you have to exit

22

00:00:46,069 --> 00:00:44,000

the vehicle if you can't function it

23

00:00:47,830 --> 00:00:46,079

could be a pretty dangerous situation

24

00:00:49,670 --> 00:00:47,840

this is just one of the human challenges

25

00:00:51,590 --> 00:00:49,680

we'll face on a mission to mars we don't

26

00:00:54,069 --> 00:00:51,600

have all the answers yet but we do have

27

00:00:55,750 --> 00:00:54,079

the key the international space station

28

00:00:57,350 --> 00:00:55,760

every day aboard we're learning more and

29

00:00:58,470 --> 00:00:57,360

more about how our bodies adapt to

30

00:01:00,549 --> 00:00:58,480

weightless environments and

31

00:01:03,189 --> 00:01:00,559

gravitational transitions we're going to

32

00:01:05,109 --> 00:01:03,199

mars it won't be easy but because of the

33

00:01:06,870 --> 00:01:05,119

research that we're doing today on the