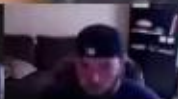


Google+



1
00:00:03,590 --> 00:00:01,750
thank you so much for joining us for

2
00:00:05,910 --> 00:00:03,600
this special hangout we've got some

3
00:00:07,510 --> 00:00:05,920
amazing guests with us and everybody has

4
00:00:09,990 --> 00:00:07,520
one thing in common their love and

5
00:00:12,629 --> 00:00:10,000
passion for sports and fitness um we

6
00:00:14,950 --> 00:00:12,639
have an amazing panel we have sam cass

7
00:00:17,990 --> 00:00:14,960
from the white house let's move campaign

8
00:00:21,029 --> 00:00:18,000
also peter moore with men's health

9
00:00:23,189 --> 00:00:21,039
we also have olympians rachel flatt who

10
00:00:24,470 --> 00:00:23,199
is a figure skater and bobsledder kurt

11
00:00:26,870 --> 00:00:24,480
tomasevich

12
00:00:29,029 --> 00:00:26,880
also joining us is two-time crossfit

13
00:00:31,669 --> 00:00:29,039

games champion rich fronding and our

14

00:00:33,350 --> 00:00:31,679

very own local houston texan jared crick

15

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

thank you all so much

16

00:00:37,190 --> 00:00:34,800

joining me here in the studio is

17

00:00:39,510 --> 00:00:37,200

astronaut mike hopkins and lead strength

18

00:00:41,110 --> 00:00:39,520

and conditioning coach mark williams so

19

00:00:42,310 --> 00:00:41,120

thanks again everyone this is going to

20

00:00:44,069 --> 00:00:42,320

be a great discussion i know we have a

21

00:00:45,910 --> 00:00:44,079

lot to cover i kind of wanted to start

22

00:00:47,830 --> 00:00:45,920

with you mike since this is a little bit

23

00:00:49,590 --> 00:00:47,840

triggered by your upcoming mission first

24

00:00:51,350 --> 00:00:49,600

time space flight flyer but why don't

25

00:00:53,270 --> 00:00:51,360

you just start by talking about um how

26
00:00:55,029 --> 00:00:53,280
you grew up being so active outdoors

27
00:00:57,510 --> 00:00:55,039
growing up in missouri yeah that sounds

28
00:00:59,910 --> 00:00:57,520
great so first of all i just want to say

29
00:01:03,110 --> 00:00:59,920
thanks to to all the folks the panel for

30
00:01:05,350 --> 00:01:03,120
uh for coming out here today um i'm

31
00:01:08,149 --> 00:01:05,360
really excited to to speak and to hear

32
00:01:10,070 --> 00:01:08,159
your stories and to share or hear about

33
00:01:11,830 --> 00:01:10,080
your experiences as well

34
00:01:14,710 --> 00:01:11,840
so actually all of you are very

35
00:01:17,109 --> 00:01:14,720
motivational to me and so i'm like i

36
00:01:19,109 --> 00:01:17,119
said i'm very excited about this um

37
00:01:21,350 --> 00:01:19,119
so just jumping right in you know sports

38
00:01:22,950 --> 00:01:21,360

has always been sports and athletics and

39

00:01:25,429 --> 00:01:22,960

staying fit has always been a big part

40

00:01:27,109 --> 00:01:25,439

of my life from from growing up whether

41

00:01:28,230 --> 00:01:27,119

it was playing on the farm or once i got

42

00:01:30,070 --> 00:01:28,240

into

43

00:01:32,469 --> 00:01:30,080

middle school and high school of playing

44

00:01:34,469 --> 00:01:32,479

on sports teams and then that i was very

45

00:01:35,830 --> 00:01:34,479

uh fortunate to be able to continue that

46

00:01:37,350 --> 00:01:35,840

into

47

00:01:39,190 --> 00:01:37,360

college and and being able to play

48

00:01:42,390 --> 00:01:39,200

football at the university of illinois

49

00:01:44,469 --> 00:01:42,400

and then from there i just it kept with

50

00:01:45,670 --> 00:01:44,479

me and so even throughout my career in

51

00:01:46,950 --> 00:01:45,680

the air force

52

00:01:49,190 --> 00:01:46,960

working out and staying fit and

53

00:01:51,429 --> 00:01:49,200

participating on intramural teams was

54

00:01:53,270 --> 00:01:51,439

was always important and then i got this

55

00:01:55,590 --> 00:01:53,280

wonderful opportunity to come to nasa

56

00:01:57,510 --> 00:01:55,600

and be an astronaut and and lo and

57

00:02:01,109 --> 00:01:57,520

behold physical fitness is a huge part

58

00:02:01,910 --> 00:02:01,119

of of our training and and what we do as

59

00:02:03,910 --> 00:02:01,920

well

60

00:02:06,310 --> 00:02:03,920

and so um

61

00:02:08,309 --> 00:02:06,320

so i'm just very excited to be able to

62

00:02:10,949 --> 00:02:08,319

share that that love and that passion of

63

00:02:13,190 --> 00:02:10,959

fitness and and how it applies to being

64

00:02:14,470 --> 00:02:13,200

an astronaut in life in space and and

65

00:02:17,030 --> 00:02:14,480

and hopefully

66

00:02:19,030 --> 00:02:17,040

get other people motivated about fitness

67

00:02:20,390 --> 00:02:19,040

as well and and maybe a little motivated

68

00:02:22,470 --> 00:02:20,400

about space

69

00:02:24,229 --> 00:02:22,480

so this is great just earlier today we

70

00:02:25,910 --> 00:02:24,239

kicked off um the train like an

71

00:02:28,150 --> 00:02:25,920

astronaut program which is actually part

72

00:02:29,910 --> 00:02:28,160

of the white house let's move campaign

73

00:02:32,390 --> 00:02:29,920

so sam maybe you want to talk a little

74

00:02:35,589 --> 00:02:32,400

more about that initiative which also

75

00:02:36,949 --> 00:02:35,599

strives to encourage kids to be active

76

00:02:38,550 --> 00:02:36,959

uh you know everybody wants to train

77

00:02:41,190 --> 00:02:38,560

like an astronaut right

78

00:02:42,630 --> 00:02:41,200

uh no better way to train so uh thanks

79

00:02:44,710 --> 00:02:42,640

for having me we're so excited to be

80

00:02:46,550 --> 00:02:44,720

here today um you know our physical

81

00:02:48,470 --> 00:02:46,560

fitness is one of the

82

00:02:50,070 --> 00:02:48,480

greatest indicators of our health and

83

00:02:51,670 --> 00:02:50,080

the lack of physical activity in our

84

00:02:54,229 --> 00:02:51,680

daily lives is

85

00:02:55,670 --> 00:02:54,239

you know has been a real uh taking a

86

00:02:58,309 --> 00:02:55,680

real toll on the health and well-being

87

00:02:59,910 --> 00:02:58,319

of our of our children and so the first

88

00:03:01,990 --> 00:02:59,920

lady's really calling everybody coming

89

00:03:03,190 --> 00:03:02,000

together uniting around our kids health

90

00:03:04,869 --> 00:03:03,200

and well-being and sure they're getting

91

00:03:07,270 --> 00:03:04,879

the healthy food that they need

92

00:03:09,270 --> 00:03:07,280

and the activity that they need to

93

00:03:11,910 --> 00:03:09,280

to thrive and hopefully

94

00:03:13,350 --> 00:03:11,920

one day become an astronaut and and

95

00:03:15,509 --> 00:03:13,360

we're seeing great progress we've

96

00:03:17,110 --> 00:03:15,519

launched a lot of programs in in schools

97

00:03:18,790 --> 00:03:17,120

let's go back to schools program to

98

00:03:21,190 --> 00:03:18,800

really make sure our schools are

99

00:03:22,790 --> 00:03:21,200

facilitating kids being active

100

00:03:25,430 --> 00:03:22,800

but we know we got to get our kids

101
00:03:27,270 --> 00:03:25,440
moving i'm a lifelong athlete and

102
00:03:30,149 --> 00:03:27,280
so i've seen it in my life we see it in

103
00:03:31,990 --> 00:03:30,159
kids across the country about what not

104
00:03:33,589 --> 00:03:32,000
just athletics but also just being

105
00:03:34,789 --> 00:03:33,599
active can do

106
00:03:36,390 --> 00:03:34,799
not only for their physical health but

107
00:03:39,270 --> 00:03:36,400
also their mental and we know that our

108
00:03:40,390 --> 00:03:39,280
kids perform better on math tests and

109
00:03:42,149 --> 00:03:40,400
reading comprehensions if they're

110
00:03:43,990 --> 00:03:42,159
getting the activity that they need

111
00:03:45,270 --> 00:03:44,000
so i'm so excited to be here i can't

112
00:03:46,789 --> 00:03:45,280
wait to your questions and ask some

113
00:03:48,789 --> 00:03:46,799

questions i will say i have to admit

114

00:03:51,190 --> 00:03:48,799

that i have a savings account that one

115

00:03:53,190 --> 00:03:51,200

day hopefully will get me to outer space

116

00:03:55,350 --> 00:03:53,200

it's my greatest dream

117

00:03:57,429 --> 00:03:55,360

in life and so i don't know maybe if you

118

00:03:59,030 --> 00:03:57,439

got an extra seat i could uh hop on

119

00:04:01,110 --> 00:03:59,040

board for your next mission i'll work

120

00:04:04,390 --> 00:04:01,120

out i'll do whatever you want me to do

121

00:04:05,750 --> 00:04:04,400

uh but yeah it's great to be here

122

00:04:06,949 --> 00:04:05,760

maybe we should have added that as an

123

00:04:09,429 --> 00:04:06,959

incentive for the train like an

124

00:04:11,270 --> 00:04:09,439

astronaut program free ride the soyuz is

125

00:04:12,710 --> 00:04:11,280

pretty tight

126

00:04:14,550 --> 00:04:12,720

there's not a lot of extra room in it

127

00:04:16,229 --> 00:04:14,560

even for the three of us that that are

128

00:04:17,990 --> 00:04:16,239

planned to go up so i'm not sure if we

129

00:04:19,749 --> 00:04:18,000

can find room for you on this one but

130

00:04:21,670 --> 00:04:19,759

maybe in the future when we have some

131

00:04:22,950 --> 00:04:21,680

commercial vehicles going up there'll be

132

00:04:25,030 --> 00:04:22,960

an opportunity

133

00:04:27,270 --> 00:04:25,040

all right all right i'll work out i'll

134

00:04:28,629 --> 00:04:27,280

train like an astronaut until then that

135

00:04:30,469 --> 00:04:28,639

sounds great

136

00:04:32,310 --> 00:04:30,479

um so you touched on a couple points i

137

00:04:34,790 --> 00:04:32,320

know peter you also i think are very

138

00:04:36,550 --> 00:04:34,800

athletic and childhood obesity has been

139

00:04:38,070 --> 00:04:36,560

kind of a special issue for you too you

140

00:04:39,990 --> 00:04:38,080

kind of focused on that earlier in your

141

00:04:41,510 --> 00:04:40,000

career maybe you could jump in and talk

142

00:04:43,430 --> 00:04:41,520

a little bit about that as well hey i

143

00:04:45,430 --> 00:04:43,440

want to address something first though

144

00:04:48,070 --> 00:04:45,440

sam katz told us that his dream was

145

00:04:49,590 --> 00:04:48,080

always to be in men's health magazine uh

146

00:04:50,950 --> 00:04:49,600

rather than about how he wanted to go

147

00:04:52,230 --> 00:04:50,960

into skype

148

00:04:55,350 --> 00:04:52,240

so i don't know what the heck is with

149

00:04:57,110 --> 00:04:55,360

that sam i'm a little offended

150

00:04:59,670 --> 00:04:57,120

but he did a great job we also had this

151

00:05:01,110 --> 00:04:59,680

guy in the magazine not bad

152

00:05:02,469 --> 00:05:01,120

talking about health care which was

153

00:05:04,310 --> 00:05:02,479

pretty awesome

154

00:05:06,790 --> 00:05:04,320

but yeah i've done a lot of work on

155

00:05:09,029 --> 00:05:06,800

childhood obesity uh in men's health in

156

00:05:11,270 --> 00:05:09,039

part because about half of the guys who

157

00:05:13,510 --> 00:05:11,280

subscribe to men's health their dads and

158

00:05:15,749 --> 00:05:13,520

you know we really are uh in kind of an

159

00:05:17,670 --> 00:05:15,759

unprecedented moment in the health of

160

00:05:19,909 --> 00:05:17,680

our kids right now because so many of

161

00:05:21,189 --> 00:05:19,919

the adult diseases that we think of as

162

00:05:22,390 --> 00:05:21,199

you know the things that will catch us

163

00:05:25,029 --> 00:05:22,400

when we're

164

00:05:27,990 --> 00:05:25,039

75 and 80 are actually affecting you

165

00:05:29,909 --> 00:05:28,000

know kids in their early teens um

166

00:05:33,270 --> 00:05:29,919

you know they used to call um

167

00:05:35,430 --> 00:05:33,280

type 2 diabetes adult onset diabetes

168

00:05:36,950 --> 00:05:35,440

because you had to be an adult basically

169

00:05:40,070 --> 00:05:36,960

to reach the point in your life where

170

00:05:41,830 --> 00:05:40,080

you could develop the uh the symptoms uh

171

00:05:44,870 --> 00:05:41,840

they don't do that anymore the adult

172

00:05:47,110 --> 00:05:44,880

onset thing has uh has gone away now now

173

00:05:49,990 --> 00:05:47,120

we call it type 2 diabetes because so

174

00:05:51,749 --> 00:05:50,000

many kids are suffering from it um you

175

00:05:52,390 --> 00:05:51,759

know i don't want to be a big downer

176

00:05:54,790 --> 00:05:52,400

here

177

00:05:56,550 --> 00:05:54,800

in fact the rates of obesity have

178

00:05:59,110 --> 00:05:56,560

leveled off now it shows we're doing

179

00:06:00,629 --> 00:05:59,120

some good work as a culture but clearly

180

00:06:02,950 --> 00:06:00,639

there's a lot more work that needs to be

181

00:06:05,510 --> 00:06:02,960

done and you know the first ladies uh

182

00:06:07,510 --> 00:06:05,520

let's move program is a great part of

183

00:06:10,710 --> 00:06:07,520

that but i guess that you know

184

00:06:13,749 --> 00:06:10,720

the last thing i would say is that

185

00:06:15,670 --> 00:06:13,759

really you know weight is a family issue

186

00:06:16,790 --> 00:06:15,680

it's not a matter of pointing fingers at

187

00:06:18,150 --> 00:06:16,800

kids and saying you know it looks like

188

00:06:19,430 --> 00:06:18,160

you're putting on a few you've got to

189

00:06:21,670 --> 00:06:19,440

take care of that

190

00:06:23,990 --> 00:06:21,680

really what's going to happen is that if

191

00:06:25,830 --> 00:06:24,000

if moms and dads and kids and families

192

00:06:28,309 --> 00:06:25,840

work on this stuff together both the

193

00:06:29,749 --> 00:06:28,319

food aspect and the exercise aspect

194

00:06:32,230 --> 00:06:29,759

that's where the real progress is going

195

00:06:35,189 --> 00:06:32,240

to be made and really who among us you

196

00:06:37,670 --> 00:06:35,199

know parents or kids uh can't afford to

197

00:06:39,510 --> 00:06:37,680

uh you know do a little bit better do a

198

00:06:41,189 --> 00:06:39,520

little bit more eat a little better and

199

00:06:43,749 --> 00:06:41,199

you know that's why i really applaud

200

00:06:45,189 --> 00:06:43,759

what the first lady is doing and and uh

201
00:06:47,350 --> 00:06:45,199
and probably sam's doing most of the

202
00:06:49,350 --> 00:06:47,360
work on that right sam

203
00:06:50,469 --> 00:06:49,360
you know i'm uh i'm i'm pulling my

204
00:06:52,710 --> 00:06:50,479
weight but

205
00:06:54,390 --> 00:06:52,720
i couldn't agree with the

206
00:06:55,990 --> 00:06:54,400
more with what you said and this is

207
00:06:58,870 --> 00:06:56,000
something that we have to address in the

208
00:07:00,390 --> 00:06:58,880
context of the entire family um and

209
00:07:02,309 --> 00:07:00,400
ensure that the family is getting the

210
00:07:04,710 --> 00:07:02,319
supports that they need to make the best

211
00:07:06,950 --> 00:07:04,720
choices so uh the stakes are high for

212
00:07:08,390 --> 00:07:06,960
our country but um i'm optimistic that

213
00:07:09,270 --> 00:07:08,400

we're on the right we're on the right

214

00:07:10,870 --> 00:07:09,280

track

215

00:07:12,230 --> 00:07:10,880

hey sam i don't know if this is an out

216

00:07:13,270 --> 00:07:12,240

of bounds question but i'll go ahead and

217

00:07:14,950 --> 00:07:13,280

ask it

218

00:07:17,909 --> 00:07:14,960

do you get a sense that the that the

219

00:07:19,510 --> 00:07:17,919

first family as busy as they are and you

220

00:07:21,830 --> 00:07:19,520

know jetting around the world and all

221

00:07:24,390 --> 00:07:21,840

the stuff that they have i mean do those

222

00:07:26,070 --> 00:07:24,400

obama girls have time to to work out too

223

00:07:27,029 --> 00:07:26,080

are they are they following dad's

224

00:07:29,909 --> 00:07:27,039

example

225

00:07:32,230 --> 00:07:29,919

oh absolutely one thing in this family

226

00:07:35,189 --> 00:07:32,240

is that you know they they practice what

227

00:07:36,309 --> 00:07:35,199

they preach uh both from what we eat to

228

00:07:38,790 --> 00:07:36,319

you know making sure we're getting

229

00:07:42,230 --> 00:07:38,800

plenty of activity uh you know the first

230

00:07:44,550 --> 00:07:42,240

lady we balance my plate style meals uh

231

00:07:45,350 --> 00:07:44,560

and uh but it's all about moderation so

232

00:07:47,430 --> 00:07:45,360

that

233

00:07:48,710 --> 00:07:47,440

after you know if you have a you know

234

00:07:50,230 --> 00:07:48,720

cheeseburger once in a while there's

235

00:07:51,350 --> 00:07:50,240

some pizza it's no big deal but day in

236

00:07:53,189 --> 00:07:51,360

and day out we're having fruits and

237

00:07:56,230 --> 00:07:53,199

vegetables and whole grains lean protein

238

00:07:58,309 --> 00:07:56,240

etc and yes they're they those girls get

239

00:08:00,950 --> 00:07:58,319

plenty of exercise uh doing all kinds of

240

00:08:03,430 --> 00:08:00,960

different activities in sports and so no

241

00:08:04,629 --> 00:08:03,440

there's no question uh they're walking

242

00:08:06,550 --> 00:08:04,639

the walk

243

00:08:08,390 --> 00:08:06,560

yeah i'm wondering now sasha is the

244

00:08:10,230 --> 00:08:08,400

older girl right

245

00:08:11,749 --> 00:08:10,240

malia is the older girl okay so last

246

00:08:13,350 --> 00:08:11,759

time i saw a picture of malia she looked

247

00:08:16,070 --> 00:08:13,360

like she's about as tall as her dad does

248

00:08:18,070 --> 00:08:16,080

she have a lefty layup like he does

249

00:08:19,990 --> 00:08:18,080

uh you know i can't i i'm not going to

250

00:08:21,990 --> 00:08:20,000

compare the layups i'm you know there's

251
00:08:23,749 --> 00:08:22,000
nothing good in that for me but uh but

252
00:08:26,390 --> 00:08:23,759
yeah they're a talented family all the

253
00:08:28,150 --> 00:08:26,400
way around

254
00:08:29,990 --> 00:08:28,160
cool

255
00:08:32,149 --> 00:08:30,000
okay well watching

256
00:08:33,990 --> 00:08:32,159
we managed to not have the nba player on

257
00:08:35,509 --> 00:08:34,000
here but i think we've got the whole

258
00:08:38,070 --> 00:08:35,519
full suite of other athletes so i want

259
00:08:39,589 --> 00:08:38,080
to definitely uh bring them in and

260
00:08:41,430 --> 00:08:39,599
speaking of diets i was kind of

261
00:08:43,350 --> 00:08:41,440
reviewing rich your background and i

262
00:08:44,550 --> 00:08:43,360
think you were pretty open about um

263
00:08:47,430 --> 00:08:44,560

you're really lucky you don't really

264

00:08:48,710 --> 00:08:47,440

stick to a strict diet regimen you have

265

00:08:50,070 --> 00:08:48,720

the privilege of being able to eat what

266

00:08:51,990 --> 00:08:50,080

you want can you talk to us a little bit

267

00:08:54,470 --> 00:08:52,000

about um the training you're in right

268

00:08:56,470 --> 00:08:54,480

now and how you keep healthy and fit

269

00:08:58,389 --> 00:08:56,480

yeah so you know we talk a lot about in

270

00:08:59,350 --> 00:08:58,399

crossfit either the paleo diet which is

271

00:09:01,350 --> 00:08:59,360

a more

272

00:09:03,190 --> 00:09:01,360

uh naturalistic type diet or the zone

273

00:09:05,269 --> 00:09:03,200

diet where you you balance your insulin

274

00:09:06,870 --> 00:09:05,279

spikes but uh with the amount of

275

00:09:08,630 --> 00:09:06,880

training volume and stuff that i'm doing

276

00:09:11,030 --> 00:09:08,640

especially right now

277

00:09:13,910 --> 00:09:11,040

calories or calories and uh you know the

278

00:09:15,509 --> 00:09:13,920

end of the day i'm probably putting in

279

00:09:17,750 --> 00:09:15,519

uh right about

280

00:09:19,829 --> 00:09:17,760

six or seven hours of training and then

281

00:09:21,269 --> 00:09:19,839

uh leading up to the game starts next

282

00:09:23,590 --> 00:09:21,279

week actually so

283

00:09:25,509 --> 00:09:23,600

uh we show up on monday and uh we don't

284

00:09:27,590 --> 00:09:25,519

really know what the first event or

285

00:09:29,350 --> 00:09:27,600

really when the first event is so

286

00:09:30,949 --> 00:09:29,360

you just kind of gotta gotta hope you

287

00:09:33,509 --> 00:09:30,959

get a little enough energy from the food

288

00:09:35,110 --> 00:09:33,519

that you've taken in so um but you know

289

00:09:37,910 --> 00:09:35,120

for health reasons and

290

00:09:40,230 --> 00:09:37,920

when i'm uh done competing uh you know

291

00:09:42,230 --> 00:09:40,240

there's the what we call a paleo diet or

292

00:09:44,070 --> 00:09:42,240

you know a more minimalist diet where

293

00:09:46,630 --> 00:09:44,080

you're eating whole foods versus

294

00:09:48,870 --> 00:09:46,640

processed stuff um for health reasons is

295

00:09:50,550 --> 00:09:48,880

definitely beneficial

296

00:09:52,710 --> 00:09:50,560

gotcha so rich i think a lot of us out

297

00:09:54,870 --> 00:09:52,720

here are jealous of uh

298

00:09:56,710 --> 00:09:54,880

of your ability to eat whatever you want

299

00:09:57,910 --> 00:09:56,720

that uh man i wish i could do that i

300

00:09:58,949 --> 00:09:57,920

haven't been able to do that since i was

301

00:10:00,630 --> 00:09:58,959

playing football but i certainly

302

00:10:02,550 --> 00:10:00,640

recognized that all that time you're

303

00:10:05,190 --> 00:10:02,560

putting out in the gym and all that is a

304

00:10:06,790 --> 00:10:05,200

big reason for that so uh you know i do

305

00:10:08,790 --> 00:10:06,800

want to say as well good luck next week

306

00:10:10,710 --> 00:10:08,800

i know it's a big week for you and i

307

00:10:12,790 --> 00:10:10,720

hope all the best for you thank you very

308

00:10:14,790 --> 00:10:12,800

much yeah and a lot of people get caught

309

00:10:16,550 --> 00:10:14,800

up in well rich eats whatever he wants

310

00:10:18,870 --> 00:10:16,560

but there's a lot of work that goes into

311

00:10:20,870 --> 00:10:18,880

it's not just you know and as much as i

312

00:10:23,190 --> 00:10:20,880

say i eat as much as i want to

313

00:10:25,190 --> 00:10:23,200

throughout the day

314

00:10:27,430 --> 00:10:25,200

i'm usually taking in protein shakes and

315

00:10:29,269 --> 00:10:27,440

stuff like that versus actual meals and

316

00:10:31,750 --> 00:10:29,279

then at night you know to catch up on

317

00:10:33,509 --> 00:10:31,760

calories really and it's still i try to

318

00:10:35,670 --> 00:10:33,519

eat as healthy as possible you know i

319

00:10:37,269 --> 00:10:35,680

take in good fats for energy and stuff

320

00:10:39,110 --> 00:10:37,279

like that i'm not just eating ice cream

321

00:10:40,310 --> 00:10:39,120

and all that type of stuff so

322

00:10:42,630 --> 00:10:40,320

they're still i'm still eating

323

00:10:44,949 --> 00:10:42,640

relatively healthy but um i'm not

324

00:10:46,870 --> 00:10:44,959

sticking to you know your your caveman

325

00:10:48,870 --> 00:10:46,880

died as they call it so all right yeah

326

00:10:50,230 --> 00:10:48,880

yeah you guys all you can see is rich's

327

00:10:51,030 --> 00:10:50,240

head there but this is what he looks

328

00:10:54,069 --> 00:10:51,040

like

329

00:10:58,630 --> 00:10:56,630

check that out huh yeah yeah he must be

330

00:10:59,990 --> 00:10:58,640

eating the right stuff

331

00:11:01,590 --> 00:11:00,000

that's amazing he's doing something

332

00:11:04,069 --> 00:11:01,600

right

333

00:11:07,030 --> 00:11:04,079

well speaking of um being in active

334

00:11:08,710 --> 00:11:07,040

training i know rachel and kurt likewise

335

00:11:10,069 --> 00:11:08,720

and and even jared you're getting ready

336

00:11:11,910 --> 00:11:10,079

for the upcoming football season maybe

337

00:11:13,430 --> 00:11:11,920

you guys can jump in and talk about your

338

00:11:15,430 --> 00:11:13,440

training and how much diet plays into

339

00:11:17,430 --> 00:11:15,440

that

340

00:11:19,030 --> 00:11:17,440

uh yeah i'll uh i'll jump right in on

341

00:11:20,470 --> 00:11:19,040

that a little bit um i also played

342

00:11:22,710 --> 00:11:20,480

college football in nebraska actually

343

00:11:24,470 --> 00:11:22,720

just like jared did and mike i know you

344

00:11:26,949 --> 00:11:24,480

said he played in illinois too

345

00:11:29,030 --> 00:11:26,959

yeah i'm feeling a little outnumbered

346

00:11:31,350 --> 00:11:29,040

uh i started boxlighting this is my 10th

347

00:11:32,790 --> 00:11:31,360

year at bobsley so i really have been an

348

00:11:35,030 --> 00:11:32,800

athlete for quite a while and i've seen

349

00:11:37,990 --> 00:11:35,040

how my diet has had to change in order

350

00:11:39,750 --> 00:11:38,000

to maintain uh my top level of

351
00:11:41,430 --> 00:11:39,760
apprentices you know like when i was in

352
00:11:42,790 --> 00:11:41,440
college you know i'm not sure how old

353
00:11:44,790 --> 00:11:42,800
you are rich i guess but you know i

354
00:11:46,550 --> 00:11:44,800
could eat anything i wanted and i could

355
00:11:49,750 --> 00:11:46,560
stay pretty active that way

356
00:11:50,870 --> 00:11:49,760
but at age about 24 26 um i haven't

357
00:11:52,710 --> 00:11:50,880
taken out a little bit smaller i

358
00:11:53,910 --> 00:11:52,720
couldn't eat as much you know it took me

359
00:11:55,910 --> 00:11:53,920
a little bit longer to recover from

360
00:11:58,470 --> 00:11:55,920
workouts and that sort of thing so i

361
00:12:00,470 --> 00:11:58,480
think as males at least as we age as

362
00:12:01,670 --> 00:12:00,480
athletes and uh try to stay fit i think

363
00:12:03,670 --> 00:12:01,680

our diet

364

00:12:05,430 --> 00:12:03,680

changes and kurt i'm sorry to interrupt

365

00:12:06,710 --> 00:12:05,440

i'm i'm hearing from our technical folks

366

00:12:08,470 --> 00:12:06,720

the audio is a little bad if you could

367

00:12:10,790 --> 00:12:08,480

just speak a little louder but we still

368

00:12:12,629 --> 00:12:10,800

want to hear from

369

00:12:14,470 --> 00:12:12,639

okay i can try it again i don't know if

370

00:12:17,430 --> 00:12:14,480

this is any better that sounds better

371

00:12:19,350 --> 00:12:17,440

already yeah okay thank you

372

00:12:20,870 --> 00:12:19,360

um i was saying that i played college

373

00:12:22,829 --> 00:12:20,880

football as well at nebraska just like

374

00:12:25,190 --> 00:12:22,839

jared did and

375

00:12:27,030 --> 00:12:25,200

um you know when i was in college i

376

00:12:28,550 --> 00:12:27,040

could eat anything i wanted as well and

377

00:12:31,670 --> 00:12:28,560

uh rich i'm not sure how old you are i

378

00:12:33,269 --> 00:12:31,680

guess but uh you know about age 23 24 i

379

00:12:35,829 --> 00:12:33,279

really learned that my my appetite

380

00:12:37,990 --> 00:12:35,839

changed quite a bit my diet had had to

381

00:12:39,910 --> 00:12:38,000

be altered in order to maintain the top

382

00:12:42,069 --> 00:12:39,920

level of fitness uh it probably changed

383

00:12:43,829 --> 00:12:42,079

again when i got to about age 28 29 and

384

00:12:46,230 --> 00:12:43,839

i'm not thirsty

385

00:12:48,150 --> 00:12:46,240

too so i think it's it's a key point to

386

00:12:49,670 --> 00:12:48,160

mention that you know as you age you

387

00:12:51,670 --> 00:12:49,680

know you try to stay fit you know your

388

00:12:53,269 --> 00:12:51,680

diet will change you know sometimes you

389

00:12:54,790 --> 00:12:53,279

can you know down six seven thousand

390

00:12:56,389 --> 00:12:54,800

calories a day and be able to stay fit

391

00:12:58,150 --> 00:12:56,399

but when you get a little bit older your

392

00:13:00,629 --> 00:12:58,160

body doesn't react the same type of way

393

00:13:03,750 --> 00:13:02,550

and i think probably a lot of it also is

394

00:13:05,829 --> 00:13:03,760

just the nature of the food you're

395

00:13:07,269 --> 00:13:05,839

eating like rich was saying whole foods

396

00:13:09,350 --> 00:13:07,279

better you know better quality food

397

00:13:10,949 --> 00:13:09,360

versus some of the lesser rachel you

398

00:13:12,550 --> 00:13:10,959

want to chime in we'd love to hear from

399

00:13:14,710 --> 00:13:12,560

you as well

400

00:13:16,790 --> 00:13:14,720

well i'm currently a student at stanford

401
00:13:18,629 --> 00:13:16,800
university so uh

402
00:13:20,310 --> 00:13:18,639
and right i'm sure you're quite familiar

403
00:13:21,190 --> 00:13:20,320
with it

404
00:13:23,990 --> 00:13:21,200
but

405
00:13:25,350 --> 00:13:24,000
you know i i really do try and keep an

406
00:13:28,389 --> 00:13:25,360
active lifestyle especially when i'm

407
00:13:31,030 --> 00:13:28,399
training uh and spending some very late

408
00:13:33,430 --> 00:13:31,040
nights doing homework um but you know i

409
00:13:35,910 --> 00:13:33,440
do my best to keep a normal eating and

410
00:13:37,509 --> 00:13:35,920
training regimen as i'm training for

411
00:13:39,190 --> 00:13:37,519
competitions

412
00:13:41,990 --> 00:13:39,200
especially with the rigors of my

413
00:13:43,110 --> 00:13:42,000

academic career so uh you know making

414

00:13:48,470 --> 00:13:43,120

that

415

00:13:50,629 --> 00:13:48,480

every day can be quite challenging at

416

00:13:52,790 --> 00:13:50,639

times but you know you do your best to

417

00:13:54,470 --> 00:13:52,800

make sure that you're giving your body

418

00:13:56,790 --> 00:13:54,480

what it needs at the end of the day so

419

00:14:01,110 --> 00:13:56,800

you can recover and train for the you

420

00:14:04,870 --> 00:14:02,870

and what are you studying at stanford

421

00:14:06,949 --> 00:14:04,880

i'm curious and kurt i think you have a

422

00:14:08,550 --> 00:14:06,959

degree in astronomy right or maybe

423

00:14:10,790 --> 00:14:08,560

that's jared i'm

424

00:14:12,550 --> 00:14:10,800

somebody else's i have a minor in

425

00:14:15,350 --> 00:14:12,560

astrophysics my degree is in electrical

426

00:14:18,389 --> 00:14:15,360

engineering so excellent

427

00:14:21,110 --> 00:14:18,399

pretty yeah okay gotcha and i'm doing a

428

00:14:23,269 --> 00:14:21,120

majoring in biology um planning to be a

429

00:14:26,150 --> 00:14:23,279

medical student and going to

430

00:14:28,629 --> 00:14:26,160

pediatric orthopedics

431

00:14:30,389 --> 00:14:28,639

wow that's great

432

00:14:32,310 --> 00:14:30,399

sorry mike not going to be an astronaut

433

00:14:34,069 --> 00:14:32,320

even though i'd love to mike that's my

434

00:14:36,230 --> 00:14:34,079

cousin's goal though

435

00:14:37,990 --> 00:14:36,240

maybe not yet we have doctors and

436

00:14:39,910 --> 00:14:38,000

biologists and that's right a few

437

00:14:42,230 --> 00:14:39,920

engineers so and and to be honest i've

438

00:14:43,750 --> 00:14:42,240

always dreamed of being an olympian so

439

00:14:47,829 --> 00:14:43,760

i'm very jealous of what you two are

440

00:14:52,069 --> 00:14:49,269

okay well i would love to turn it over

441

00:14:54,470 --> 00:14:52,079

to um jared who's um also here in

442

00:14:56,790 --> 00:14:54,480

houston and part of our local nfl team

443

00:14:59,430 --> 00:14:56,800

with the houston texans so jared thanks

444

00:15:02,230 --> 00:14:59,440

for joining us thank you um the one

445

00:15:03,269 --> 00:15:02,240

thing i'll add about nutrition um it's a

446

00:15:05,030 --> 00:15:03,279

little different for me being a

447

00:15:07,750 --> 00:15:05,040

defensive lineman i got to keep weight

448

00:15:09,189 --> 00:15:07,760

on uh opposed to losing it and down here

449

00:15:10,629 --> 00:15:09,199

in the houston heat

450

00:15:12,949 --> 00:15:10,639

the biggest thing for me is you know

451

00:15:16,230 --> 00:15:12,959

staying hydrated um you know i drink

452

00:15:18,389 --> 00:15:16,240

upwards to about 12 uh maybe 13 14

453

00:15:21,189 --> 00:15:18,399

ounces or glasses of water a day

454

00:15:23,110 --> 00:15:21,199

just to keep up and uh for me eating um

455

00:15:25,269 --> 00:15:23,120

you know i got to eat a lot to keep my

456

00:15:27,189 --> 00:15:25,279

energy up with this heat it'll drain you

457

00:15:28,870 --> 00:15:27,199

and you know going into fall camp right

458

00:15:30,230 --> 00:15:28,880

now the biggest thing is going to be

459

00:15:32,069 --> 00:15:30,240

keeping my energy up keeping the

460

00:15:33,590 --> 00:15:32,079

nutrients in and replenishing after

461

00:15:36,310 --> 00:15:33,600

every practice like i said before the

462

00:15:38,310 --> 00:15:36,320

heat it's something else down here so uh

463

00:15:41,189 --> 00:15:38,320

nutrition definitely plays a crucial

464

00:15:43,590 --> 00:15:41,199

role in what i do yeah

465

00:15:45,269 --> 00:15:43,600

so i think it's also really important in

466

00:15:46,629 --> 00:15:45,279

space flight if i remember correctly a

467

00:15:48,389 --> 00:15:46,639

lot of people experience a little bit of

468

00:15:50,470 --> 00:15:48,399

weight loss don't eat as much i don't

469

00:15:51,509 --> 00:15:50,480

know about drinking in space but

470

00:15:52,949 --> 00:15:51,519

is that something they've talked to you

471

00:15:54,790 --> 00:15:52,959

about to get ready for the mission like

472

00:15:56,550 --> 00:15:54,800

how do they prepare you for that you

473

00:15:58,870 --> 00:15:56,560

know i'm sure mark can can talk a little

474

00:16:01,189 --> 00:15:58,880

bit on this as well but uh anecdotally

475

00:16:03,990 --> 00:16:01,199

i've certainly heard that sometimes your

476
00:16:07,030 --> 00:16:04,000
your appetite does change you uh you

477
00:16:09,189 --> 00:16:07,040
maybe don't eat quite as much as as

478
00:16:10,470 --> 00:16:09,199
you're used to or you normally do um

479
00:16:12,389 --> 00:16:10,480
some of that can have you know

480
00:16:14,710 --> 00:16:12,399
particularly in those first few uh that

481
00:16:16,389 --> 00:16:14,720
first few weeks when you're adapting to

482
00:16:19,030 --> 00:16:16,399
life in space you may not just feel

483
00:16:21,910 --> 00:16:19,040
great as well and so that might curb

484
00:16:23,910 --> 00:16:21,920
your appetite a little bit um and but

485
00:16:26,069 --> 00:16:23,920
the fortunate thing is we've got a food

486
00:16:28,150 --> 00:16:26,079
lab here and nutritionists that are very

487
00:16:30,389 --> 00:16:28,160
concerned about our diet and so we're

488
00:16:32,550 --> 00:16:30,399

very lucky because uh they they put

489

00:16:33,910 --> 00:16:32,560

together our menu i don't have to i

490

00:16:34,790 --> 00:16:33,920

really think a lot about what i'm going

491

00:16:36,310 --> 00:16:34,800

to eat

492

00:16:38,870 --> 00:16:36,320

there's there's something there for me

493

00:16:40,069 --> 00:16:38,880

that that i'm sure i'll like as well i

494

00:16:42,230 --> 00:16:40,079

don't know mark if you have anything

495

00:16:43,670 --> 00:16:42,240

that on how much weight guys lose when

496

00:16:45,430 --> 00:16:43,680

they first get up there

497

00:16:47,030 --> 00:16:45,440

uh we

498

00:16:49,590 --> 00:16:47,040

we usually see about an eight to ten

499

00:16:50,870 --> 00:16:49,600

pound loss uh sometimes and then usually

500

00:16:51,910 --> 00:16:50,880

by the end of the mission they've gained

501
00:16:54,870 --> 00:16:51,920
that back

502
00:16:56,710 --> 00:16:54,880
um and like mike said it usually changes

503
00:16:58,629 --> 00:16:56,720
at the beginning they kind of lose

504
00:17:00,550 --> 00:16:58,639
appetite but as it moves on they're

505
00:17:02,870 --> 00:17:00,560
eating most of the time more calories

506
00:17:04,710 --> 00:17:02,880
than they are down here because you are

507
00:17:06,309 --> 00:17:04,720
actually they act they are more active

508
00:17:07,909 --> 00:17:06,319
up there they're up more more hours

509
00:17:09,750 --> 00:17:07,919
during the day doing more work so they

510
00:17:11,110 --> 00:17:09,760
stay pretty active yeah so

511
00:17:13,669 --> 00:17:11,120
actually jerry i'm just kind of curious

512
00:17:15,189 --> 00:17:13,679
if i ask a question here for jared um

513
00:17:17,750 --> 00:17:15,199

you know how much weight are you

514

00:17:19,909 --> 00:17:17,760

typically losing in a two-a-day practice

515

00:17:21,110 --> 00:17:19,919

in in august in houston

516

00:17:22,390 --> 00:17:21,120

oh well

517

00:17:24,870 --> 00:17:22,400

my

518

00:17:27,110 --> 00:17:24,880

most i've lost is a about 10 pounds in

519

00:17:29,110 --> 00:17:27,120

one day and that was you know after

520

00:17:31,430 --> 00:17:29,120

drinking during the practice and you

521

00:17:33,430 --> 00:17:31,440

know staying as hydrated as i could but

522

00:17:35,029 --> 00:17:33,440

mostly about 10 pounds but usually it's

523

00:17:37,669 --> 00:17:35,039

on average about five and that's for

524

00:17:38,950 --> 00:17:37,679

everybody um you know it's just the

525

00:17:40,950 --> 00:17:38,960

amount of water that you lose in a

526

00:17:42,789 --> 00:17:40,960

practice it's hard to keep up and you

527

00:17:44,710 --> 00:17:42,799

really can't replace what you lose

528

00:17:46,390 --> 00:17:44,720

during the practice so it's crucial you

529

00:17:47,750 --> 00:17:46,400

know after the practice to get in your

530

00:17:48,950 --> 00:17:47,760

you know your supplements and as well as

531

00:17:49,830 --> 00:17:48,960

rehydrate

532

00:17:51,510 --> 00:17:49,840

yeah

533

00:17:53,430 --> 00:17:51,520

rich do you find the same thing during

534

00:17:55,510 --> 00:17:53,440

the the competitions with uh with

535

00:17:57,909 --> 00:17:55,520

crossfit that you you really have to try

536

00:18:00,470 --> 00:17:57,919

and keep your uh your intake up while

537

00:18:02,390 --> 00:18:00,480

you're competing to be honest uh

538

00:18:03,830 --> 00:18:02,400

training here in tennessee is a little

539

00:18:05,750 --> 00:18:03,840

bit different than training california

540

00:18:07,669 --> 00:18:05,760

when i actually compete at the games

541

00:18:09,430 --> 00:18:07,679

uh the humidity is miserable in

542

00:18:12,310 --> 00:18:09,440

tennessee so when you go to california

543

00:18:15,669 --> 00:18:12,320

it's hot but it's not anything near the

544

00:18:17,510 --> 00:18:15,679

the same heat as it is back home so my

545

00:18:19,029 --> 00:18:17,520

hardest part is training leading up to

546

00:18:20,310 --> 00:18:19,039

the game just trying to stay hydrated

547

00:18:21,990 --> 00:18:20,320

trying to get out of the heat every once

548

00:18:23,590 --> 00:18:22,000

in a while when i can because it's i

549

00:18:26,230 --> 00:18:23,600

mean it's just muggy and i sweat like

550

00:18:28,470 --> 00:18:26,240

crazy anyway it's you know i i can lose

551
00:18:30,070 --> 00:18:28,480
uh three to four pounds in a workout and

552
00:18:31,669 --> 00:18:30,080
my workouts aren't two to three hours

553
00:18:33,750 --> 00:18:31,679
like his are so

554
00:18:35,029 --> 00:18:33,760
it uh it all depends

555
00:18:36,150 --> 00:18:35,039
yeah

556
00:18:38,470 --> 00:18:36,160
all right

557
00:18:40,630 --> 00:18:38,480
hey mike i have a question for you um

558
00:18:42,710 --> 00:18:40,640
are you familiar with uh an astronaut

559
00:18:44,470 --> 00:18:42,720
named sunita williams

560
00:18:46,310 --> 00:18:44,480
uh absolutely

561
00:18:49,510 --> 00:18:46,320
well i don't know if all the people who

562
00:18:52,630 --> 00:18:49,520
are watching know that she famously ran

563
00:18:54,710 --> 00:18:52,640

a boston marathon on a treadmill

564

00:18:57,110 --> 00:18:54,720

finished it in four hours and 20 minutes

565

00:18:59,510 --> 00:18:57,120

well i think she was orbiting the earth

566

00:19:01,990 --> 00:18:59,520

i i wonder uh mike if you have any plans

567

00:19:04,070 --> 00:19:02,000

to to show sunita up and maybe do a

568

00:19:05,350 --> 00:19:04,080

triple iron man or something up there

569

00:19:07,350 --> 00:19:05,360

yeah well

570

00:19:09,029 --> 00:19:07,360

i don't think you can uh show sonny up

571

00:19:11,350 --> 00:19:09,039

she's uh she's a pretty incredible

572

00:19:12,870 --> 00:19:11,360

person a pretty incredible uh runner in

573

00:19:15,190 --> 00:19:12,880

her own right

574

00:19:16,950 --> 00:19:15,200

you know i was actually hoping that uh

575

00:19:18,789 --> 00:19:16,960

i'd have an opportunity to maybe compete

576

00:19:20,150 --> 00:19:18,799

in the in the crossfit games from on

577

00:19:21,909 --> 00:19:20,160

orbit

578

00:19:23,190 --> 00:19:21,919

unfortunately the timing's

579

00:19:25,190 --> 00:19:23,200

not going to work out real well i don't

580

00:19:26,630 --> 00:19:25,200

get up there till september and as rich

581

00:19:27,750 --> 00:19:26,640

said they're they're competing next week

582

00:19:30,710 --> 00:19:27,760

in that so

583

00:19:35,350 --> 00:19:32,310

well and i may just try and do some of

584

00:19:37,430 --> 00:19:35,360

that uh the open workouts where

585

00:19:39,590 --> 00:19:37,440

they they put out an exercise in their

586

00:19:42,470 --> 00:19:39,600

uh routine and work out of the day and

587

00:19:43,510 --> 00:19:42,480

and you film that so we'll see

588

00:19:45,270 --> 00:19:43,520

yeah you know

589

00:19:46,390 --> 00:19:45,280

the follow-up question that i had you

590

00:19:48,070 --> 00:19:46,400

know i've been reading about what kind

591

00:19:50,230 --> 00:19:48,080

of workouts you guys do up there once

592

00:19:52,390 --> 00:19:50,240

you're in orbit and i'm seeing that you

593

00:19:54,230 --> 00:19:52,400

know it's actually built into your you

594

00:19:56,470 --> 00:19:54,240

know your work duties for the day and

595

00:19:57,909 --> 00:19:56,480

then you can be exercising two to four

596

00:20:00,549 --> 00:19:57,919

hours while you're up there to fight

597

00:20:01,830 --> 00:20:00,559

that muscle loss that inevitably happens

598

00:20:04,630 --> 00:20:01,840

you know i guess what i'm really

599

00:20:06,789 --> 00:20:04,640

wondering is how you fight boredom

600

00:20:09,510 --> 00:20:06,799

as a as an exerciser when you're doing

601
00:20:11,510 --> 00:20:09,520
it you know two hours a day i i do it

602
00:20:12,950 --> 00:20:11,520
because i i tend to play a lot of sports

603
00:20:15,029 --> 00:20:12,960
so you're interested in the game and

604
00:20:16,630 --> 00:20:15,039
that keeps you motivated i wonder how

605
00:20:18,310 --> 00:20:16,640
you uh make it through a two-hour

606
00:20:21,190 --> 00:20:18,320
workout

607
00:20:23,190 --> 00:20:21,200
yeah so um you know the nice thing about

608
00:20:24,870 --> 00:20:23,200
working out on orbit is you actually are

609
00:20:27,110 --> 00:20:24,880
in orbit so you're floating around and

610
00:20:28,789 --> 00:20:27,120
so i think that that in itself probably

611
00:20:31,190 --> 00:20:28,799
uh relieves a little bit of the boredom

612
00:20:33,430 --> 00:20:31,200
and then the other amazing thing is the

613
00:20:36,390 --> 00:20:33,440

the arab which is our adaptive resistive

614

00:20:37,510 --> 00:20:36,400

exercise device so that's our squat rack

615

00:20:39,350 --> 00:20:37,520

it definitely looks a little bit

616

00:20:40,470 --> 00:20:39,360

different but it accomplishes a lot of

617

00:20:42,149 --> 00:20:40,480

the same

618

00:20:43,909 --> 00:20:42,159

exercises for us

619

00:20:46,470 --> 00:20:43,919

but uh when you're on that you're

620

00:20:48,789 --> 00:20:46,480

actually right over the cupola and so

621

00:20:50,470 --> 00:20:48,799

you've got the the earth floating by

622

00:20:52,630 --> 00:20:50,480

underneath you as as you're doing a

623

00:20:54,230 --> 00:20:52,640

squat or a deadlift so probably the

624

00:20:56,789 --> 00:20:54,240

hardest part is going to be not hurting

625

00:20:59,190 --> 00:20:56,799

myself by getting distracted as uh as

626

00:21:01,190 --> 00:20:59,200

the earth's going by

627

00:21:03,350 --> 00:21:01,200

well you be careful all right i'll do

628

00:21:05,190 --> 00:21:03,360

that

629

00:21:08,630 --> 00:21:05,200

i i actually have a question if you

630

00:21:10,789 --> 00:21:08,640

don't mind no uh for rachel i'm curious

631

00:21:12,470 --> 00:21:10,799

uh i haven't followed be honest figure

632

00:21:14,870 --> 00:21:12,480

skating very much but i'm curious how

633

00:21:17,350 --> 00:21:14,880

much strength training do figure skaters

634

00:21:19,990 --> 00:21:17,360

actually do

635

00:21:23,029 --> 00:21:20,000

well most gators tend to avoid doing a

636

00:21:24,630 --> 00:21:23,039

lot of major strength training just to

637

00:21:26,470 --> 00:21:24,640

ensure that they don't bulk up because

638

00:21:28,710 --> 00:21:26,480

in skating you know you really want to

639

00:21:30,870 --> 00:21:28,720

keep a lean fit body

640

00:21:32,070 --> 00:21:30,880

so a lot of us will do like yoga and

641

00:21:34,310 --> 00:21:32,080

pilates

642

00:21:36,789 --> 00:21:34,320

i actually i work out here over the otc

643

00:21:39,510 --> 00:21:36,799

but you do a lot of body mass exercises

644

00:21:40,630 --> 00:21:39,520

so you use your own body mass to uh work

645

00:21:42,549 --> 00:21:40,640

on you know

646

00:21:43,990 --> 00:21:42,559

treating your muscles and

647

00:21:45,270 --> 00:21:44,000

doing all those sorts of things and

648

00:21:48,070 --> 00:21:45,280

especially with regards to

649

00:21:50,310 --> 00:21:48,080

cardiovascular training we do our best

650

00:21:52,630 --> 00:21:50,320

to do uh you know to do a lot of

651
00:21:55,830 --> 00:21:52,640
anaerobic training earlier in the season

652
00:21:58,630 --> 00:21:55,840
um a lot of aerobic training um

653
00:22:00,149 --> 00:21:58,640
prior to that in our preseason so um

654
00:22:01,430 --> 00:22:00,159
it's you know it's quite a bit of work

655
00:22:03,190 --> 00:22:01,440
but it is you know a little bit

656
00:22:05,029 --> 00:22:03,200
different from what some of the athletes

657
00:22:06,789 --> 00:22:05,039
might do like from what kirk does in the

658
00:22:08,549 --> 00:22:06,799
weight room every day feels like

659
00:22:09,830 --> 00:22:08,559
incredible strength training for bobsled

660
00:22:10,870 --> 00:22:09,840
i can tell you that

661
00:22:14,310 --> 00:22:10,880
yeah

662
00:22:16,789 --> 00:22:14,320
different from rachel where i'm doing a

663
00:22:19,029 --> 00:22:16,799

lot of resistant training squats cleans

664

00:22:20,870 --> 00:22:19,039

um resistance sprints you know anything

665

00:22:23,350 --> 00:22:20,880

to get stronger and faster and bulk up

666

00:22:26,470 --> 00:22:23,360

and they put on mass without

667

00:22:28,470 --> 00:22:26,480

hurting our aerodynamics of our sled so

668

00:22:29,830 --> 00:22:28,480

most of my work is resistance work and

669

00:22:30,549 --> 00:22:29,840

so it's really interesting to hear about

670

00:22:32,630 --> 00:22:30,559

the

671

00:22:34,470 --> 00:22:32,640

adaptive resistance

672

00:22:35,270 --> 00:22:34,480

mechanism that you guys use up in space

673

00:22:38,470 --> 00:22:35,280

but

674

00:22:39,590 --> 00:22:38,480

i also want to ask mike and mark

675

00:22:41,590 --> 00:22:39,600

you know rachel and i are training here

676
00:22:43,909 --> 00:22:41,600
in colorado springs we're about at 6 000

677
00:22:45,909 --> 00:22:43,919
feet and uh you know my sport is all

678
00:22:48,230 --> 00:22:45,919
about power uh short bursts of power and

679
00:22:50,470 --> 00:22:48,240
so my endurance is very low you know if

680
00:22:52,830 --> 00:22:50,480
you ask me to run 200 meter dash i'd

681
00:22:55,270 --> 00:22:52,840
probably pass out but i can run 50

682
00:22:56,870 --> 00:22:55,280
meters you know so the

683
00:22:58,230 --> 00:22:56,880
you know training at altitude you know

684
00:22:59,669 --> 00:22:58,240
affects athletes in different ways so

685
00:23:01,029 --> 00:22:59,679
i'm just kind of curious you know when

686
00:23:03,029 --> 00:23:01,039
you're up in space and you're training

687
00:23:04,950 --> 00:23:03,039
and that sort of thing i understand that

688
00:23:06,230 --> 00:23:04,960

you know it is pressurized up there and

689

00:23:08,390 --> 00:23:06,240

everything but you know about what

690

00:23:10,230 --> 00:23:08,400

altitude you know can you compare

691

00:23:12,470 --> 00:23:10,240

being inside the space station or

692

00:23:16,230 --> 00:23:12,480

wherever you are with uh you know what

693

00:23:19,110 --> 00:23:17,830

yeah that's that's an excellent question

694

00:23:20,549 --> 00:23:19,120

and uh

695

00:23:22,070 --> 00:23:20,559

the the altitude that we're at is

696

00:23:24,310 --> 00:23:22,080

basically where we're sitting right now

697

00:23:28,070 --> 00:23:24,320

so uh it's it's sea level we're at about

698

00:23:29,750 --> 00:23:28,080

uh 14.7 psi so that's

699

00:23:31,190 --> 00:23:29,760

kind of the standard now i like your

700

00:23:32,870 --> 00:23:31,200

idea though i hadn't thought about that

701
00:23:34,870 --> 00:23:32,880
of maybe changing the pressure in this

702
00:23:36,950 --> 00:23:34,880
in the station so that we can

703
00:23:38,470 --> 00:23:36,960
train like we're up at 6 000 feet i

704
00:23:40,070 --> 00:23:38,480
don't know if i can get the engineers to

705
00:23:41,830 --> 00:23:40,080
go with that that's uh that's a neat

706
00:23:42,789 --> 00:23:41,840
idea maybe you want to be careful with

707
00:23:46,950 --> 00:23:42,799
that one

708
00:23:51,029 --> 00:23:49,029
hey i actually i have a question for uh

709
00:23:53,750 --> 00:23:51,039
for her i'm just

710
00:23:56,149 --> 00:23:53,760
one of the things i've noticed from my

711
00:23:58,470 --> 00:23:56,159
time playing football at illinois which

712
00:24:00,310 --> 00:23:58,480
was back in the late 80s early 90s and i

713
00:24:02,470 --> 00:24:00,320

know you're about a decade after me but

714

00:24:05,430 --> 00:24:02,480

i've seen a huge change

715

00:24:07,830 --> 00:24:05,440

in uh in the way we worked out back then

716

00:24:09,750 --> 00:24:07,840

to to what we're doing now and i think

717

00:24:11,029 --> 00:24:09,760

what i see rich doing et cetera where

718

00:24:12,950 --> 00:24:11,039

there's uh

719

00:24:14,230 --> 00:24:12,960

um a little bit you know when i was when

720

00:24:17,350 --> 00:24:14,240

i was training in illinois a lot of

721

00:24:19,350 --> 00:24:17,360

weights um and uh and then running was

722

00:24:21,590 --> 00:24:19,360

kind of a separate activity as well we

723

00:24:23,669 --> 00:24:21,600

didn't combine those as much as what i i

724

00:24:25,029 --> 00:24:23,679

feel like i see now in in this crossfit

725

00:24:26,549 --> 00:24:25,039

so i'm just curious for you kurt have

726
00:24:28,470 --> 00:24:26,559
you noticed that change from when you

727
00:24:30,950 --> 00:24:28,480
were playing at nebraska and

728
00:24:34,149 --> 00:24:30,960
and uh and how that's

729
00:24:36,070 --> 00:24:34,159
evolved i guess over the last 20 years

730
00:24:37,590 --> 00:24:36,080
um possibly you know you say i came a

731
00:24:39,430 --> 00:24:37,600
decade after you and i think jared's

732
00:24:41,110 --> 00:24:39,440
close to a decade after me so he might

733
00:24:43,029 --> 00:24:41,120
be able to add more to this after i'm

734
00:24:44,710 --> 00:24:43,039
done here but um yeah when i was in

735
00:24:45,909 --> 00:24:44,720
college you know there was a great

736
00:24:48,230 --> 00:24:45,919
strength and commissioning program at

737
00:24:51,029 --> 00:24:48,240
nebraska under boyd eppley and uh you

738
00:24:52,710 --> 00:24:51,039

know i learned a lot um and mostly you

739

00:24:54,310 --> 00:24:52,720

know i would say

740

00:24:56,070 --> 00:24:54,320

probably over half of our conditioning

741

00:24:57,750 --> 00:24:56,080

was not in the weight room and with the

742

00:24:59,590 --> 00:24:57,760

running workouts as compared to just

743

00:25:00,950 --> 00:24:59,600

with football practice it was a great

744

00:25:02,870 --> 00:25:00,960

balance of winter conditioning and

745

00:25:05,110 --> 00:25:02,880

summer conditioning in between fall

746

00:25:06,710 --> 00:25:05,120

football and spring football so year

747

00:25:07,830 --> 00:25:06,720

round you know there was a lot of

748

00:25:10,149 --> 00:25:07,840

workouts

749

00:25:12,070 --> 00:25:10,159

they were continually doing research you

750

00:25:14,390 --> 00:25:12,080

know trying to find better ways and you

751

00:25:15,750 --> 00:25:14,400

know different ways to you know adapt to

752

00:25:17,830 --> 00:25:15,760

different athletes because you know each

753

00:25:20,390 --> 00:25:17,840

athlete each position you know require

754

00:25:21,350 --> 00:25:20,400

different types of workouts so um you

755

00:25:23,110 --> 00:25:21,360

know it was

756

00:25:24,549 --> 00:25:23,120

a lot like bobsled training that i do

757

00:25:26,710 --> 00:25:24,559

now where it's you know building up

758

00:25:30,070 --> 00:25:26,720

strength and power for you know big

759

00:25:33,590 --> 00:25:30,080

bursts of energy but uh yeah i think it

760

00:25:36,950 --> 00:25:35,190

hey as long as we're doing the curt and

761

00:25:39,510 --> 00:25:36,960

rachel show here

762

00:25:41,909 --> 00:25:39,520

i have a a uh a question for the two of

763

00:25:43,909 --> 00:25:41,919

you like you both have very different

764

00:25:46,630 --> 00:25:43,919

you know sports uh rachel's obviously in

765

00:25:48,149 --> 00:25:46,640

a finesse sport curtain a power sport

766

00:25:49,830 --> 00:25:48,159

but i think that one of the things that

767

00:25:52,070 --> 00:25:49,840

you guys would both have to deal with is

768

00:25:54,710 --> 00:25:52,080

fear in that both of your sports in

769

00:25:56,870 --> 00:25:54,720

their own way are are pretty dangerous

770

00:25:58,630 --> 00:25:56,880

actually i mean do you guys

771

00:26:00,310 --> 00:25:58,640

pay attention to mental training in

772

00:26:01,990 --> 00:26:00,320

addition to your physical training as

773

00:26:04,789 --> 00:26:02,000

you know as you as you look at these

774

00:26:09,029 --> 00:26:04,799

enormously difficult uh tasks that you

775

00:26:15,430 --> 00:26:12,310

absolutely you know uh mental training

776
00:26:16,950 --> 00:26:15,440
is hugely important to what we do

777
00:26:19,110 --> 00:26:16,960
especially when we get on the olympic

778
00:26:22,310 --> 00:26:19,120
stage you know we've trained so hard at

779
00:26:24,310 --> 00:26:22,320
that point um and it's all muscle memory

780
00:26:27,510 --> 00:26:24,320
but it really comes down to the mental

781
00:26:29,430 --> 00:26:27,520
game and if you can prepare yourself to

782
00:26:31,750 --> 00:26:29,440
the point where you can perform under

783
00:26:33,990 --> 00:26:31,760
any amount of pressure in any situation

784
00:26:36,230 --> 00:26:34,000
and really be flexible with that so

785
00:26:38,710 --> 00:26:36,240
for me uh you know that involves a lot

786
00:26:40,789 --> 00:26:38,720
of visualization and

787
00:26:43,350 --> 00:26:40,799
and doing a lot of simulations and

788
00:26:45,830 --> 00:26:43,360

practice before i do the competition to

789

00:26:48,870 --> 00:26:45,840

ensure that i really feel prepared prior

790

00:26:52,950 --> 00:26:51,190

i guess conversely to what rachel does i

791

00:26:55,190 --> 00:26:52,960

think our mental training is to train

792

00:26:57,269 --> 00:26:55,200

ourselves not to think um you know if

793

00:26:59,029 --> 00:26:57,279

you think about what you're doing going

794

00:27:00,630 --> 00:26:59,039

80 90 miles per hour you know on the

795

00:27:02,390 --> 00:27:00,640

edge of out of control you know that's

796

00:27:04,549 --> 00:27:02,400

when you can't let the mental side of

797

00:27:06,149 --> 00:27:04,559

things creep in and cause negative

798

00:27:07,990 --> 00:27:06,159

thoughts and you don't want that at all

799

00:27:09,269 --> 00:27:08,000

so the less you can think about what

800

00:27:11,590 --> 00:27:09,279

you're going to do

801
00:27:13,190 --> 00:27:11,600
maybe the better um but you know at the

802
00:27:14,470 --> 00:27:13,200
same time uh

803
00:27:16,789 --> 00:27:14,480
you know that's what makes our sport

804
00:27:18,149 --> 00:27:16,799
exciting is that there is that fear and

805
00:27:20,390 --> 00:27:18,159
uh you know if you can overcome that

806
00:27:22,630 --> 00:27:20,400
fear that adrenaline rush every time

807
00:27:23,510 --> 00:27:22,640
that's that's what makes it fun in a way

808
00:27:25,110 --> 00:27:23,520
i guess

809
00:27:27,430 --> 00:27:25,120
okay in that case kurt i withdraw the

810
00:27:28,870 --> 00:27:27,440
question yeah

811
00:27:30,950 --> 00:27:28,880
actually while we're talking about the

812
00:27:33,350 --> 00:27:30,960
mental parts i'm just curious for like

813
00:27:36,310 --> 00:27:33,360

jared for example if you had any major

814

00:27:37,990 --> 00:27:36,320

injuries in your in your career

815

00:27:40,310 --> 00:27:38,000

and you know you talk about that mental

816

00:27:42,630 --> 00:27:40,320

piece i uh just a couple years ago blew

817

00:27:44,310 --> 00:27:42,640

out my first acl that's the first major

818

00:27:46,630 --> 00:27:44,320

knee injury that i had

819

00:27:48,630 --> 00:27:46,640

and i have to say that one of the

820

00:27:51,110 --> 00:27:48,640

hardest parts was mentally coming back

821

00:27:54,789 --> 00:27:51,120

from that and and being confident

822

00:27:56,710 --> 00:27:54,799

um in my in my knees in my joints to

823

00:27:58,870 --> 00:27:56,720

continue working out i don't know jared

824

00:28:01,029 --> 00:27:58,880

if you had any of those experiences

825

00:28:03,430 --> 00:28:01,039

actually i have uh i had my senior year

826

00:28:04,710 --> 00:28:03,440

of college cut short i uh i had tore my

827

00:28:06,789 --> 00:28:04,720

pec muscle

828

00:28:08,389 --> 00:28:06,799

and that sat me out for the entire year

829

00:28:11,190 --> 00:28:08,399

um and like you said about the mental

830

00:28:12,310 --> 00:28:11,200

part um you know just just uh

831

00:28:14,870 --> 00:28:12,320

wondering if you're going to come back

832

00:28:17,029 --> 00:28:14,880

100 that was the biggest thing for me

833

00:28:18,630 --> 00:28:17,039

it seemed like recovery took forever i

834

00:28:19,909 --> 00:28:18,640

wasn't going fast enough i wasn't sure

835

00:28:21,830 --> 00:28:19,919

if my strength was going to be backed or

836

00:28:23,990 --> 00:28:21,840

it was and uh you know it took a while

837

00:28:25,510 --> 00:28:24,000

for me to trust in my uh my arm again

838

00:28:27,430 --> 00:28:25,520

and it took probably

839

00:28:29,430 --> 00:28:27,440

uh somewhere mid you know season last

840

00:28:30,789 --> 00:28:29,440

year until i finally felt okay it's not

841

00:28:32,470 --> 00:28:30,799

going to tear again it's you know it's

842

00:28:33,590 --> 00:28:32,480

back to where it was i can go full board

843

00:28:35,350 --> 00:28:33,600

again

844

00:28:43,190 --> 00:28:35,360

yeah we'll wait to your uh way to your

845

00:28:47,990 --> 00:28:45,510

for team nasa i'm curious to know like

846

00:28:49,430 --> 00:28:48,000

in the training you know to go you know

847

00:28:51,590 --> 00:28:49,440

to outer space

848

00:28:53,669 --> 00:28:51,600

is there anything different in

849

00:28:55,029 --> 00:28:53,679

that you specifically trained for that

850

00:28:55,909 --> 00:28:55,039

would be different than say any of the

851
00:28:58,230 --> 00:28:55,919
other

852
00:28:59,669 --> 00:28:58,240
uh sort of just basic differences in how

853
00:29:01,350 --> 00:28:59,679
folks are training for their different

854
00:29:02,389 --> 00:29:01,360
sports but are there particular things

855
00:29:04,070 --> 00:29:02,399
about

856
00:29:05,990 --> 00:29:04,080
being in outer space that either you

857
00:29:08,149 --> 00:29:06,000
know that you're doing preparing you

858
00:29:10,549 --> 00:29:08,159
know on planet earth or once you get out

859
00:29:12,310 --> 00:29:10,559
there that you have to be extra aware of

860
00:29:13,990 --> 00:29:12,320
that like when i'm in the gym i would

861
00:29:16,630 --> 00:29:14,000
never even think of

862
00:29:17,990 --> 00:29:16,640
yeah i'll take the first cut at that and

863
00:29:19,029 --> 00:29:18,000

then i'll turn it over to mark cause i

864

00:29:21,750 --> 00:29:19,039

know he's gonna be able to get a little

865

00:29:23,190 --> 00:29:21,760

bit more specific on it but uh one of

866

00:29:24,950 --> 00:29:23,200

the things that we do here on earth and

867

00:29:26,950 --> 00:29:24,960

we have to spend time training on is the

868

00:29:29,909 --> 00:29:26,960

actual equipment that we have on orbit

869

00:29:31,830 --> 00:29:29,919

and understand how to use it

870

00:29:33,990 --> 00:29:31,840

and because there are limitations to it

871

00:29:36,070 --> 00:29:34,000

and it's it's very critical

872

00:29:38,230 --> 00:29:36,080

to our space flight

873

00:29:39,510 --> 00:29:38,240

and to our own health and so we want to

874

00:29:41,669 --> 00:29:39,520

make sure we're using it in the right

875

00:29:43,430 --> 00:29:41,679

ways and when we don't break it and all

876

00:29:45,190 --> 00:29:43,440

of those kind of things because if those

877

00:29:47,350 --> 00:29:45,200

pieces of equipment go down that's a bad

878

00:29:49,110 --> 00:29:47,360

day on station and that takes

879

00:29:50,389 --> 00:29:49,120

maybe the toilet would take priority if

880

00:29:52,630 --> 00:29:50,399

it broke but

881

00:29:54,549 --> 00:29:52,640

when when the a-rack goes down

882

00:29:56,549 --> 00:29:54,559

you're jumping on that to make sure that

883

00:29:58,630 --> 00:29:56,559

you get it fixed so a lot of the

884

00:30:01,029 --> 00:29:58,640

training that we do on the ground is

885

00:30:03,269 --> 00:30:01,039

going to mirror the types of exercises

886

00:30:04,389 --> 00:30:03,279

that we're able to do up on orbit and

887

00:30:06,389 --> 00:30:04,399

mark i don't know if you want to add to

888

00:30:08,470 --> 00:30:06,399

that a little bit yeah the only thing i

889

00:30:10,149 --> 00:30:08,480

would i would add is that

890

00:30:11,750 --> 00:30:10,159

one of the things that we deal with in

891

00:30:13,350 --> 00:30:11,760

space flight that we don't normally deal

892

00:30:15,909 --> 00:30:13,360

with in a one year we don't think about

893

00:30:16,870 --> 00:30:15,919

it much is bone loss bone loss in space

894

00:30:18,950 --> 00:30:16,880

is

895

00:30:19,990 --> 00:30:18,960

accelerated we see about one percent a

896

00:30:20,789 --> 00:30:20,000

month

897

00:30:22,710 --> 00:30:20,799

so

898

00:30:24,870 --> 00:30:22,720

what we try to do with the resistive

899

00:30:26,310 --> 00:30:24,880

exercise device is mitigate as much of

900

00:30:28,230 --> 00:30:26,320

that as we can and we do that by

901
00:30:30,149 --> 00:30:28,240
manipulating the volume

902
00:30:31,669 --> 00:30:30,159
the the weight that the astronauts

903
00:30:33,430 --> 00:30:31,679
actually lifting the changing of

904
00:30:35,669 --> 00:30:33,440
exercises every day it's something

905
00:30:37,190 --> 00:30:35,679
different and we're trying to basically

906
00:30:39,190 --> 00:30:37,200
is for simple as to try to trick the

907
00:30:41,110 --> 00:30:39,200
body into thinking that it doesn't know

908
00:30:42,870 --> 00:30:41,120
what stimulus is coming and it never has

909
00:30:43,669 --> 00:30:42,880
a time to adapt to any one particular

910
00:30:47,510 --> 00:30:43,679
thing

911
00:30:49,510 --> 00:30:47,520
a little bit different in flight other

912
00:30:50,950 --> 00:30:49,520
than that we the loss of strength in

913
00:30:52,230 --> 00:30:50,960

aerobic we do the same things we're

914

00:30:53,510 --> 00:30:52,240

going to train aerobically to gain

915

00:30:55,029 --> 00:30:53,520

cardiovascular fitness and we're going

916

00:30:57,430 --> 00:30:55,039

to train strength to gain muscle

917

00:31:00,310 --> 00:30:57,440

strength and muscle endurance and power

918

00:31:04,870 --> 00:31:00,320

so no it's pretty much the same

919

00:31:06,389 --> 00:31:04,880

you just described crossfit yeah

920

00:31:08,310 --> 00:31:06,399

yeah it's actually interesting to say

921

00:31:10,870 --> 00:31:08,320

that risk is a lot of uh

922

00:31:12,789 --> 00:31:10,880

a lot of what we are doing now involves

923

00:31:14,870 --> 00:31:12,799

workout of the days and involves uh

924

00:31:17,190 --> 00:31:14,880

exercises that

925

00:31:19,669 --> 00:31:17,200

i guess are are doing more than again

926
00:31:21,190 --> 00:31:19,679
like when i was was playing football you

927
00:31:22,389 --> 00:31:21,200
know you just lifted weights now you're

928
00:31:25,029 --> 00:31:22,399
doing

929
00:31:27,350 --> 00:31:25,039
this whole host of exercises in a row in

930
00:31:29,350 --> 00:31:27,360
20 minutes doing as many as you can

931
00:31:32,470 --> 00:31:29,360
and that's certainly been something new

932
00:31:34,149 --> 00:31:32,480
for me and it gets your heart rate going

933
00:31:37,110 --> 00:31:34,159
but can you help me understand how that

934
00:31:38,549 --> 00:31:37,120
works without gravity

935
00:31:40,389 --> 00:31:38,559
how what works

936
00:31:42,310 --> 00:31:40,399
you know how like i assume that like the

937
00:31:43,830 --> 00:31:42,320
fact that there's no gravity would have

938
00:31:45,350 --> 00:31:43,840

an impact on

939

00:31:47,190 --> 00:31:45,360

you know what kind of exercises are in

940

00:31:49,750 --> 00:31:47,200

play like what is what would crossfit

941

00:31:51,350 --> 00:31:49,760

look like if you're floating well it's

942

00:31:52,870 --> 00:31:51,360

not well in flight is going to be

943

00:31:54,549 --> 00:31:52,880

different i we haven't decided what

944

00:31:56,389 --> 00:31:54,559

we're going to do with that yet but

945

00:31:58,789 --> 00:31:56,399

we're still go we're still going to

946

00:32:00,710 --> 00:31:58,799

focus on the main activities that are

947

00:32:01,909 --> 00:32:00,720

the main exercises which for us are

948

00:32:04,710 --> 00:32:01,919

squats

949

00:32:06,870 --> 00:32:04,720

in in many different forms dead lifting

950

00:32:08,710 --> 00:32:06,880

in many different forms pressing

951
00:32:10,870 --> 00:32:08,720
shoulder press push pre that kind of

952
00:32:12,630 --> 00:32:10,880
stuff all these things we can still do

953
00:32:14,870 --> 00:32:12,640
those in flight with the resistive

954
00:32:17,269 --> 00:32:14,880
exercise device it's going to be how we

955
00:32:19,669 --> 00:32:17,279
put those together with running on the

956
00:32:21,110 --> 00:32:19,679
treadmill at the same time and and

957
00:32:22,149 --> 00:32:21,120
moving over and doing something else

958
00:32:23,590 --> 00:32:22,159
that's where it's going to get a little

959
00:32:25,029 --> 00:32:23,600
tricky we haven't kind of figured that

960
00:32:27,029 --> 00:32:25,039
out yet we have a little bit of time to

961
00:32:28,389 --> 00:32:27,039
work on that yeah but we'll see that

962
00:32:29,669 --> 00:32:28,399
sounds tricky

963
00:32:31,110 --> 00:32:29,679

yeah sam because actually one of the

964

00:32:32,870 --> 00:32:31,120

things that happens

965

00:32:34,470 --> 00:32:32,880

there's a little more overhead

966

00:32:36,549 --> 00:32:34,480

associated with getting on the treadmill

967

00:32:38,470 --> 00:32:36,559

for example so it's not like i can can

968

00:32:40,389 --> 00:32:38,480

sit there and do

969

00:32:42,230 --> 00:32:40,399

some deadlifts and then just float over

970

00:32:43,750 --> 00:32:42,240

to the treadmill and start running i

971

00:32:46,470 --> 00:32:43,760

actually have to put on a harness i have

972

00:32:48,789 --> 00:32:46,480

to strap myself into the treadmill and

973

00:32:50,549 --> 00:32:48,799

and so that in itself is going to take

974

00:32:52,549 --> 00:32:50,559

away from some of the benefits of the

975

00:32:54,070 --> 00:32:52,559

things that rich is doing where you know

976

00:32:55,669 --> 00:32:54,080

he's he's doing

977

00:32:57,509 --> 00:32:55,679

20 pull-ups and then immediately jumping

978

00:32:59,269 --> 00:32:57,519

down and doing burpees and then running

979

00:33:00,870 --> 00:32:59,279

or you know all these kind of things and

980

00:33:03,269 --> 00:33:00,880

it's a little harder for us to do that

981

00:33:05,430 --> 00:33:03,279

in the zero gravity and better

982

00:33:07,430 --> 00:33:05,440

yeah i think this is all a lesson to the

983

00:33:09,990 --> 00:33:07,440

rest of us who don't have to strap on an

984

00:33:12,470 --> 00:33:10,000

apparatus to get our weightlifting and

985

00:33:13,350 --> 00:33:12,480

we can just do the work you know here on

986

00:33:14,950 --> 00:33:13,360

earth

987

00:33:17,830 --> 00:33:14,960

none of us has that much of an excuse

988

00:33:19,430 --> 00:33:17,840

for not doing it uh we just have to make

989

00:33:21,190 --> 00:33:19,440

make sure we organize our days to take

990

00:33:22,789 --> 00:33:21,200

care of it

991

00:33:24,070 --> 00:33:22,799

well but you know essentially you said

992

00:33:25,750 --> 00:33:24,080

because we we certainly don't have an

993

00:33:28,710 --> 00:33:25,760

excuse in orbit either because they put

994

00:33:30,710 --> 00:33:28,720

it on our schedule and

995

00:33:32,310 --> 00:33:30,720

part of the paycheck right that's part

996

00:33:33,990 --> 00:33:32,320

of the paycheck yeah actually that's one

997

00:33:35,830 --> 00:33:34,000

of the great things about it in fact uh

998

00:33:37,509 --> 00:33:35,840

most of us here on this on this panel

999

00:33:39,110 --> 00:33:37,519

right i mean can you ask for anything

1000

00:33:44,230 --> 00:33:39,120

better where you actually get paid to uh

1001
00:33:48,389 --> 00:33:46,789
sorry no no um i was just going to jump

1002
00:33:49,590 --> 00:33:48,399
in because we did solicit some questions

1003
00:33:51,269 --> 00:33:49,600
by twitter so i was going to just throw

1004
00:33:54,549 --> 00:33:51,279
in a couple of those real quick

1005
00:33:57,509 --> 00:33:54,559
um so one is from at willow19

1006
00:33:59,029 --> 00:33:57,519
1988 who asked is it about is it all

1007
00:34:01,590 --> 00:33:59,039
about balance or is it to do with

1008
00:34:04,830 --> 00:34:01,600
packing on muscle before space flight as

1009
00:34:07,750 --> 00:34:04,840
muscle mass is affected in

1010
00:34:10,550 --> 00:34:07,760
space uh yeah so i certainly wouldn't

1011
00:34:12,310 --> 00:34:10,560
say it's packing on muscle um not trying

1012
00:34:14,310 --> 00:34:12,320
to do that it's it's a balanced approach

1013
00:34:16,470 --> 00:34:14,320

it's uh much like uh

1014

00:34:17,909 --> 00:34:16,480

the cross more the crossfit style of

1015

00:34:20,230 --> 00:34:17,919

workouts

1016

00:34:22,149 --> 00:34:20,240

i i would say what we do is we look at

1017

00:34:24,389 --> 00:34:22,159

from a training perspective we look at

1018

00:34:26,790 --> 00:34:24,399

each individual astronaut and we take

1019

00:34:28,470 --> 00:34:26,800

away strengths and weaknesses and we're

1020

00:34:30,230 --> 00:34:28,480

going to focus on weaknesses a little

1021

00:34:31,669 --> 00:34:30,240

bit more in their training and the

1022

00:34:33,510 --> 00:34:31,679

strengths we're not going to emphasize

1023

00:34:35,349 --> 00:34:33,520

as much so we try to get much more

1024

00:34:37,270 --> 00:34:35,359

balanced approach through strength

1025

00:34:39,669 --> 00:34:37,280

endurance power

1026

00:34:41,829 --> 00:34:39,679

anaerobic aerobic fitness agility

1027

00:34:44,149 --> 00:34:41,839

coordination any you throw out anything

1028

00:34:45,510 --> 00:34:44,159

dealing with athletics we're gonna we're

1029

00:34:46,710 --> 00:34:45,520

gonna try to make it as balanced as we

1030

00:34:48,550 --> 00:34:46,720

possibly can

1031

00:34:49,990 --> 00:34:48,560

and another probably an important part

1032

00:34:51,109 --> 00:34:50,000

is what's going to happen what that crew

1033

00:34:53,190 --> 00:34:51,119

member is going to need to do during

1034

00:34:54,310 --> 00:34:53,200

mission because for instance if it's a

1035

00:34:55,829 --> 00:34:54,320

crew member who's going to be doing

1036

00:34:57,190 --> 00:34:55,839

space walks there might be different

1037

00:34:59,349 --> 00:34:57,200

workouts i know especially for the

1038

00:35:00,630 --> 00:34:59,359

females right to make sure they've got

1039

00:35:01,750 --> 00:35:00,640

the upper body strength to do certain

1040

00:35:04,150 --> 00:35:01,760

tasks so that's something else that's

1041

00:35:06,790 --> 00:35:04,160

looked at briefly yes um and would you

1042

00:35:08,550 --> 00:35:06,800

say um on orbit and especially post

1043

00:35:09,910 --> 00:35:08,560

flight is even more critical as far as

1044

00:35:12,150 --> 00:35:09,920

the the training that you're doing with

1045

00:35:13,829 --> 00:35:12,160

the crew members well the post flight i

1046

00:35:16,150 --> 00:35:13,839

would say the the in flight just to

1047

00:35:17,510 --> 00:35:16,160

mitigate it and it's that is important

1048

00:35:19,829 --> 00:35:17,520

and the

1049

00:35:21,270 --> 00:35:19,839

more we can mitigate the easier the post

1050

00:35:22,550 --> 00:35:21,280

flight right it's going to be you know

1051
00:35:24,790 --> 00:35:22,560
they're going to recover much more

1052
00:35:26,550 --> 00:35:24,800
quickly so okay you know

1053
00:35:27,829 --> 00:35:26,560
and rich i definitely didn't want to

1054
00:35:30,230 --> 00:35:27,839
interrupt you so please go ahead with

1055
00:35:32,150 --> 00:35:30,240
your question no problem it's about the

1056
00:35:34,150 --> 00:35:32,160
apparatus that you guys use is it more

1057
00:35:36,310 --> 00:35:34,160
like a band tension

1058
00:35:37,910 --> 00:35:36,320
or what's the how does i don't know how

1059
00:35:39,190 --> 00:35:37,920
does it really work

1060
00:35:40,390 --> 00:35:39,200
yeah i don't know if i can actually

1061
00:35:43,190 --> 00:35:40,400
answer how it really works you should

1062
00:35:45,430 --> 00:35:43,200
see the thing it's pretty amazing

1063
00:35:47,670 --> 00:35:45,440

the folks that put this thing together

1064

00:35:50,550 --> 00:35:47,680

um it it actually

1065

00:35:52,790 --> 00:35:50,560

you know we we have a bar that that's

1066

00:35:54,390 --> 00:35:52,800

looks like you cut the the two ends off

1067

00:35:56,710 --> 00:35:54,400

of a wheat bar where you where you put

1068

00:35:58,390 --> 00:35:56,720

the weights and so from where your hands

1069

00:35:59,430 --> 00:35:58,400

are going and everything it looks very

1070

00:36:01,190 --> 00:35:59,440

similar

1071

00:36:02,390 --> 00:36:01,200

to what you're using on it on a daily

1072

00:36:04,230 --> 00:36:02,400

basis

1073

00:36:06,550 --> 00:36:04,240

but the difference comes in is how we

1074

00:36:09,589 --> 00:36:06,560

get that load and we actually have these

1075

00:36:11,349 --> 00:36:09,599

two chambers that we have a vacuum in

1076
00:36:12,710 --> 00:36:11,359
and so we're pulling against that vacuum

1077
00:36:15,990 --> 00:36:12,720
and we're able to

1078
00:36:17,750 --> 00:36:16,000
dial in how much weight we want um i

1079
00:36:20,710 --> 00:36:17,760
don't think we can probably get up to

1080
00:36:22,550 --> 00:36:20,720
the kind of weight you're lifting but

1081
00:36:24,310 --> 00:36:22,560
well you the other thing it goes up to

1082
00:36:26,390 --> 00:36:24,320
600 pounds so we can get up to 600

1083
00:36:28,150 --> 00:36:26,400
pounds on it awesome now now the thing

1084
00:36:29,910 --> 00:36:28,160
you got to realize though is that when

1085
00:36:32,069 --> 00:36:29,920
you get to space you you take away your

1086
00:36:34,630 --> 00:36:32,079
body weight right we have to at select

1087
00:36:36,710 --> 00:36:34,640
for squats we add back in 75 percent of

1088
00:36:37,829 --> 00:36:36,720

his body weight into whatever he squat

1089

00:36:38,950 --> 00:36:37,839

and one g

1090

00:36:41,030 --> 00:36:38,960

now you're putting now you're

1091

00:36:42,870 --> 00:36:41,040

pinpointing that one load just on that

1092

00:36:44,150 --> 00:36:42,880

back so now there's some back issues so

1093

00:36:45,589 --> 00:36:44,160

you kind of got to balance that a little

1094

00:36:46,870 --> 00:36:45,599

bit

1095

00:36:49,030 --> 00:36:46,880

yeah the other thing that's very

1096

00:36:51,270 --> 00:36:49,040

interesting about a red is that within

1097

00:36:52,630 --> 00:36:51,280

that vacuum canister we also we have

1098

00:36:55,670 --> 00:36:52,640

these little flywheels that kind of

1099

00:36:57,750 --> 00:36:55,680

rotate and spin and we use we add those

1100

00:36:59,990 --> 00:36:57,760

in to create like an inertia so you

1101
00:37:01,510 --> 00:37:00,000
almost get a gravity effect so you you

1102
00:37:03,270 --> 00:37:01,520
know how the you can feel the weight

1103
00:37:05,910 --> 00:37:03,280
changing direction it's not just a

1104
00:37:06,829 --> 00:37:05,920
constant this kind of solution yeah cool

1105
00:37:11,270 --> 00:37:06,839
yeah

1106
00:37:13,910 --> 00:37:11,280
i actually have a question i could throw

1107
00:37:15,910 --> 00:37:13,920
out there to to everybody um you know i

1108
00:37:17,510 --> 00:37:15,920
know uh sam and your involvement with

1109
00:37:18,950 --> 00:37:17,520
the let's move and and we're here

1110
00:37:20,950 --> 00:37:18,960
talking a little bit about the train

1111
00:37:22,790 --> 00:37:20,960
like an astronaut program

1112
00:37:25,430 --> 00:37:22,800
are there any other kind of activities

1113
00:37:27,430 --> 00:37:25,440

uh that that the rest of you are doing

1114

00:37:29,829 --> 00:37:27,440

uh to you know to try and help motivate

1115

00:37:31,990 --> 00:37:29,839

kids or working with kids or even adults

1116

00:37:34,150 --> 00:37:32,000

or anything like that that uh that i'm

1117

00:37:37,910 --> 00:37:34,160

not aware of and and you'd like to share

1118

00:37:42,310 --> 00:37:40,790

i guess i can answer first um i won't

1119

00:37:44,630 --> 00:37:42,320

take credit for doing it in an official

1120

00:37:46,230 --> 00:37:44,640

capacity or anything but i do try to get

1121

00:37:47,750 --> 00:37:46,240

to many high schools in many elementary

1122

00:37:49,030 --> 00:37:47,760

schools and talk about

1123

00:37:51,030 --> 00:37:49,040

health and fitness and that sort of

1124

00:37:53,990 --> 00:37:51,040

thing it drives me crazy when kids think

1125

00:37:55,750 --> 00:37:54,000

that uh playing wii is physical activity

1126

00:37:57,990 --> 00:37:55,760

you know i just want to keep these kids

1127

00:38:00,069 --> 00:37:58,000

outside you know play outside do some

1128

00:38:01,349 --> 00:38:00,079

kind of game um eat breakfast in the

1129

00:38:03,109 --> 00:38:01,359

morning before they go to school you

1130

00:38:05,750 --> 00:38:03,119

know just try to give them some kind of

1131

00:38:07,030 --> 00:38:05,760

incentive for for doing the right thing

1132

00:38:09,750 --> 00:38:07,040

you know one of the things that we've

1133

00:38:12,150 --> 00:38:09,760

been uh really talking up a lot is

1134

00:38:14,150 --> 00:38:12,160

making note of how

1135

00:38:15,750 --> 00:38:14,160

school physical education programs have

1136

00:38:17,589 --> 00:38:15,760

really been under attack especially in

1137

00:38:20,069 --> 00:38:17,599

tough budgetary times for our

1138

00:38:21,589 --> 00:38:20,079

governments listen i get that you know

1139

00:38:24,390 --> 00:38:21,599

school districts have to balance their

1140

00:38:25,430 --> 00:38:24,400

budgets just like everyone else does but

1141

00:38:27,030 --> 00:38:25,440

really the

1142

00:38:28,470 --> 00:38:27,040

the more we learn about it the more we

1143

00:38:31,670 --> 00:38:28,480

see that there's very much a connection

1144

00:38:34,150 --> 00:38:31,680

between uh physical activity and mental

1145

00:38:36,390 --> 00:38:34,160

performance in the classroom so that's

1146

00:38:38,230 --> 00:38:36,400

one of the causes that we champion very

1147

00:38:40,470 --> 00:38:38,240

strongly at men's health which is you

1148

00:38:43,750 --> 00:38:40,480

know defending physical education in our

1149

00:38:45,109 --> 00:38:43,760

schools and letting parents know that

1150

00:38:47,589 --> 00:38:45,119

that's as important a part of their

1151

00:38:49,109 --> 00:38:47,599

education as mathematics is

1152

00:38:51,750 --> 00:38:49,119

yeah that's an interesting point i know

1153

00:38:53,910 --> 00:38:51,760

for me just personally if i don't get my

1154

00:38:55,430 --> 00:38:53,920

workout in in the morning man mentally

1155

00:38:58,790 --> 00:38:55,440

the rest of the day is it's just not

1156

00:39:03,670 --> 00:39:01,349

so mike i have a question for you um

1157

00:39:05,190 --> 00:39:03,680

this is a huge part of what we do as

1158

00:39:08,150 --> 00:39:05,200

lead athletes and i'm sure jared and

1159

00:39:10,310 --> 00:39:08,160

rich are quite familiar with this but um

1160

00:39:12,310 --> 00:39:10,320

we you know we do a huge amount of

1161

00:39:15,030 --> 00:39:12,320

training volume throughout the day and

1162

00:39:18,470 --> 00:39:15,040

so when we're done training we obviously

1163

00:39:20,710 --> 00:39:18,480

have to help our body recover

1164

00:39:23,030 --> 00:39:20,720

so you know we do a lot of uh contrast

1165

00:39:25,750 --> 00:39:23,040

fast with um you know hot tub and cold

1166

00:39:28,870 --> 00:39:25,760

plunge where you uh subject yourself to

1167

00:39:30,550 --> 00:39:28,880

the wonderful task of a you know 105

1168

00:39:32,310 --> 00:39:30,560

degree hot tub

1169

00:39:34,310 --> 00:39:32,320

for two minutes and then you're into a

1170

00:39:36,230 --> 00:39:34,320

you know freezing cold tub of you know

1171

00:39:37,750 --> 00:39:36,240

45-50 degrees

1172

00:39:39,990 --> 00:39:37,760

which is not wonderful but you know it

1173

00:39:42,390 --> 00:39:40,000

helps the circulation and helps uh get

1174

00:39:44,069 --> 00:39:42,400

some galactic gas out of your body um

1175

00:39:46,230 --> 00:39:44,079

you know doing things like that to

1176
00:39:48,630 --> 00:39:46,240
getting massages so is there anything

1177
00:39:50,310 --> 00:39:48,640
you all do in space after you know after

1178
00:39:52,390 --> 00:39:50,320
a daily workout to help your body

1179
00:39:54,950 --> 00:39:52,400
recover

1180
00:39:56,310 --> 00:39:54,960
um well i'll have to uh i'll have to

1181
00:39:58,230 --> 00:39:56,320
talk to

1182
00:39:59,190 --> 00:39:58,240
my crewmates about the massage piece but

1183
00:40:03,829 --> 00:39:59,200
i

1184
00:40:06,069 --> 00:40:03,839
um

1185
00:40:08,069 --> 00:40:06,079
so you know i obviously i haven't i

1186
00:40:10,069 --> 00:40:08,079
haven't been up there yet so i'm not

1187
00:40:11,910 --> 00:40:10,079
quite sure i'm sure mark can add in here

1188
00:40:14,790 --> 00:40:11,920

but i have heard that the recovery time

1189

00:40:16,230 --> 00:40:14,800

actually up there is is quicker it's uh

1190

00:40:16,950 --> 00:40:16,240

it doesn't take as long when you have

1191

00:40:19,349 --> 00:40:16,960

that

1192

00:40:22,310 --> 00:40:19,359

real hard squat workout and your your

1193

00:40:24,710 --> 00:40:22,320

legs are just aching the next day

1194

00:40:26,790 --> 00:40:24,720

as far as i understand is oftentimes

1195

00:40:28,310 --> 00:40:26,800

that's not the case on orbits so

1196

00:40:30,870 --> 00:40:28,320

mark if you want to add on that well

1197

00:40:32,310 --> 00:40:30,880

yeah in orbit i mean you think of 22

1198

00:40:35,109 --> 00:40:32,320

hours out of the day you're floating

1199

00:40:37,750 --> 00:40:35,119

around with no weight or no load on your

1200

00:40:40,230 --> 00:40:37,760

body so the recovery is much quicker i

1201
00:40:42,630 --> 00:40:40,240
mean we do we do squatting and dead

1202
00:40:45,030 --> 00:40:42,640
lifting every single day seven days a

1203
00:40:46,950 --> 00:40:45,040
week for six months and we haven't had

1204
00:40:48,470 --> 00:40:46,960
any over training injuries or any muscle

1205
00:40:50,790 --> 00:40:48,480
tears or anything like that so the

1206
00:40:52,470 --> 00:40:50,800
recovery actually comes

1207
00:40:54,470 --> 00:40:52,480
pretty quickly

1208
00:40:55,589 --> 00:40:54,480
all right i really really hate to have

1209
00:40:57,510 --> 00:40:55,599
to wrap this up because i think it's

1210
00:40:59,430 --> 00:40:57,520
been an awesome discussion but we are

1211
00:41:01,030 --> 00:40:59,440
out of time and i want to thank all the

1212
00:41:01,910 --> 00:41:01,040
panelists i think this is really neat to

1213
00:41:03,430 --> 00:41:01,920

hear from all these different

1214

00:41:04,870 --> 00:41:03,440

perspectives and we should try to have

1215

00:41:06,309 --> 00:41:04,880

this hang out again

1216

00:41:08,870 --> 00:41:06,319

so we encourage everybody to follow

1217

00:41:11,109 --> 00:41:08,880

everyone who's training or preparing um

1218

00:41:13,109 --> 00:41:11,119

and mike for your mission so uh thanks

1219

00:41:14,150 --> 00:41:13,119

again everybody for joining and uh we

1220

00:41:15,510 --> 00:41:14,160

look forward to following your mission

1221

00:41:19,270 --> 00:41:15,520

in space thanks