



1  
00:00:05,829 --> 00:00:03,750  
ktrk tv this is mission control houston

2  
00:00:08,549 --> 00:00:05,839  
please call station 4 voice check

3  
00:00:09,669 --> 00:00:08,559  
station this is ktrk this can you hear

4  
00:00:11,669 --> 00:00:09,679  
me

5  
00:00:17,430 --> 00:00:11,679  
tv

6  
00:00:17,440 --> 00:00:22,390  
hi scott it's kevin quinn how you doing

7  
00:00:22,400 --> 00:00:27,750  
doing good kevin how are you

8  
00:00:32,310 --> 00:00:30,070  
i'm good i'm good let's talk a little

9  
00:00:38,389 --> 00:00:32,320  
bit about your mission this time so far

10  
00:00:42,869 --> 00:00:41,030  
you know it's uh it's interesting when i

11  
00:00:44,470 --> 00:00:42,879  
got on board the space station the one

12  
00:00:46,150 --> 00:00:44,480  
thing i noticed that was different than

13  
00:00:48,150 --> 00:00:46,160

when i got on board last time is that i

14  
00:00:50,470 --> 00:00:48,160  
was much more comfortable here you know

15  
00:00:53,189 --> 00:00:50,480  
it's uh really amazing how your body

16  
00:00:55,110 --> 00:00:53,199  
remembers the environment uh how you

17  
00:00:57,350 --> 00:00:55,120  
move around well just how your you know

18  
00:00:59,349 --> 00:00:57,360  
your body systems

19  
00:01:01,990 --> 00:00:59,359  
you know remember being up here

20  
00:01:04,950 --> 00:01:02,000  
uh so that was different in a good way i

21  
00:01:06,789 --> 00:01:04,960  
was more comfortable

22  
00:01:08,230 --> 00:01:06,799  
but also a lot of things were the same

23  
00:01:09,830 --> 00:01:08,240  
you know it was interesting seeing how

24  
00:01:13,590 --> 00:01:09,840  
the space station

25  
00:01:15,429 --> 00:01:13,600  
by and large does not look like it aged

26

00:01:21,670 --> 00:01:15,439

four years since i was here last and

27

00:01:25,749 --> 00:01:23,749

a mission like this for a year in space

28

00:01:31,830 --> 00:01:25,759

do you have to take necessarily a

29

00:01:35,749 --> 00:01:34,149

yeah i do you know when i was here last

30

00:01:37,830 --> 00:01:35,759

time on a

31

00:01:38,710 --> 00:01:37,840

on a six month or around a six-month

32

00:01:40,390 --> 00:01:38,720

flight

33

00:01:42,069 --> 00:01:40,400

it's almost the type of thing where you

34

00:01:43,190 --> 00:01:42,079

can kind of see the end from the

35

00:01:46,149 --> 00:01:43,200

beginning

36

00:01:47,749 --> 00:01:46,159

and uh you know you you think about

37

00:01:50,069 --> 00:01:47,759

well you know i got through this month

38

00:01:51,109 --> 00:01:50,079

and i got you know four or five more to

39

00:01:52,149 --> 00:01:51,119

go

40

00:01:54,389 --> 00:01:52,159

um

41

00:01:57,190 --> 00:01:54,399

i don't think that way now and i i think

42

00:01:59,030 --> 00:01:57,200

it's um you know critical to me be able

43

00:02:00,950 --> 00:01:59,040

being able to function and work up here

44

00:02:02,789 --> 00:02:00,960

for a long period of time

45

00:02:04,870 --> 00:02:02,799

i just try to have the mindset that this

46

00:02:07,350 --> 00:02:04,880

is where i live now and uh you know

47

00:02:08,630 --> 00:02:07,360

someday in the future long in the future

48

00:02:09,589 --> 00:02:08,640

i'll leave

49

00:02:11,350 --> 00:02:09,599

but

50

00:02:13,350 --> 00:02:11,360

between now and then you know what's

51  
00:02:14,949 --> 00:02:13,360  
important is for me to pace myself to

52  
00:02:17,350 --> 00:02:14,959  
get enough rest

53  
00:02:18,710 --> 00:02:17,360  
to get enough exercise and

54  
00:02:23,990 --> 00:02:18,720  
you know because i'm in this for the

55  
00:02:29,910 --> 00:02:25,910  
what are you missing most at this point

56  
00:02:33,750 --> 00:02:31,830  
yeah you know you always miss uh i think

57  
00:02:36,150 --> 00:02:33,760  
what everyone misses the most is the

58  
00:02:38,150 --> 00:02:36,160  
humor human interaction you you have on

59  
00:02:40,309 --> 00:02:38,160  
earth with uh you know your family

60  
00:02:42,309 --> 00:02:40,319  
people you love your friends

61  
00:02:44,070 --> 00:02:42,319  
um

62  
00:02:46,229 --> 00:02:44,080  
you know even though we all get along

63  
00:02:47,670 --> 00:02:46,239

great and we like each other

64

00:02:49,030 --> 00:02:47,680

there's not a whole lot of variety of

65

00:02:51,910 --> 00:02:49,040

people up here

66

00:02:52,790 --> 00:02:51,920

it's same people all day every day and

67

00:02:54,229 --> 00:02:52,800

uh

68

00:02:56,150 --> 00:02:54,239

so you miss

69

00:02:58,070 --> 00:02:56,160

the variety of that on earth you also

70

00:02:59,589 --> 00:02:58,080

miss uh the weather

71

00:03:01,910 --> 00:02:59,599

uh you know i know you've been having

72

00:03:03,430 --> 00:03:01,920

some bad weather in houston and uh you

73

00:03:06,229 --> 00:03:03,440

know i really feel for you guys down

74

00:03:09,270 --> 00:03:06,239

there uh it's really unfortunate the the

75

00:03:11,430 --> 00:03:09,280

tragedy and the the loss of life and uh

76

00:03:14,309 --> 00:03:11,440

you know property and

77

00:03:15,830 --> 00:03:14,319

that's that's occurred but uh

78

00:03:17,509 --> 00:03:15,840

when you're in this environment and it's

79

00:03:19,110 --> 00:03:17,519

a closed environment and there's no

80

00:03:21,190 --> 00:03:19,120

breeze there's no

81

00:03:22,949 --> 00:03:21,200

you know smell of nature there's no

82

00:03:25,350 --> 00:03:22,959

going outside

83

00:03:27,830 --> 00:03:25,360

walking around

84

00:03:29,750 --> 00:03:27,840

experiencing the rain although i know a

85

00:03:31,430 --> 00:03:29,760

lot of people in houston would like to

86

00:03:38,710 --> 00:03:31,440

not experience it rain for a while that

87

00:03:45,030 --> 00:03:41,190

what's it like i know you've sent a lot

88

00:03:47,350 --> 00:03:45,040

of amazing pictures from iss in your

89

00:03:49,190 --> 00:03:47,360

two months or so up there so far

90

00:03:50,949 --> 00:03:49,200

what's it like to see all of the flood

91

00:03:52,470 --> 00:03:50,959

waters from your perspective at this

92

00:03:58,070 --> 00:03:52,480

point when you look back upon the

93

00:04:01,270 --> 00:03:59,910

well you know we don't fly over the same

94

00:04:05,030 --> 00:04:01,280

spot of the gran

95

00:04:06,550 --> 00:04:05,040

spot over the ground um very often

96

00:04:08,789 --> 00:04:06,560

where

97

00:04:10,470 --> 00:04:08,799

the timing is right the lighting's right

98

00:04:13,670 --> 00:04:10,480

the weather is right

99

00:04:15,270 --> 00:04:13,680

and uh you know you're awake

100

00:04:17,270 --> 00:04:15,280

like for instance right now we're at

101  
00:04:19,430 --> 00:04:17,280  
what's called a high beta angle so we're

102  
00:04:21,990 --> 00:04:19,440  
kind of riding the you know the our

103  
00:04:23,430 --> 00:04:22,000  
orbit kind of parallels twilight for a

104  
00:04:25,670 --> 00:04:23,440  
lot of the time

105  
00:04:27,670 --> 00:04:25,680  
so it's kind of hard to see the ground

106  
00:04:28,629 --> 00:04:27,680  
plus in the case of houston with all the

107  
00:04:32,390 --> 00:04:28,639  
rain

108  
00:04:34,070 --> 00:04:32,400  
so

109  
00:04:35,510 --> 00:04:34,080  
you know we don't have a good view of

110  
00:04:37,350 --> 00:04:35,520  
the ground so

111  
00:04:39,909 --> 00:04:37,360  
you know i haven't had much opportunity

112  
00:04:42,150 --> 00:04:39,919  
to get get my eyeballs with a big lens

113  
00:04:42,950 --> 00:04:42,160

or binoculars on houston a little bit

114

00:04:44,710 --> 00:04:42,960

but

115

00:04:47,909 --> 00:04:44,720

it's not like we can look at the window

116

00:04:53,350 --> 00:04:47,919

uh often and see the the kind of the

117

00:04:58,150 --> 00:04:55,749

scott talk a little bit about the the

118

00:04:59,590 --> 00:04:58,160

issues with cargo resupply with progress

119

00:05:01,909 --> 00:04:59,600

is failure

120

00:05:04,790 --> 00:05:01,919

how critical is it that

121

00:05:09,590 --> 00:05:04,800

food fuel supplies all get to you and

122

00:05:15,110 --> 00:05:12,710

well you know the space station has a

123

00:05:17,350 --> 00:05:15,120

lot of redundancy and and one area of

124

00:05:19,350 --> 00:05:17,360

redundancy is redundant vehicles to

125

00:05:20,629 --> 00:05:19,360

deliver cargo

126

00:05:22,150 --> 00:05:20,639

um

127

00:05:24,150 --> 00:05:22,160

you know progress is the only vehicle

128

00:05:27,029 --> 00:05:24,160

that delivers fuel but we have plenty on

129

00:05:28,550 --> 00:05:27,039

board to last us until the next one gets

130

00:05:29,430 --> 00:05:28,560

up here

131

00:05:31,430 --> 00:05:29,440

and

132

00:05:34,469 --> 00:05:31,440

like i said you know we have a redundant

133

00:05:36,870 --> 00:05:34,479

spacex vehicle hopefully orbital will be

134

00:05:39,189 --> 00:05:36,880

flying again soon htv

135

00:05:41,510 --> 00:05:39,199

we have one of those in august so we

136

00:05:43,510 --> 00:05:41,520

have uh you know a couple of spacex

137

00:05:44,629 --> 00:05:43,520

vehicles coming up in the near future

138

00:05:47,110 --> 00:05:44,639

htv

139

00:05:49,350 --> 00:05:47,120

and uh they'll definitely tide us over

140

00:05:54,550 --> 00:05:49,360

until uh progress gets flying again

141

00:05:58,070 --> 00:05:56,469

of all the research you've done so far

142

00:05:59,749 --> 00:05:58,080

scott what

143

00:06:05,029 --> 00:05:59,759

for you personally has been the most

144

00:06:09,430 --> 00:06:07,430

you know uh we do a lot of

145

00:06:10,950 --> 00:06:09,440

the human research is pretty interesting

146

00:06:13,510 --> 00:06:10,960

a lot of uh

147

00:06:16,469 --> 00:06:13,520

scans ultrasounds i was doing yesterday

148

00:06:19,029 --> 00:06:16,479

as part of this fluid shifts experiment

149

00:06:22,950 --> 00:06:19,039

um next week i'm going to do

150

00:06:26,230 --> 00:06:22,960

those uh those scans ultrasound scans

151

00:06:27,350 --> 00:06:26,240

while in this chibus which is a russian

152

00:06:29,749 --> 00:06:27,360

uh

153

00:06:32,309 --> 00:06:29,759

piece of hardware that the russians use

154

00:06:35,510 --> 00:06:32,319

to to you know mitigate the effects of

155

00:06:37,110 --> 00:06:35,520

weightlessness and the the fluid shifts

156

00:06:39,189 --> 00:06:37,120

and they use this prior to coming home

157

00:06:41,110 --> 00:06:39,199

so it pulls a vacuum on the lower part

158

00:06:43,430 --> 00:06:41,120

of your body and we're gonna i'm gonna

159

00:06:45,990 --> 00:06:43,440

be the first american

160

00:06:47,749 --> 00:06:46,000

to use that device since the mere days

161

00:06:48,950 --> 00:06:47,759

and we're gonna look at how with the

162

00:06:52,070 --> 00:06:48,960

ultrasound

163

00:06:54,230 --> 00:06:52,080

and some other imaging techniques how um

164

00:06:57,029 --> 00:06:54,240

you know the changes in pressure

165

00:06:59,589 --> 00:06:57,039

uh to our brain up here

166

00:07:01,830 --> 00:06:59,599

uh you know affects the vessels and and

167

00:07:03,749 --> 00:07:01,840

what that effect may have on you know

168

00:07:06,469 --> 00:07:03,759

visu the issues with our vision for

169

00:07:08,629 --> 00:07:06,479

instance um so for me that's been pretty

170

00:07:10,469 --> 00:07:08,639

interesting a lot of the the experiments

171

00:07:12,390 --> 00:07:10,479

we do especially the medical stuff are

172

00:07:13,909 --> 00:07:12,400

human samples so we don't really see the

173

00:07:17,510 --> 00:07:13,919

uh you know the immediate effects of

174

00:07:18,469 --> 00:07:17,520

those but uh you know that and all the

175

00:07:23,830 --> 00:07:18,479

all the other stuff is really

176

00:07:28,710 --> 00:07:25,749

scott i know your your friend tom cook

177

00:07:30,469 --> 00:07:28,720

down here says hello told me to send you

178

00:07:31,670 --> 00:07:30,479

his regard saw that you tweeted a

179

00:07:34,070 --> 00:07:31,680

picture of

180

00:07:40,230 --> 00:07:34,080

watching eyewitness news this morning

181

00:07:44,790 --> 00:07:41,670

yeah we you know we have a good

182

00:07:47,749 --> 00:07:44,800

capability to get recorded and sometimes

183

00:07:49,510 --> 00:07:47,759

live video up here uh so generally when

184

00:07:50,469 --> 00:07:49,520

we're having our meals we can watch the

185

00:07:54,150 --> 00:07:50,479

news

186

00:07:55,830 --> 00:07:54,160

morning that was actually uh several

187

00:07:57,909 --> 00:07:55,840

weeks ago but it's uh

188

00:08:03,589 --> 00:07:57,919

great to watch you guys and some other

189

00:08:06,230 --> 00:08:04,550

all right

190

00:08:09,990 --> 00:08:06,240

best to you and we'll talk to you very

191

00:08:13,510 --> 00:08:11,830

yeah my pleasure kevin good talking and

192

00:08:17,189 --> 00:08:13,520

uh hope to see you back on earth here

193

00:08:19,589 --> 00:08:17,199

and uh within the next year

194

00:08:22,309 --> 00:08:19,599

station this is houston acr that

195

00:08:24,629 --> 00:08:22,319

concludes the ktr cape tv portion of the

196

00:08:47,670 --> 00:08:24,639

event please stand by for a voice check

197

00:08:55,350 --> 00:08:50,310

hi there station this is pri science

198

00:08:59,910 --> 00:08:57,350

i have you loud and clear welcome aboard

199

00:09:10,470 --> 00:08:59,920

the international space station

200

00:09:15,829 --> 00:09:12,230

uh scott your your longest mission

201  
00:09:17,269 --> 00:09:15,839  
before this was 159 days um how do you

202  
00:09:19,350 --> 00:09:17,279  
compare that mission do you have a

203  
00:09:24,630 --> 00:09:19,360  
different mindset that you do for a

204  
00:09:28,150 --> 00:09:26,150  
you know absolutely it's the last time i

205  
00:09:29,990 --> 00:09:28,160  
was here a little bit more than uh

206  
00:09:33,430 --> 00:09:30,000  
five months and uh you know like i was

207  
00:09:35,829 --> 00:09:33,440  
saying earlier when you uh

208  
00:09:37,990 --> 00:09:35,839  
when it's that duration at least in my

209  
00:09:40,150 --> 00:09:38,000  
case you can kind of see the the end of

210  
00:09:43,350 --> 00:09:40,160  
it from from the beginning

211  
00:09:45,110 --> 00:09:43,360  
uh i launched in october got uh

212  
00:09:46,550 --> 00:09:45,120  
i got home in march

213  
00:09:49,670 --> 00:09:46,560

and you just look you know you look at

214

00:09:50,870 --> 00:09:49,680

it on almost as a month-to-month basis

215

00:09:53,590 --> 00:09:50,880

you know get through november

216

00:09:55,750 --> 00:09:53,600

thanksgiving december christmas and then

217

00:09:57,590 --> 00:09:55,760

the new year's and pretty soon it's

218

00:10:00,550 --> 00:09:57,600

almost time to come home

219

00:10:03,030 --> 00:10:00,560

this time it's much different

220

00:10:03,829 --> 00:10:03,040

you know i know i'll come home someday

221

00:10:05,509 --> 00:10:03,839

but

222

00:10:07,269 --> 00:10:05,519

from my perspective

223

00:10:09,030 --> 00:10:07,279

i live and work here now i'm going to be

224

00:10:10,870 --> 00:10:09,040

here for a long time and

225

00:10:12,710 --> 00:10:10,880

as such i just kind of have to pace

226

00:10:15,030 --> 00:10:12,720

myself

227

00:10:17,350 --> 00:10:15,040

we talked to don pettit a little while

228

00:10:19,670 --> 00:10:17,360

back about the zero gravity cups and

229

00:10:24,630 --> 00:10:19,680

espresso maker have you been clinking

230

00:10:30,630 --> 00:10:28,550

you know we uh we used don's cup um

231

00:10:33,590 --> 00:10:30,640

that he designed when we used the

232

00:10:34,870 --> 00:10:33,600

espresso maker uh early on once we had

233

00:10:37,509 --> 00:10:34,880

it hooked up

234

00:10:40,069 --> 00:10:37,519

i was surprised at how well it actually

235

00:10:41,509 --> 00:10:40,079

worked i didn't think it would would uh

236

00:10:43,509 --> 00:10:41,519

you know make it seem like you were

237

00:10:45,190 --> 00:10:43,519

drinking out of a cup it's pretty a

238

00:10:47,269 --> 00:10:45,200

pretty clever design

239

00:10:49,350 --> 00:10:47,279

but we don't have a whole lot of uh of

240

00:10:51,350 --> 00:10:49,360

those capsules for the espresso machine

241

00:10:53,430 --> 00:10:51,360

so we haven't used it in a while and

242

00:10:56,310 --> 00:10:53,440

hopefully we will and

243

00:10:59,590 --> 00:10:56,320

hopefully and and i samantha's throwing

244

00:11:01,190 --> 00:10:59,600

the cup at me real quick to show you so

245

00:11:02,389 --> 00:11:01,200

here here's the cup

246

00:11:03,990 --> 00:11:02,399

and uh

247

00:11:05,509 --> 00:11:04,000

yeah like i said it's pretty incredible

248

00:11:07,910 --> 00:11:05,519

how when you go like this it actually

249

00:11:09,910 --> 00:11:07,920

seems to pour uh with gravity even

250

00:11:11,670 --> 00:11:09,920

though there's no gravity but haven't

251  
00:11:13,110 --> 00:11:11,680  
used it much but look forward to using

252  
00:11:16,230 --> 00:11:13,120  
it again

253  
00:11:18,069 --> 00:11:16,240  
we spoke to julie robinson from johnson

254  
00:11:20,710 --> 00:11:18,079  
and she mentioned something called

255  
00:11:22,870 --> 00:11:20,720  
suction pants that has to do with how

256  
00:11:24,470 --> 00:11:22,880  
microgravity affects your vision have

257  
00:11:26,389 --> 00:11:24,480  
you been able to try them out have you

258  
00:11:31,829 --> 00:11:26,399  
noticed that your vision is affected by

259  
00:11:36,949 --> 00:11:34,470  
well that's the first i've heard of that

260  
00:11:39,350 --> 00:11:36,959  
uh that term it it could be something

261  
00:11:40,829 --> 00:11:39,360  
that i had not have had training on or

262  
00:11:43,030 --> 00:11:40,839  
something that's going to come in the

263  
00:11:43,990 --> 00:11:43,040

future um

264

00:11:45,750 --> 00:11:44,000

to

265

00:11:47,910 --> 00:11:45,760

i guess what she's probably talking

266

00:11:51,030 --> 00:11:47,920

about is mitigating the fluid shift that

267

00:11:52,870 --> 00:11:51,040

occurs you know gravity on earth pushes

268

00:11:55,110 --> 00:11:52,880

a lot of the fluid you know out of your

269

00:11:57,350 --> 00:11:55,120

head towards your feet and up here it's

270

00:11:59,750 --> 00:11:57,360

just all redistributed so you you

271

00:12:01,910 --> 00:11:59,760

generally have a higher pressure in your

272

00:12:03,269 --> 00:12:01,920

head and that's why some astronauts me

273

00:12:05,269 --> 00:12:03,279

included when they first get up here

274

00:12:08,230 --> 00:12:05,279

they kind of have a puffy head and that

275

00:12:10,710 --> 00:12:08,240

kind of continues as far as my vision

276

00:12:12,629 --> 00:12:10,720

you know it seems like my middle vision

277

00:12:14,310 --> 00:12:12,639

uh is and distance vision is a little

278

00:12:15,350 --> 00:12:14,320

bit better my reading vision's a little

279

00:12:16,550 --> 00:12:15,360

bit worse

280

00:12:18,790 --> 00:12:16,560

um

281

00:12:19,910 --> 00:12:18,800

you know it varies from time to time up

282

00:12:21,269 --> 00:12:19,920

here

283

00:12:24,150 --> 00:12:21,279

you know i did have some little bit of

284

00:12:25,990 --> 00:12:24,160

structural changes last time

285

00:12:27,269 --> 00:12:26,000

and i'm sure i'll have that this time

286

00:12:28,389 --> 00:12:27,279

and

287

00:12:30,710 --> 00:12:28,399

you know it's

288

00:12:32,710 --> 00:12:30,720

part of the price that some people pay

289

00:12:35,190 --> 00:12:32,720

for going up here and we're trying to

290

00:12:37,110 --> 00:12:35,200

understand it better and understand the

291

00:12:38,470 --> 00:12:37,120

risks and how to mitigate those risks

292

00:12:40,870 --> 00:12:38,480

and hopefully some of the experiments

293

00:12:43,190 --> 00:12:40,880

we're doing on board even next week will

294

00:12:45,750 --> 00:12:43,200

help us do that

295

00:12:47,910 --> 00:12:45,760

the russians had a cosmonaut up there

296

00:12:50,389 --> 00:12:47,920

for 14 months did you talk to him did he

297

00:12:54,389 --> 00:12:50,399

give you any hints or tips about what to

298

00:13:00,389 --> 00:12:56,949

i did not talk to him um i don't think

299

00:13:02,790 --> 00:13:00,399

i've ever met him but uh i did talk to

300

00:13:04,629 --> 00:13:02,800

vladimir titov who spent about a year in

301  
00:13:07,750 --> 00:13:04,639  
space on

302  
00:13:09,590 --> 00:13:07,760  
the mir space station and uh he gave me

303  
00:13:11,670 --> 00:13:09,600  
uh you know one bit of advice and it's

304  
00:13:12,949 --> 00:13:11,680  
just like it was basically just pace

305  
00:13:15,670 --> 00:13:12,959  
yourself you know you're gonna be there

306  
00:13:18,069 --> 00:13:15,680  
for a long time and just uh

307  
00:13:20,470 --> 00:13:18,079  
you know try to keep

308  
00:13:22,389 --> 00:13:20,480  
a good balance of work and rest and

309  
00:13:24,550 --> 00:13:22,399  
you'll do just fine

310  
00:13:27,590 --> 00:13:24,560  
we're speaking to your brother mark

311  
00:13:29,910 --> 00:13:27,600  
today also now which one of you

312  
00:13:36,230 --> 00:13:29,920  
has the better right stuff sibling right

313  
00:13:36,240 --> 00:13:41,269

uh that would be me

314

00:13:45,430 --> 00:13:43,189

why am i not i'm sure

315

00:13:47,509 --> 00:13:45,440

but i'm sure

316

00:13:48,629 --> 00:13:47,519

now i'm sure he would say the same thing

317

00:13:50,069 --> 00:13:48,639

you know we're

318

00:13:51,910 --> 00:13:50,079

we are uh

319

00:13:54,230 --> 00:13:51,920

you know i'm just kidding around i have

320

00:13:55,750 --> 00:13:54,240

no idea you know we're we're

321

00:13:56,870 --> 00:13:55,760

similar in a lot of ways different than

322

00:13:58,389 --> 00:13:56,880

others we're

323

00:14:01,269 --> 00:13:58,399

you know naturally competitive people

324

00:14:03,910 --> 00:14:01,279

but not not competitive with uh you know

325

00:14:05,910 --> 00:14:03,920

between each other uh you know our

326

00:14:08,389 --> 00:14:05,920

experiences in space are

327

00:14:10,230 --> 00:14:08,399

have been a little bit different um but

328

00:14:12,389 --> 00:14:10,240

we both recognize that just having the

329

00:14:14,710 --> 00:14:12,399

ability to fly in space once

330

00:14:15,910 --> 00:14:14,720

is a real privilege and

331

00:14:17,350 --> 00:14:15,920

you know it's just really been an

332

00:14:18,310 --> 00:14:17,360

incredible thing that we could share

333

00:14:20,550 --> 00:14:18,320

together

334

00:14:22,790 --> 00:14:20,560

this great experience and you know both

335

00:14:25,990 --> 00:14:22,800

of us having flown four times is really

336

00:14:27,670 --> 00:14:26,000

uh you know hard to hard to believe

337

00:14:29,750 --> 00:14:27,680

i i know he's on the ground here

338

00:14:32,389 --> 00:14:29,760

comparing what happens to him during

339

00:14:34,949 --> 00:14:32,399

your time up there in space have have

340

00:14:39,430 --> 00:14:34,959

you two noticed any differences already

341

00:14:44,550 --> 00:14:42,069

well most of that comparative research

342

00:14:46,550 --> 00:14:44,560

is is uh you know with

343

00:14:47,990 --> 00:14:46,560

samples of blood and urine and other

344

00:14:50,470 --> 00:14:48,000

things and uh

345

00:14:54,550 --> 00:14:50,480

you know cognitive ability uh some

346

00:14:57,670 --> 00:14:54,560

cognitive experiments experiments using

347

00:14:59,990 --> 00:14:57,680

mrns and you know structural changes

348

00:15:00,870 --> 00:15:00,000

within our our bodies and the chemistry

349

00:15:02,949 --> 00:15:00,880

of our

350

00:15:04,629 --> 00:15:02,959

our bodies our genetics things like that

351

00:15:05,590 --> 00:15:04,639

so there's there's stuff that you don't

352

00:15:09,189 --> 00:15:05,600

see

353

00:15:13,030 --> 00:15:09,199

um that uh you know the researchers at

354

00:15:14,710 --> 00:15:13,040

some point will uh publish papers on you

355

00:15:17,509 --> 00:15:14,720

know for instance how

356

00:15:19,750 --> 00:15:17,519

you know my dna looked one way before

357

00:15:22,150 --> 00:15:19,760

flight and and how he's compared before

358

00:15:24,629 --> 00:15:22,160

flight and then maybe how mine changed

359

00:15:27,590 --> 00:15:24,639

over time while i was here where his you

360

00:15:29,749 --> 00:15:27,600

know in a certain area stayed the same

361

00:15:31,990 --> 00:15:29,759

uh but that's not stuff you can

362

00:15:33,350 --> 00:15:32,000

that we can see at this point but uh you

363

00:15:35,030 --> 00:15:33,360

know stuff that's very important

364

00:15:37,350 --> 00:15:35,040

nonetheless

365

00:15:39,430 --> 00:15:37,360

we asked our listeners what questions

366

00:15:42,150 --> 00:15:39,440

they had for you and we have a couple of

367

00:15:44,629 --> 00:15:42,160

them from twitter i'm gonna see if i can

368

00:15:47,189 --> 00:15:44,639

share them with you david she wanted to

369

00:15:50,310 --> 00:15:47,199

know if the likelihood of infection is

370

00:15:52,150 --> 00:15:50,320

higher on earth or on iss

371

00:15:53,990 --> 00:15:52,160

and is there a fat an effect on your

372

00:15:58,550 --> 00:15:54,000

microbiome and would you are you

373

00:16:03,350 --> 00:16:00,310

yeah so one of the the studies we're

374

00:16:05,590 --> 00:16:03,360

doing uh with my brother is a microbiome

375

00:16:07,269 --> 00:16:05,600

study how the mic your microbiome

376

00:16:09,509 --> 00:16:07,279

changes in the microbiome for people

377

00:16:11,670 --> 00:16:09,519

that might not be familiar with it is

378

00:16:14,150 --> 00:16:11,680

you know all this bacteria that resides

379

00:16:15,990 --> 00:16:14,160

within your digestive system

380

00:16:18,150 --> 00:16:16,000

and apparently from what i understand

381

00:16:21,189 --> 00:16:18,160

there's more of those cells

382

00:16:23,509 --> 00:16:21,199

that aren't you than there are of your

383

00:16:25,829 --> 00:16:23,519

own human cells so

384

00:16:26,949 --> 00:16:25,839

it's uh you know it's critical to our

385

00:16:30,550 --> 00:16:26,959

our

386

00:16:32,949 --> 00:16:30,560

it does change

387

00:16:36,069 --> 00:16:32,959

when uh when we're in space

388

00:16:39,189 --> 00:16:36,079

um and we're comparing that you know my

389

00:16:41,189 --> 00:16:39,199

the changes in in my microbiome with my

390

00:16:43,509 --> 00:16:41,199

brothers over over the period of time

391

00:16:45,110 --> 00:16:43,519

that we're here um and

392

00:16:47,509 --> 00:16:45,120

as getting back to the first part of

393

00:16:50,470 --> 00:16:47,519

your question about infections

394

00:16:52,069 --> 00:16:50,480

our immune system generally is depressed

395

00:16:53,749 --> 00:16:52,079

up here for

396

00:16:55,990 --> 00:16:53,759

you know i'm not sure why maybe someone

397

00:16:57,350 --> 00:16:56,000

knows exactly why but we actually are

398

00:16:58,069 --> 00:16:57,360

studying that

399

00:17:01,910 --> 00:16:58,079

so

400

00:17:04,549 --> 00:17:01,920

would be uh

401  
00:17:06,309 --> 00:17:04,559  
you know a little bit more prone to

402  
00:17:08,630 --> 00:17:06,319  
certain types of infections things that

403  
00:17:10,630 --> 00:17:08,640  
we have on board here that can

404  
00:17:13,429 --> 00:17:10,640  
infect you but for instance you know

405  
00:17:15,189 --> 00:17:13,439  
there's no uh cold virus up here the flu

406  
00:17:18,549 --> 00:17:15,199  
virus things like that

407  
00:17:20,150 --> 00:17:18,559  
um certain types of bacteria we

408  
00:17:21,750 --> 00:17:20,160  
don't have them on the space station

409  
00:17:24,150 --> 00:17:21,760  
therefore you know people generally

410  
00:17:28,150 --> 00:17:24,160  
don't get get sick like you might on

411  
00:17:30,310 --> 00:17:28,160  
earth at least not uh not very often

412  
00:17:33,190 --> 00:17:30,320  
all right scott thank you very much for

413  
00:17:37,190 --> 00:17:33,200

taking time to be with us today and good

414

00:17:46,310 --> 00:17:39,669

yeah my pleasure uh thank you and it was

415

00:17:51,750 --> 00:17:48,230

this is houston acr

416

00:17:54,390 --> 00:17:51,760

thank you that concludes our event

417

00:17:56,390 --> 00:17:54,400

and thank you ktrk tv and prize science