



1
00:00:07,590 --> 00:00:03,750
station this is houston are you ready

2
00:00:12,230 --> 00:00:09,750
houston this is station we're ready for

3
00:00:15,990 --> 00:00:13,990
kennedy space center this is mission

4
00:00:19,990 --> 00:00:16,000
control houston please call station for

5
00:00:27,670 --> 00:00:21,990
station this is my curie at the kennedy

6
00:00:34,310 --> 00:00:29,910
mike it's fantastic to talk to you today

7
00:00:37,670 --> 00:00:35,670
thank you chris we're going to turn

8
00:00:40,150 --> 00:00:37,680
things over now to uh florida today

9
00:00:45,670 --> 00:00:40,160
senior aerospace reporter todd halverson

10
00:00:50,150 --> 00:00:48,310
usa today and gannett company

11
00:00:52,869 --> 00:00:50,160
are banding together with the florida

12
00:00:55,189 --> 00:00:52,879
institute of technology

13
00:00:58,630 --> 00:00:55,199

to study the effects of

14

00:01:02,150 --> 00:00:58,640

long-term space flight on astronauts

15

00:01:04,950 --> 00:01:02,160

countermeasures being developed for

16

00:01:07,350 --> 00:01:04,960

combating those adverse effects and how

17

00:01:09,830 --> 00:01:07,360

real people on earth might benefit let

18

00:01:23,190 --> 00:01:09,840

me get right to the students for

19

00:01:28,469 --> 00:01:25,670

how has your background as an

20

00:01:30,149 --> 00:01:28,479

as part of the us navy seal team help

21

00:01:36,950 --> 00:01:30,159

you with your

22

00:01:41,109 --> 00:01:38,630

that's a great question in a number of

23

00:01:43,350 --> 00:01:41,119

ways all of us have different uh variety

24

00:01:45,670 --> 00:01:43,360

of backgrounds as

25

00:01:47,590 --> 00:01:45,680

as we come into the space program and uh

26

00:01:49,510 --> 00:01:47,600

as you mentioned i'm from the military

27

00:01:51,830 --> 00:01:49,520

and the navy seal teams and what i

28

00:01:54,230 --> 00:01:51,840

really brought with me uh from that

29

00:01:55,749 --> 00:01:54,240

experience is teamwork how to be a good

30

00:01:57,990 --> 00:01:55,759

team player

31

00:02:00,230 --> 00:01:58,000

and be part of a small unit a small

32

00:02:01,670 --> 00:02:00,240

group of folks accomplishing a specific

33

00:02:05,350 --> 00:02:01,680

mission and that's exactly what we're

34

00:02:06,870 --> 00:02:05,360

doing uh here in the space program and

35

00:02:09,350 --> 00:02:06,880

and then more along the lines of what

36

00:02:10,229 --> 00:02:09,360

you're studying the physical aspect of

37

00:02:13,589 --> 00:02:10,239

it

38

00:02:15,589 --> 00:02:13,599

physical training in the seal teams and

39

00:02:17,190 --> 00:02:15,599

that's very very important

40

00:02:19,190 --> 00:02:17,200

when we're up here in the space station

41

00:02:20,790 --> 00:02:19,200

to keep our bodies not only healthy

42

00:02:22,710 --> 00:02:20,800

while we're here but more importantly so

43

00:02:23,910 --> 00:02:22,720

that we can return safely and not have

44

00:02:25,589 --> 00:02:23,920

too big of a

45

00:02:28,150 --> 00:02:25,599

hill to overcome when we get back on the

46

00:02:34,710 --> 00:02:30,229

okay thank you

47

00:02:38,710 --> 00:02:36,710

does being in space have the same

48

00:02:44,150 --> 00:02:38,720

effects of cabin fever in terms of

49

00:02:48,150 --> 00:02:47,030

well that's an interesting uh thought i

50

00:02:50,150 --> 00:02:48,160

i think

51
00:02:51,990 --> 00:02:50,160
that if you're here for a really long

52
00:02:52,869 --> 00:02:52,000
time with with no

53
00:02:56,150 --> 00:02:52,879
goal

54
00:02:58,550 --> 00:02:56,160
um no end in mind then it could you

55
00:03:01,030 --> 00:02:58,560
could really uh

56
00:03:02,070 --> 00:03:01,040
be cautious about cabin fever type type

57
00:03:05,110 --> 00:03:02,080
of stress

58
00:03:07,430 --> 00:03:05,120
up here uh what we're doing i haven't

59
00:03:08,630 --> 00:03:07,440
had the hint a hint of that we're busy

60
00:03:11,270 --> 00:03:08,640
every day i feel like we're

61
00:03:13,750 --> 00:03:11,280
accomplishing great science uh

62
00:03:15,750 --> 00:03:13,760
every day and also uh contributing to

63
00:03:18,949 --> 00:03:15,760

the maintenance of the space station uh

64

00:03:21,430 --> 00:03:18,959

on a daily or weekly basis and

65

00:03:23,990 --> 00:03:21,440

and just the social aspect of being with

66

00:03:25,670 --> 00:03:24,000

my two russian colleagues right now and

67

00:03:28,149 --> 00:03:25,680

then in just a short week we'll have

68

00:03:30,869 --> 00:03:28,159

three other folks arrive and being part

69

00:03:33,509 --> 00:03:30,879

of that crew and sharing meals together

70

00:03:35,750 --> 00:03:33,519

and looking out the window together it

71

00:03:38,470 --> 00:03:35,760

just for me has i haven't had a hint of

72

00:03:41,030 --> 00:03:38,480

cabin fever yet now if you were going to

73

00:03:42,550 --> 00:03:41,040

to practice for a mars mission and not

74

00:03:44,149 --> 00:03:42,560

go to mars

75

00:03:45,990 --> 00:03:44,159

i think that would be hard that would be

76

00:03:47,830 --> 00:03:46,000

really challenging thing to overcome

77

00:03:49,830 --> 00:03:47,840

psychologically but if you're going to

78

00:03:58,869 --> 00:03:49,840

mars and you knew mars was at the end

79

00:04:02,949 --> 00:04:00,630

i'm monica de feliz

80

00:04:04,949 --> 00:04:02,959

my question is studies show that daily

81

00:04:06,710 --> 00:04:04,959

supplements are important in protecting

82

00:04:07,910 --> 00:04:06,720

astronauts from the effects of radiation

83

00:04:09,190 --> 00:04:07,920

absorption

84

00:04:11,350 --> 00:04:09,200

do you have such a

85

00:04:16,469 --> 00:04:11,360

regime and what daily supplements do you

86

00:04:20,710 --> 00:04:19,430

well my answer is kind of boring uh i

87

00:04:22,950 --> 00:04:20,720

really just take

88

00:04:25,510 --> 00:04:22,960

a multivitamin type of thing and then

89

00:04:26,310 --> 00:04:25,520

vita vitamin d

90

00:04:29,670 --> 00:04:26,320

and

91

00:04:31,670 --> 00:04:29,680

that's all that's all my my uh

92

00:04:35,030 --> 00:04:31,680

vitamin regime really is

93

00:04:36,550 --> 00:04:35,040

now uh maybe over the course of of the

94

00:04:39,110 --> 00:04:36,560

we are

95

00:04:41,189 --> 00:04:39,120

studies of this type of nature and maybe

96

00:04:43,430 --> 00:04:41,199

with your research that you're doing

97

00:04:45,749 --> 00:04:43,440

will learn that well we can do better

98

00:04:47,909 --> 00:04:45,759

than that but for now that's uh that's

99

00:04:50,390 --> 00:04:47,919

what i'm doing and then

100

00:04:52,629 --> 00:04:50,400

we in our sleeping quarters we have some

101
00:04:55,510 --> 00:04:52,639
panels around the edge that'll help

102
00:04:57,270 --> 00:04:55,520
mitigate the effects of radiation

103
00:04:59,189 --> 00:04:57,280
and that sort of thing but in terms of

104
00:05:07,350 --> 00:04:59,199
specific oral

105
00:05:12,150 --> 00:05:08,830
i'm john

106
00:05:13,510 --> 00:05:12,160
alemacy does nasa issue magnifying

107
00:05:15,270 --> 00:05:13,520
glasses

108
00:05:16,790 --> 00:05:15,280
so that you can visually complete the

109
00:05:19,350 --> 00:05:16,800
mission or

110
00:05:21,189 --> 00:05:19,360
has nasa come up with a new carbon

111
00:05:28,230 --> 00:05:21,199
dioxide scrubber

112
00:05:30,390 --> 00:05:29,110
uh

113
00:05:31,350 --> 00:05:30,400

john

114

00:05:33,510 --> 00:05:31,360

we do

115

00:05:35,110 --> 00:05:33,520

see the eye doctor extensively prior to

116

00:05:37,110 --> 00:05:35,120

flight and we

117

00:05:39,270 --> 00:05:37,120

that's obvious that is to correct any

118

00:05:42,070 --> 00:05:39,280

vision issues that we have at that time

119

00:05:44,870 --> 00:05:42,080

but also to think ahead about what might

120

00:05:46,230 --> 00:05:44,880

uh be the effects of our long our six

121

00:05:48,550 --> 00:05:46,240

months in space and how that might

122

00:05:51,830 --> 00:05:48,560

affect our eyes and we are

123

00:05:53,430 --> 00:05:51,840

given a few options for

124

00:05:55,270 --> 00:05:53,440

eyewear

125

00:05:58,469 --> 00:05:55,280

in the event that we have a degradation

126

00:06:00,390 --> 00:05:58,479

in our in our in our eyesight

127

00:06:02,309 --> 00:06:00,400

now your second the second part of your

128

00:06:04,469 --> 00:06:02,319

question is

129

00:06:07,110 --> 00:06:04,479

a new carbon dioxide scrubber and to my

130

00:06:09,189 --> 00:06:07,120

knowledge it's just the same same one i

131

00:06:11,189 --> 00:06:09,199

mean it is the same one we have

132

00:06:13,510 --> 00:06:11,199

have had that is currently working right

133

00:06:15,830 --> 00:06:13,520

now to my knowledge there i don't think

134

00:06:17,510 --> 00:06:15,840

that uh there is anything in work to

135

00:06:19,110 --> 00:06:17,520

replace the one that we have on board

136

00:06:20,710 --> 00:06:19,120

the space station

137

00:06:23,510 --> 00:06:20,720

but that's an interesting thought that

138

00:06:27,029 --> 00:06:25,270

i'd be curious to hear the results of

139

00:06:35,590 --> 00:06:27,039

your research as you progress further

140

00:06:39,990 --> 00:06:38,070

hello my name is brooke fisher and my

141

00:06:42,390 --> 00:06:40,000

question is what do you do to prevent

142

00:06:45,189 --> 00:06:42,400

bone loss for example is there a

143

00:06:47,270 --> 00:06:45,199

specific exercise regimen that you

144

00:06:49,990 --> 00:06:47,280

have to have prior to the launch and is

145

00:06:51,670 --> 00:06:50,000

there any kind of regimen during

146

00:06:56,629 --> 00:06:51,680

while you're in space to help avoid

147

00:07:02,629 --> 00:06:58,950

yeah like you mentioned exercise is the

148

00:07:04,390 --> 00:07:02,639

number one thing we can do uh to prevent

149

00:07:06,070 --> 00:07:04,400

bone loss and i think that's important

150

00:07:08,710 --> 00:07:06,080

for folks on earth to know as well

151

00:07:11,510 --> 00:07:08,720

because as we age uh bone

152

00:07:13,189 --> 00:07:11,520

density uh loss is a is a problem and

153

00:07:16,390 --> 00:07:13,199

that's how people when they when they're

154

00:07:18,150 --> 00:07:16,400

elderly fall down and and can hurt a a

155

00:07:19,990 --> 00:07:18,160

hip or some major bone and have a really

156

00:07:20,790 --> 00:07:20,000

hard time overcoming that

157

00:07:23,350 --> 00:07:20,800

uh

158

00:07:25,670 --> 00:07:23,360

a lifelong regime of of load-bearing

159

00:07:28,950 --> 00:07:25,680

exercises i think is a great thing and

160

00:07:31,430 --> 00:07:28,960

how does that relate to us we do just

161

00:07:33,350 --> 00:07:31,440

that up here while we're in space

162

00:07:34,790 --> 00:07:33,360

we have some astronaut strength and

163

00:07:37,589 --> 00:07:34,800

conditioning coaches on the ground that

164

00:07:38,950 --> 00:07:37,599

provide us with the particular regime

165

00:07:40,710 --> 00:07:38,960

that you're talking about and really

166

00:07:42,550 --> 00:07:40,720

what it boils down to

167

00:07:45,189 --> 00:07:42,560

are

168

00:07:47,029 --> 00:07:45,199

large muscle large muscle groups like

169

00:07:49,670 --> 00:07:47,039

your hips and your lower back and your

170

00:07:51,830 --> 00:07:49,680

thighs really working those every single

171

00:07:53,110 --> 00:07:51,840

day every single day we do some type of

172

00:07:54,469 --> 00:07:53,120

squat

173

00:07:57,110 --> 00:07:54,479

and deadlift

174

00:08:00,309 --> 00:07:57,120

the upper body stuff we do as well but

175

00:08:02,309 --> 00:08:00,319

that's not so critical uh

176

00:08:04,869 --> 00:08:02,319

it turns out the really important areas

177

00:08:06,790 --> 00:08:04,879

to target are your hips and legs and

178

00:08:09,749 --> 00:08:06,800

that's that's the focus of every time i

179

00:08:11,670 --> 00:08:09,759

get on the machine that we use

180

00:08:13,749 --> 00:08:11,680

i don't need to go into specifics of

181

00:08:15,510 --> 00:08:13,759

what what it is but it's nothing exotic

182

00:08:17,350 --> 00:08:15,520

you know a couple sets of of all those

183

00:08:19,029 --> 00:08:17,360

exercises every single day and we will

184

00:08:21,749 --> 00:08:19,039

vary the weight throughout the course of

185

00:08:23,749 --> 00:08:21,759

the mission to uh peak at certain levels

186

00:08:25,350 --> 00:08:23,759

and then recover for a little a few

187

00:08:27,110 --> 00:08:25,360

weeks and then peak right towards the

188

00:08:28,869 --> 00:08:27,120

end as we're stepping out of the rocket

189

00:08:30,390 --> 00:08:28,879

back on the planet so that's the that's

190

00:08:31,909 --> 00:08:30,400

the goal

191

00:08:34,070 --> 00:08:31,919

it's really effective though because i

192

00:08:38,149 --> 00:08:34,080

feel myself uh

193

00:08:38,159 --> 00:08:42,070

thank you

194

00:08:47,030 --> 00:08:44,550

hi my name is laura fitzsimmons

195

00:08:48,790 --> 00:08:47,040

have you personally noticed any changes

196

00:08:51,350 --> 00:08:48,800

within your voluntary muscles for

197

00:08:52,710 --> 00:08:51,360

example your arms or legs if so what

198

00:08:59,910 --> 00:08:52,720

were these changes and how did they

199

00:09:03,670 --> 00:09:01,910

um you know that's a that's a good

200

00:09:05,670 --> 00:09:03,680

question uh

201
00:09:07,910 --> 00:09:05,680
in the navy we had a saying that we

202
00:09:10,230 --> 00:09:07,920
called the gym the small arms repair

203
00:09:12,470 --> 00:09:10,240
locker and you could sort of joke around

204
00:09:14,070 --> 00:09:12,480
that up here it's the same thing we can

205
00:09:15,590 --> 00:09:14,080
call our node three the small arms

206
00:09:18,070 --> 00:09:15,600
repair locker because we get on that

207
00:09:20,470 --> 00:09:18,080
machine every single day but uh that's

208
00:09:22,470 --> 00:09:20,480
sort of that's i'm joking of course but

209
00:09:26,070 --> 00:09:22,480
i haven't noticed any

210
00:09:28,710 --> 00:09:26,080
change in myself other than i i actually

211
00:09:31,190 --> 00:09:28,720
can feel that i'm stronger in the

212
00:09:32,790 --> 00:09:31,200
the exercises that i just referred to

213
00:09:35,430 --> 00:09:32,800

squats and those types of things because

214

00:09:37,190 --> 00:09:35,440

we're doing them every single day um you

215

00:09:39,269 --> 00:09:37,200

know now take away the fact that we're

216

00:09:41,030 --> 00:09:39,279

not walking around and just to get to

217

00:09:43,590 --> 00:09:41,040

the room that you're in you're you guys

218

00:09:45,430 --> 00:09:43,600

are exercising your legs uh to get there

219

00:09:46,870 --> 00:09:45,440

and we don't have that and that's one

220

00:09:49,430 --> 00:09:46,880

thing that we need to substitute with

221

00:09:50,630 --> 00:09:49,440

the machine so so uh

222

00:09:52,230 --> 00:09:50,640

really to answer your question i'm sort

223

00:09:55,350 --> 00:09:52,240

of tap dancing around it but the one

224

00:09:58,630 --> 00:09:55,360

thing if anything i have noticed is um

225

00:09:59,910 --> 00:09:58,640

that my legs my calf muscles are tighter

226

00:10:01,590 --> 00:09:59,920

and

227

00:10:04,150 --> 00:10:01,600

i need to concentrate on stretching

228

00:10:06,790 --> 00:10:04,160

those leg muscles out before i run

229

00:10:13,910 --> 00:10:06,800

otherwise i can get really kind of sore

230

00:10:20,310 --> 00:10:16,069

hi my name is william grimaldi and my

231

00:10:30,150 --> 00:10:22,389

with those exercises

232

00:10:33,990 --> 00:10:31,910

no not really the only the only

233

00:10:36,069 --> 00:10:34,000

breathing challenge uh is from

234

00:10:36,790 --> 00:10:36,079

exercising really really hard and we

235

00:10:41,350 --> 00:10:36,800

have

236

00:10:43,509 --> 00:10:41,360

just like the treadmill there on earth

237

00:10:46,949 --> 00:10:43,519

and and we can vary the speed and and

238

00:10:49,990 --> 00:10:46,959

all but also vary the load that we that

239

00:10:51,190 --> 00:10:50,000

we put on the system uh on on earth when

240

00:10:52,790 --> 00:10:51,200

you get on a treadmill you're just

241

00:10:57,269 --> 00:10:52,800

running with your body weight up here we

242

00:10:59,829 --> 00:10:57,279

can do less or equal not really more but

243

00:11:03,269 --> 00:10:59,839

in somewhere in between and then we also

244

00:11:05,110 --> 00:11:03,279

have a bicycle called the sevis and

245

00:11:08,230 --> 00:11:05,120

that is a really really challenging

246

00:11:10,870 --> 00:11:08,240

device to use i find in on 30 minutes on

247

00:11:13,750 --> 00:11:10,880

our onboard bicycle my heart rate is

248

00:11:15,030 --> 00:11:13,760

really high and i'm dripping with sweat

249

00:11:16,790 --> 00:11:15,040

and that's the only time i have a hard

250

00:11:18,870 --> 00:11:16,800

time breathing is when my heart rate

251

00:11:21,269 --> 00:11:18,880

gets to its maximum level and

252

00:11:24,389 --> 00:11:21,279

and the strength coaches make me do this

253

00:11:25,990 --> 00:11:24,399

program but i i enjoy it because it i

254

00:11:33,670 --> 00:11:26,000

can feel that i'm staying healthy while

255

00:11:38,150 --> 00:11:36,069

hello my name is kimberly shafer

256

00:11:40,870 --> 00:11:38,160

has your immune system been affected

257

00:11:43,350 --> 00:11:40,880

during or after space flat flight for

258

00:11:49,350 --> 00:11:43,360

instance have you gotten a cold and what

259

00:11:53,030 --> 00:11:50,949

that's a it's an interesting question

260

00:11:55,509 --> 00:11:53,040

for me to think about because i have had

261

00:11:58,230 --> 00:11:55,519

i have noticed i've been up here maybe

262

00:11:59,910 --> 00:11:58,240

two months i forget exactly but um

263

00:12:03,030 --> 00:11:59,920

there's been periods where my head has

264

00:12:04,069 --> 00:12:03,040

been a little stuffed up and it feels

265

00:12:06,550 --> 00:12:04,079

the same

266

00:12:09,829 --> 00:12:06,560

as a small

267

00:12:11,829 --> 00:12:09,839

cold type symptoms they have on earth

268

00:12:13,829 --> 00:12:11,839

but i don't know if it's from fluid

269

00:12:16,389 --> 00:12:13,839

shift and just fluid moving up into

270

00:12:18,310 --> 00:12:16,399

different parts in my sinus cavities or

271

00:12:19,190 --> 00:12:18,320

if it actually is a cold as you

272

00:12:21,110 --> 00:12:19,200

mentioned

273

00:12:23,190 --> 00:12:21,120

some type of immune thing it's pretty

274

00:12:24,550 --> 00:12:23,200

clean up here and we have really great

275

00:12:25,670 --> 00:12:24,560

filters in all the air conditioning

276

00:12:27,670 --> 00:12:25,680

system in the whole throughout the air

277

00:12:29,990 --> 00:12:27,680

conditioning system

278

00:12:33,350 --> 00:12:30,000

so it's hard for me to imagine that that

279

00:12:34,310 --> 00:12:33,360

uh i several times i've gotten a flu or

280

00:12:35,990 --> 00:12:34,320

cold

281

00:12:38,310 --> 00:12:36,000

i i think it's more along the lines of

282

00:12:39,910 --> 00:12:38,320

just fluid type shifting so i don't know

283

00:12:42,150 --> 00:12:39,920

i'm not a medical doctor but that is

284

00:12:44,310 --> 00:12:42,160

definitely an interesting question and

285

00:12:46,310 --> 00:12:44,320

and at times you need to keep a box of

286

00:12:52,949 --> 00:12:46,320

kleenex in your sleeping quarters to

287

00:12:57,350 --> 00:12:55,110

hi chris my name is jennifer nesmith and

288

00:12:59,590 --> 00:12:57,360

my question is what's the best thing

289

00:13:01,509 --> 00:12:59,600

about being aboard the iss and what's

290

00:13:07,030 --> 00:13:01,519

the worst thing about being aboard the

291

00:13:11,430 --> 00:13:10,150

hard to say a worse thing

292

00:13:13,269 --> 00:13:11,440

i think you're going to pin me down and

293

00:13:17,750 --> 00:13:13,279

make me say something so i'll save that

294

00:13:19,350 --> 00:13:17,760

second the best thing i think is

295

00:13:20,870 --> 00:13:19,360

just like in life it's not the fun

296

00:13:23,509 --> 00:13:20,880

things that you do it's it's who you

297

00:13:25,350 --> 00:13:23,519

experience those things with

298

00:13:27,110 --> 00:13:25,360

we have our families and our colleagues

299

00:13:29,110 --> 00:13:27,120

at work on the ground that we

300

00:13:31,750 --> 00:13:29,120

share things with and up here i'm

301
00:13:34,470 --> 00:13:31,760
sharing uh these special times with my

302
00:13:36,629 --> 00:13:34,480
crew members so uh

303
00:13:39,189 --> 00:13:36,639
with pavel and sasha and the soyuz ride

304
00:13:41,430 --> 00:13:39,199
to get here and with chris and tom and

305
00:13:43,350 --> 00:13:41,440
rahman in addition to pablo and sasha

306
00:13:45,350 --> 00:13:43,360
for the last couple months the times

307
00:13:47,670 --> 00:13:45,360
that we have had will be memories that

308
00:13:49,829 --> 00:13:47,680
i'll have forever and when karen and

309
00:13:51,990 --> 00:13:49,839
luca and fyodor arrive next week

310
00:13:53,829 --> 00:13:52,000
it that will continue so that is the

311
00:13:55,990 --> 00:13:53,839
number one thing a close second is

312
00:13:57,750 --> 00:13:56,000
looking out the window but uh you just

313
00:13:59,030 --> 00:13:57,760

can't beat the whole experience with

314

00:14:00,150 --> 00:13:59,040

wonderful people

315

00:14:03,670 --> 00:14:00,160

and uh

316

00:14:05,670 --> 00:14:03,680

the worst thing gosh that's hard because

317

00:14:08,069 --> 00:14:05,680

i i am enjoying this whole experience

318

00:14:09,910 --> 00:14:08,079

but i if you made me say i would

319

00:14:11,269 --> 00:14:09,920

probably say that there's a timeline

320

00:14:13,509 --> 00:14:11,279

that we follow every day and there's a

321

00:14:16,069 --> 00:14:13,519

little red line that represents the real

322

00:14:19,350 --> 00:14:16,079

time and we have a bunch of jobs to do

323

00:14:21,110 --> 00:14:19,360

and uh and always thinking about uh how

324

00:14:25,350 --> 00:14:21,120

your day's going relative to what you

325

00:14:27,110 --> 00:14:25,360

need to be doing um is something that

326

00:14:29,030 --> 00:14:27,120

come when it comes to friday you're

327

00:14:30,389 --> 00:14:29,040

ready for the weekend so you can not

328

00:14:32,470 --> 00:14:30,399

quite have that a little bit less

329

00:14:33,829 --> 00:14:32,480

pressure on that timeline but even that

330

00:14:35,509 --> 00:14:33,839

none of those things are horrible it's

331

00:14:37,030 --> 00:14:35,519

just maybe that's the one thing that

332

00:14:38,550 --> 00:14:37,040

when you get back i get back on earth

333

00:14:40,949 --> 00:14:38,560

i'll be looking forward to not have to

334

00:14:46,310 --> 00:14:40,959

worry about making those time decisions

335

00:14:49,350 --> 00:14:47,509

man again

336

00:14:51,829 --> 00:14:49,360

what kinds of tests do you go through

337

00:14:53,990 --> 00:14:51,839

while in space what are you monitoring

338

00:14:59,430 --> 00:14:54,000

about yourself health health-wise and

339

00:15:04,069 --> 00:15:01,590

i think you said what type of tests do

340

00:15:06,710 --> 00:15:04,079

we undergo while i'm up here

341

00:15:10,790 --> 00:15:06,720

is that right

342

00:15:14,870 --> 00:15:13,430

okay sorry about that um

343

00:15:17,269 --> 00:15:14,880

so

344

00:15:19,670 --> 00:15:17,279

preflight we uh

345

00:15:21,990 --> 00:15:19,680

sign up for a particular suite of

346

00:15:24,069 --> 00:15:22,000

experiments and each person's different

347

00:15:26,470 --> 00:15:24,079

a different program and depends on the

348

00:15:29,590 --> 00:15:26,480

available time and the science

349

00:15:31,749 --> 00:15:29,600

needs at the time of your lunch

350

00:15:32,949 --> 00:15:31,759

for me i'm part of

351

00:15:51,350 --> 00:15:32,959

a

352

00:15:55,509 --> 00:15:51,360

times throughout throughout the mission

353

00:15:58,790 --> 00:15:55,519

and during though that time we monitor

354

00:16:00,470 --> 00:15:58,800

our urine ph and we take samples of that

355

00:16:02,550 --> 00:16:00,480

and also take samples of our blood and

356

00:16:04,949 --> 00:16:02,560

those get sent back down to the earth so

357

00:16:06,829 --> 00:16:04,959

so that's one form of tests

358

00:16:09,670 --> 00:16:06,839

additional to that

359

00:16:11,749 --> 00:16:09,680

um the use of

360

00:16:14,710 --> 00:16:11,759

ultrasound

361

00:16:17,350 --> 00:16:14,720

in a way to give information that we we

362

00:16:20,310 --> 00:16:17,360

typically get in america from mris with

363

00:16:23,430 --> 00:16:20,320

the implication being in in location

364

00:16:26,069 --> 00:16:23,440

remote locations and uh

365

00:16:28,069 --> 00:16:26,079

less fortunate countries as our own

366

00:16:30,629 --> 00:16:28,079

where you can't get to an mri machine to

367

00:16:33,590 --> 00:16:30,639

diagnose a problem where you can pack in

368

00:16:36,790 --> 00:16:33,600

a suitcase of an ultrasound machine to

369

00:16:38,230 --> 00:16:36,800

help identify or or uh figure out a

370

00:16:40,150 --> 00:16:38,240

treatment for a certain problem that

371

00:16:42,069 --> 00:16:40,160

that a particular person is having so

372

00:16:44,310 --> 00:16:42,079

one part of that experiment as well

373

00:16:45,910 --> 00:16:44,320

where i'm a test subject as well as my

374

00:16:47,749 --> 00:16:45,920

other cremates for uh for this

375

00:16:49,749 --> 00:16:47,759

ultrasound and a few other ones but

376

00:16:51,350 --> 00:16:49,759

those are the things that that jump to

377

00:16:54,230 --> 00:16:51,360

mind right away as i answer your

378

00:16:54,240 --> 00:16:59,590

thank you

379

00:17:03,189 --> 00:17:01,350

my name is michael champion and my

380

00:17:04,789 --> 00:17:03,199

question is

381

00:17:07,270 --> 00:17:04,799

how long does it take to be in space

382

00:17:13,669 --> 00:17:07,280

before psychological stress occurs and

383

00:17:19,750 --> 00:17:15,909

well i think that depends person to

384

00:17:21,429 --> 00:17:19,760

person um and it can this is a

385

00:17:23,669 --> 00:17:21,439

roundabout answer because i don't have a

386

00:17:26,309 --> 00:17:23,679

definite one for you it depends person

387

00:17:27,829 --> 00:17:26,319

to person and the manifestation can be

388

00:17:29,830 --> 00:17:27,839

uh

389

00:17:32,950 --> 00:17:29,840

in different ways from small things like

390

00:17:35,510 --> 00:17:32,960

irritability or just the desire to

391

00:17:37,590 --> 00:17:35,520

not eat a meal with your crew mates for

392

00:17:40,390 --> 00:17:37,600

a particular day and just kind of be by

393

00:17:43,270 --> 00:17:40,400

yourself to maybe even a little bit

394

00:17:45,430 --> 00:17:43,280

cranky and snappy at the at the people

395

00:17:47,750 --> 00:17:45,440

on the radio or at your crewmates i

396

00:17:49,830 --> 00:17:47,760

haven't seen any of that yet

397

00:17:51,830 --> 00:17:49,840

but preflight when we talk about it with

398

00:17:53,590 --> 00:17:51,840

uh with our medical specialists those

399

00:17:55,510 --> 00:17:53,600

are the signs and symptoms that we're

400

00:17:57,350 --> 00:17:55,520

told to look out for so that more

401
00:18:00,230 --> 00:17:57,360
importantly than anything else we can

402
00:18:00,950 --> 00:18:00,240
monitor ourselves and we when we realize

403
00:18:06,950 --> 00:18:00,960
that

404
00:18:09,430 --> 00:18:06,960
of symptom coming we can back off or or

405
00:18:10,549 --> 00:18:09,440
call the ground and say hey i need a

406
00:18:12,950 --> 00:18:10,559
little bit

407
00:18:14,470 --> 00:18:12,960
of a reprieve today because you know

408
00:18:15,990 --> 00:18:14,480
whatever

409
00:18:19,110 --> 00:18:16,000
that that type of thing so really it's

410
00:18:21,270 --> 00:18:19,120
self self monitoring

411
00:18:24,070 --> 00:18:21,280
to be honest i i enjoy the company and

412
00:18:26,390 --> 00:18:24,080
my crewmates a lot and and look forward

413
00:18:28,549 --> 00:18:26,400

to those meals when we get together and

414

00:18:29,990 --> 00:18:28,559

can talk and laugh about what happened

415

00:18:31,830 --> 00:18:30,000

in the day or or

416

00:18:33,110 --> 00:18:31,840

talk about the plan for the upcoming

417

00:18:36,950 --> 00:18:33,120

days or weeks

418

00:18:40,310 --> 00:18:38,870

to give you a specific answer sorry for

419

00:18:42,230 --> 00:18:40,320

such a roundabout answer but it just

420

00:18:45,430 --> 00:18:42,240

depends so much on the person and the

421

00:18:45,440 --> 00:18:48,230

thank you

422

00:18:53,190 --> 00:18:50,150

commander cassidy i'm heidi hatfield

423

00:18:55,990 --> 00:18:53,200

edwards and on behalf of my students and

424

00:18:58,470 --> 00:18:56,000

the communication program at florida

425

00:19:00,549 --> 00:18:58,480

institute of technology thank you so

426

00:19:02,870 --> 00:19:00,559

much for answering our questions and

427

00:19:05,029 --> 00:19:02,880

being a part of this collaboration with

428

00:19:08,950 --> 00:19:05,039

florida today and usa today thank you so

429

00:19:13,029 --> 00:19:11,350

oh you're very welcome heidi hadfield

430

00:19:16,070 --> 00:19:13,039

and i you have a good last name because

431

00:19:18,470 --> 00:19:16,080

my class crewmate as you probably know

432

00:19:20,630 --> 00:19:18,480

was named chris hadfield so uh my

433

00:19:22,710 --> 00:19:20,640

pleasure to be with you today and

434

00:19:24,470 --> 00:19:22,720

hopefully i could help a little bit with

435

00:19:26,870 --> 00:19:24,480

what what you're studying

436

00:19:29,830 --> 00:19:26,880

it's a really interesting place and it's

437

00:19:33,669 --> 00:19:29,840

my desire to share all of it with all of

438

00:19:40,070 --> 00:19:36,470

station this is houston acr thank you

439

00:19:43,510 --> 00:19:41,350

thank you florida institute of

440

00:19:44,870 --> 00:19:43,520

technology in florida today station we