

**The Skeptic Zone**  
**Show 293 - 1 June 2014**



**Fred the Cat**

1  
00:00:20,550 --> 00:00:09,090  
welcome to the skeptic zone the podcast

2  
00:00:29,210 --> 00:00:24,870  
oh and welcome to the skeptics own

3  
00:00:33,240 --> 00:00:29,220  
episode number 293 for the first of June

4  
00:00:35,760 --> 00:00:33,250  
2014 another month another month goes by

5  
00:00:37,650 --> 00:00:35,770  
the first of June richardsaunders here

6  
00:00:41,340 --> 00:00:37,660  
with you from Sydney Australia trying a

7  
00:00:45,600 --> 00:00:41,350  
new system this week for recording this

8  
00:00:47,729 --> 00:00:45,610  
intro I've got a really really nice

9  
00:00:50,009 --> 00:00:47,739  
sennheiser microphone and i've had for a

10  
00:00:52,410 --> 00:00:50,019  
while that I used to use in making

11  
00:00:54,390 --> 00:00:52,420  
videos which I've retrieved from the

12  
00:00:56,430 --> 00:00:54,400  
cupboard hooked it up to my zoom

13  
00:00:58,170 --> 00:00:56,440

microphone which I normally used to do

14

00:01:01,829 --> 00:00:58,180

the intros I'm standing now in the

15

00:01:06,800 --> 00:01:01,839

middle of Maya lounge dining room with

16

00:01:12,080 --> 00:01:06,810

the microphone on a large cat post and

17

00:01:16,980 --> 00:01:12,090

then sort of sitting inside a big old

18

00:01:20,370 --> 00:01:16,990

cup yeah and I'm standing here with my

19

00:01:24,390 --> 00:01:20,380

laptop in my arm so I can read my notes

20

00:01:26,160 --> 00:01:24,400

visualize that visualize that or you

21

00:01:29,010 --> 00:01:26,170

don't have to visualize that I mean you

22

00:01:30,599 --> 00:01:29,020

know if you don't want to I think I

23

00:01:33,569 --> 00:01:30,609

think I better tell you what's coming up

24

00:01:35,669 --> 00:01:33,579

on this week's show more from Iran sir

25

00:01:38,309 --> 00:01:35,679

given his recent trip to QED in

26  
00:01:42,179 --> 00:01:38,319  
Manchester question explore discover one

27  
00:01:44,910 --> 00:01:42,189  
of the premier skeptical scientific sort

28  
00:01:47,969 --> 00:01:44,920  
of reason conventions in the world I

29  
00:01:51,059 --> 00:01:47,979  
must say this week Ron chats to Nate

30  
00:01:53,520 --> 00:01:51,069  
Phelps now here's an interesting man

31  
00:01:56,370 --> 00:01:53,530  
he's the son of fred phelps the late

32  
00:02:00,719 --> 00:01:56,380  
fred phelps from the Westboro Baptist

33  
00:02:04,199 --> 00:02:00,729  
Church the people who still as far as I

34  
00:02:05,940 --> 00:02:04,209  
know protest things god hates signs

35  
00:02:08,190 --> 00:02:05,950  
you've probably seen those on the news

36  
00:02:10,350 --> 00:02:08,200  
and on the internet god hates this God

37  
00:02:13,410 --> 00:02:10,360  
hates that so Nate Phelps the son of

38  
00:02:17,100 --> 00:02:13,420

fred phelps lift that whole religious

39

00:02:19,320 --> 00:02:17,110

seen quite some time ago and i think

40

00:02:21,809 --> 00:02:19,330

you'll find this interview very

41

00:02:23,220 --> 00:02:21,819

interesting indeed to find out what it

42

00:02:24,660 --> 00:02:23,230

was like from his point of view from

43

00:02:26,880 --> 00:02:24,670

Nate's point of view growing up in this

44

00:02:29,820 --> 00:02:26,890

sort of environment and also we find out

45

00:02:31,289 --> 00:02:29,830

what he's doing now after that it's a

46

00:02:33,750 --> 00:02:31,299

wig in designs from our good friends at

47

00:02:36,780 --> 00:02:33,760

the Royal Institution of Australia ww

48

00:02:39,300 --> 00:02:36,790

you are I aus der dog today you and for

49

00:02:41,550 --> 00:02:39,310

all those people who went to the science

50

00:02:43,830 --> 00:02:41,560

of Doctor Who which was traveling around

51  
00:02:47,009 --> 00:02:43,840  
the country I'm sure you enjoyed it as

52  
00:02:49,800 --> 00:02:47,019  
much as I do thank you are IRS and BBC

53  
00:02:52,619 --> 00:02:49,810  
then after that I travel up to the Blue

54  
00:02:55,080 --> 00:02:52,629  
Mountains just west of Sydney for the

55  
00:02:58,830 --> 00:02:55,090  
day to do some filming for the

56  
00:03:01,020 --> 00:02:58,840  
vaccination Chronicles and thank you Joe

57  
00:03:04,710 --> 00:03:01,030  
alabaster a new report agile a bust of

58  
00:03:07,410 --> 00:03:04,720  
helping me up on the day being behind

59  
00:03:11,099 --> 00:03:07,420  
the scenes on the camera helping me with

60  
00:03:13,229 --> 00:03:11,109  
the script and thank you too Peter

61  
00:03:15,449 --> 00:03:13,239  
ratbags bowditch who was also there who

62  
00:03:19,020 --> 00:03:15,459  
I interviewed now after all the filming

63  
00:03:21,990 --> 00:03:19,030

is done we find a nice veranda and a

64

00:03:24,479 --> 00:03:22,000

nice old hotel and have a chat about the

65

00:03:26,369 --> 00:03:24,489

Blue Mountains and what it's like to

66

00:03:28,949 --> 00:03:26,379

live there in certain vaccination issues

67

00:03:31,500 --> 00:03:28,959

and what it's like to try to film must

68

00:03:33,300 --> 00:03:31,510

say I've had a little bit of that well

69

00:03:35,369 --> 00:03:33,310

I've had my share of a few unlucky

70

00:03:40,319 --> 00:03:35,379

things going on lately trying to film

71

00:03:42,390 --> 00:03:40,329

with noises going off and unfavorable

72

00:03:44,879 --> 00:03:42,400

lighting conditions and me for getting

73

00:03:47,099 --> 00:03:44,889

my script and we're getting there though

74

00:03:48,809 --> 00:03:47,109

we're getting there folks then to round

75

00:03:51,119 --> 00:03:48,819

off the show something completely

76

00:03:54,780 --> 00:03:51,129

different but very worth while listening

77

00:03:56,939 --> 00:03:54,790

to Maynard spooky action maynards going

78

00:04:01,949 --> 00:03:56,949

to be talking to dr. Peter Davies about

79

00:04:05,009 --> 00:04:01,959

I health and macular degeneration not

80

00:04:08,699 --> 00:04:05,019

quite a sceptical topic ok yes I'll

81

00:04:12,210 --> 00:04:08,709

grant you that but um really really

82

00:04:14,189 --> 00:04:12,220

interesting and really good advice dr.

83

00:04:16,649 --> 00:04:14,199

Peter Davies will give you really good

84

00:04:20,520 --> 00:04:16,659

advice about a very simple check you can

85

00:04:22,529 --> 00:04:20,530

do to test your eye health so let's put

86

00:04:25,620 --> 00:04:22,539

this one in the category of good science

87

00:04:28,140 --> 00:04:25,630

good scientific the base medicine in

88

00:04:32,820 --> 00:04:28,150

action that's to round off the show

89

00:04:34,080 --> 00:04:32,830

please visit [www.bucks.calm](http://www.bucks.calm) today you to

90

00:04:36,870 --> 00:04:34,090

find out more about our upcoming

91

00:04:39,300 --> 00:04:36,880

convention in November with the skeptics

92

00:04:42,209 --> 00:04:39,310

guide to the universe Dick Smith dr.

93

00:04:45,480 --> 00:04:42,219

Reggie dr. Carl Cruz menisci a cast of

94

00:04:47,100 --> 00:04:45,490

thousands cast of thousands tickets are

95

00:04:48,720 --> 00:04:47,110

on sale looking

96

00:04:50,130 --> 00:04:48,730

forward to that looking forward to

97

00:04:52,440 --> 00:04:50,140

catching up to a lot of my friends at

98

00:04:54,810 --> 00:04:52,450

the amazing meeting in Las Vegas it'll

99

00:04:56,790 --> 00:04:54,820

be so great to see James Randi once

100

00:04:59,160 --> 00:04:56,800

again and thank you for those people who

101  
00:05:03,060 --> 00:04:59,170  
do help the skeptic zone by chipping in

102  
00:05:05,310 --> 00:05:03,070  
via micro payments on paypal and if you

103  
00:05:09,290 --> 00:05:05,320  
want if you want to put a link on the

104  
00:05:13,530 --> 00:05:09,300  
skeptics own page at wwc a peg on TV

105  
00:05:18,030 --> 00:05:13,540  
I've put a few of my arm photographs of

106  
00:05:20,580 --> 00:05:18,040  
origami up on insta prints is the prints

107  
00:05:25,080 --> 00:05:20,590  
like Instagram insta prints where you

108  
00:05:27,540 --> 00:05:25,090  
can purchase a framed copy of some of my

109  
00:05:29,220 --> 00:05:27,550  
money foldings and things like that well

110  
00:05:31,020 --> 00:05:29,230  
if you're interested you can check that

111  
00:05:33,960 --> 00:05:31,030  
out and of course all proceeds go to

112  
00:05:35,370 --> 00:05:33,970  
help the skeptics own podcast well

113  
00:05:37,260 --> 00:05:35,380

that's all from me at the moment since

114

00:05:38,930 --> 00:05:37,270

i'm downstairs anyway there's no point

115

00:05:46,250 --> 00:05:38,940

in me running even further down stairs

116

00:05:48,870 --> 00:05:46,260

what's this this is a big jar of

117

00:05:53,330 --> 00:05:48,880

couscous haven't had that for a while

118

00:05:55,940 --> 00:05:53,340

hmm why not while I heat up and cook

119

00:05:57,990 --> 00:05:55,950

undo whatever you do with couscous I

120

00:06:18,890 --> 00:05:58,000

think it's a good with a bit of chili

121

00:06:30,450 --> 00:06:21,499

it'll take this with a grain of salt

122

00:06:32,999 --> 00:06:30,460

seas around ticket so i'm here with nate

123

00:06:36,809 --> 00:06:33,009

phelps ladies known to many skeptics as

124

00:06:39,330 --> 00:06:36,819

the survivor of the Westboro Baptist

125

00:06:41,670 --> 00:06:39,340

Church showing the Sun in the Sun I'm

126  
00:06:46,670 --> 00:06:41,680  
sorry I had to say that way I'm duh and

127  
00:06:50,640 --> 00:06:46,680  
a son of the late Fred Phelps and I

128  
00:06:52,709 --> 00:06:50,650  
would like to first ask you about how

129  
00:06:57,330 --> 00:06:52,719  
you enjoy QED here and what's your

130  
00:07:00,450 --> 00:06:57,340  
impression is so far wet no actually I

131  
00:07:04,769 --> 00:07:00,460  
like a lot I love the people the accent

132  
00:07:06,659 --> 00:07:04,779  
I'm a people watcher so I sitting in the

133  
00:07:11,399 --> 00:07:06,669  
bar and i watch people go by it it's

134  
00:07:13,800 --> 00:07:11,409  
interesting that you see certain British

135  
00:07:15,300 --> 00:07:13,810  
characters I don't know if I'm saying

136  
00:07:18,930 --> 00:07:15,310  
that right but certain looks that are

137  
00:07:21,350 --> 00:07:18,940  
very British bowler hats no not that I'm

138  
00:07:23,550 --> 00:07:21,360

talking about like facial features and

139

00:07:27,360 --> 00:07:23,560

you know like this there's a lot of the

140

00:07:32,070 --> 00:07:27,370

tall whether they call them gingers yeah

141

00:07:34,019 --> 00:07:32,080

and just a lot of the stereotype ideas

142

00:07:36,450 --> 00:07:34,029

that i have about the British and I see

143

00:07:38,309 --> 00:07:36,460

them in the people right but other than

144

00:07:39,689 --> 00:07:38,319

that this is this is nothing like I

145

00:07:44,969 --> 00:07:39,699

thought it would be when you see some of

146

00:07:49,920 --> 00:07:44,979

the old British look out on the street

147

00:07:52,050 --> 00:07:49,930

but this is a very metropolitan country

148

00:07:54,689 --> 00:07:52,060

now compared to what you were you

149

00:07:56,309 --> 00:07:54,699

typically thinking all right typically

150

00:07:58,079 --> 00:07:56,319

think so if you have you had a lot of

151

00:08:01,170 --> 00:07:58,089

discussions here with different people

152

00:08:02,490 --> 00:08:01,180

yeah okay so and and found out a lot of

153

00:08:05,670 --> 00:08:02,500

differences like I have to actually go

154

00:08:08,159 --> 00:08:05,680

to the bar to particular great instead

155

00:08:10,320 --> 00:08:08,169

of this the waitress coming to the table

156

00:08:12,390 --> 00:08:10,330

that's just not right you know in

157

00:08:15,209 --> 00:08:12,400

Australia you can't buy alcohol and

158

00:08:17,490 --> 00:08:15,219

supermarket you can now you cannot you

159

00:08:19,020 --> 00:08:17,500

cannot there's special specialized shops

160

00:08:20,790 --> 00:08:19,030

called bottle shops

161

00:08:24,150 --> 00:08:20,800

see that you have actually Canada's that

162

00:08:26,370 --> 00:08:24,160

way too oh cool yeah yeah but England's

163

00:08:28,080 --> 00:08:26,380

not she's the one that started all this

164

00:08:30,330 --> 00:08:28,090

nonsense and then they then they renege

165

00:08:33,150 --> 00:08:30,340

and they leave it up to us all these

166

00:08:34,260 --> 00:08:33,160

yeah we'll be all the outcome if they

167

00:08:35,700 --> 00:08:34,270

know you say you mentioned Kennedy

168

00:08:37,740 --> 00:08:35,710

you're not leaving Canada I mean on to

169

00:08:39,240 --> 00:08:37,750

it you know originally from no no I from

170

00:08:42,260 --> 00:08:39,250

the states yeah born and raised in

171

00:08:44,310 --> 00:08:42,270

Topeka where my were the churches and

172

00:08:47,570 --> 00:08:44,320

spent 25 years in Southern California

173

00:08:51,660 --> 00:08:47,580

and then moved up to Canada and in

174

00:08:53,340 --> 00:08:51,670

December of 2005 so moving to canada in

175

00:08:57,060 --> 00:08:53,350

december that's quite brave but apart

176  
00:08:59,640 --> 00:08:57,070  
from that but apart from that about from

177  
00:09:02,220 --> 00:08:59,650  
that say you grew up in the u.s. in in

178  
00:09:04,260 --> 00:09:02,230  
the defective I don't know whether

179  
00:09:08,760 --> 00:09:04,270  
famous or infamous or both this is the

180  
00:09:11,130 --> 00:09:08,770  
correct term but Phelps family you were

181  
00:09:14,070 --> 00:09:11,140  
one of 13 if i remember correctly yeah

182  
00:09:15,540 --> 00:09:14,080  
so would you care to tell you tell me a

183  
00:09:18,150 --> 00:09:15,550  
little bit about that big your

184  
00:09:21,570 --> 00:09:18,160  
experience yeah it's of course it's

185  
00:09:24,150 --> 00:09:21,580  
impossible to encapsulate at all in the

186  
00:09:28,380 --> 00:09:24,160  
short period of time so i would say that

187  
00:09:32,060 --> 00:09:28,390  
it was it was intense it was dogmatic

188  
00:09:35,430 --> 00:09:32,070

and it was violent both physically and

189

00:09:37,500 --> 00:09:35,440

psychologically of course you don't know

190

00:09:41,330 --> 00:09:37,510

that growing up there it just was what

191

00:09:43,980 --> 00:09:41,340

it was but when you have that many

192

00:09:49,860 --> 00:09:43,990

children running around and then my

193

00:09:52,890 --> 00:09:49,870

father for all of his his faults was a

194

00:09:54,690 --> 00:09:52,900

very energetic person it was constantly

195

00:09:57,410 --> 00:09:54,700

coming up with new ideas and do things

196

00:10:00,990 --> 00:09:57,420

that he wanted to do and then he would

197

00:10:04,200 --> 00:10:01,000

he would in script the kids so for

198

00:10:07,590 --> 00:10:04,210

instance he was he got really sick

199

00:10:09,720 --> 00:10:07,600

because he'd let himself going his

200

00:10:11,540 --> 00:10:09,730

weight was high in and came back from

201  
00:10:13,590 --> 00:10:11,550  
some trip and ended up in the hospital

202  
00:10:15,840 --> 00:10:13,600  
so he comes out of the hospital and

203  
00:10:20,259 --> 00:10:15,850  
suddenly he's on a mission to get

204  
00:10:22,519 --> 00:10:20,269  
healthy again and that translated to

205  
00:10:26,540 --> 00:10:22,529  
well at that time I think it would have

206  
00:10:27,949 --> 00:10:26,550  
been about 10 of us 10 kids and my mom

207  
00:10:30,769 --> 00:10:27,959  
and my dad and we're out running around

208  
00:10:33,740 --> 00:10:30,779  
the local high school track 10 miles a

209  
00:10:35,090 --> 00:10:33,750  
night within two or three months you

210  
00:10:38,540 --> 00:10:35,100  
know so that it was that kind of

211  
00:10:43,970 --> 00:10:38,550  
anything he did it would it was manic

212  
00:10:46,040 --> 00:10:43,980  
and it was extreme and and so that's

213  
00:10:48,800 --> 00:10:46,050

kind of how we learned about the world

214

00:10:50,150 --> 00:10:48,810

we were in but you mentioned in an

215

00:10:52,540 --> 00:10:50,160

earlier discussion that we had that he

216

00:10:55,550 --> 00:10:52,550

actually went to public school yep

217

00:10:59,809 --> 00:10:55,560

that's interesting because my father had

218

00:11:04,069 --> 00:10:59,819

had such control over the the family in

219

00:11:05,600 --> 00:11:04,079

the church at least this is how I look

220

00:11:10,519 --> 00:11:05,610

at it now because a lot of people

221

00:11:12,290 --> 00:11:10,529

expressed surprise that that we weren't

222

00:11:14,210 --> 00:11:12,300

cloistered we weren't home schooled on

223

00:11:16,369 --> 00:11:14,220

that concept it just was never an issue

224

00:11:19,369 --> 00:11:16,379

but what he did do is he reached out to

225

00:11:21,139 --> 00:11:19,379

the schools and he made darn sure that

226

00:11:24,259 --> 00:11:21,149

they weren't doing anything he didn't

227

00:11:27,559 --> 00:11:24,269

want him to do so like when I was in

228

00:11:31,240 --> 00:11:27,569

grade school if they they were still

229

00:11:34,090 --> 00:11:31,250

doing like Christmas carols and and

230

00:11:37,460 --> 00:11:34,100

having events in the classrooms

231

00:11:39,170 --> 00:11:37,470

surrounding Christmastime and my father

232

00:11:42,499 --> 00:11:39,180

you know we didn't celebrate Christmas

233

00:11:44,870 --> 00:11:42,509

so he saw to it that every time they

234

00:11:48,110 --> 00:11:44,880

were going to do anything Christmasy

235

00:11:49,699 --> 00:11:48,120

that they had to first remove any Phelps

236

00:11:51,410 --> 00:11:49,709

kids from the classroom and send us down

237

00:11:54,470 --> 00:11:51,420

to the library and they did what they

238

00:11:59,960 --> 00:11:54,480

did and we went back and why you know so

239

00:12:01,610 --> 00:11:59,970

different Christmas I am NOT asking you

240

00:12:04,970 --> 00:12:01,620

for the reason I'm asking you for the

241

00:12:10,639 --> 00:12:04,980

excuse no yeah it seems to me like it

242

00:12:12,740 --> 00:12:10,649

was is the Bible didn't charge us to

243

00:12:15,530 --> 00:12:12,750

celebrate his birth but rather his death

244

00:12:17,600 --> 00:12:15,540

that was kind of it was and it had its

245

00:12:20,179 --> 00:12:17,610

roots in paganism and that kind of stuff

246

00:12:23,119 --> 00:12:20,189

so that was the reasons that he gave

247

00:12:26,059 --> 00:12:23,129

that we worship we weren't supposed to

248

00:12:27,410 --> 00:12:26,069

be celebrating the birth of Christ yeah

249

00:12:29,520 --> 00:12:27,420

I'm not sure if that's true or not if

250

00:12:32,530 --> 00:12:29,530

you look at you read the Bible properly

251

00:12:34,660 --> 00:12:32,540

I've stopped at the end of the Old

252

00:12:36,220 --> 00:12:34,670

Testament sir that's right you don't

253

00:12:40,240 --> 00:12:36,230

have you don't have access Ivan bad

254

00:12:45,130 --> 00:12:40,250

accident not allowed to open that well

255

00:12:47,140 --> 00:12:45,140

sure but this sounds like this I mean

256

00:12:50,080 --> 00:12:47,150

there was definitely a different kind of

257

00:12:52,180 --> 00:12:50,090

theology involved here and there's these

258

00:12:53,740 --> 00:12:52,190

two things I would like you to perhaps

259

00:12:56,380 --> 00:12:53,750

tell me a little bit more about first of

260

00:12:57,550 --> 00:12:56,390

all about how that theology reflector

261

00:12:59,590 --> 00:12:57,560

Denis what what what did you actually

262

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

know and what was simply part of the

263

00:13:03,690 --> 00:13:01,610

environment and the other thing I wanted

264

00:13:06,760 --> 00:13:03,700

to to know is more around the

265

00:13:09,400 --> 00:13:06,770

relationship between the Phelps family

266

00:13:11,800 --> 00:13:09,410

in westborough baptist church in terms

267

00:13:15,130 --> 00:13:11,810

of is it just one in the same or is that

268

00:13:17,560 --> 00:13:15,140

other extensions that is just the mummy

269

00:13:20,140 --> 00:13:17,570

daddy and 13 kids always if he's more

270

00:13:21,400 --> 00:13:20,150

than that you could yeah well let me let

271

00:13:22,900 --> 00:13:21,410

me talk on that first and we'll go back

272

00:13:25,840 --> 00:13:22,910

so i can get clarity on that first

273

00:13:28,480 --> 00:13:25,850

question the whole time i was growing up

274

00:13:31,840 --> 00:13:28,490

there it was it was primarily my family

275

00:13:34,870 --> 00:13:31,850

and then there was two smaller families

276

00:13:37,690 --> 00:13:34,880

one was the haka burgers no really

277

00:13:40,450 --> 00:13:37,700

seriously holcomb barbers and okay and

278

00:13:42,570 --> 00:13:40,460

and the other family was the Davises and

279

00:13:47,530 --> 00:13:42,580

they had the haka barters had three kids

280

00:13:52,030 --> 00:13:47,540

Davis has had four so that was it that

281

00:13:53,920 --> 00:13:52,040

was so seven eight nine eleven there was

282

00:13:57,070 --> 00:13:53,930

about 25 people in that church on a

283

00:13:59,470 --> 00:13:57,080

typical sunday from time to time people

284

00:14:03,580 --> 00:13:59,480

would come and go it didn't last very

285

00:14:04,690 --> 00:14:03,590

long folks what's often times someone

286

00:14:06,250 --> 00:14:04,700

would show up for the morning service

287

00:14:07,540 --> 00:14:06,260

and we never saw him again you know they

288

00:14:09,990 --> 00:14:07,550

would be driving by and they'd see the

289

00:14:14,010 --> 00:14:10,000

sign and decide to

290

00:14:16,050 --> 00:14:14,020

to check it out and I remember on more

291

00:14:18,330 --> 00:14:16,060

than one occasion the old men get this

292

00:14:20,400 --> 00:14:18,340

kind of wry grin on his face when

293

00:14:23,370 --> 00:14:20,410

someone new would come in and he would

294

00:14:25,230 --> 00:14:23,380

make a show of taking his sermon that he

295

00:14:27,920 --> 00:14:25,240

was going to preach and putting it in

296

00:14:31,530 --> 00:14:27,930

the pulpit and then pulling out his

297

00:14:33,180 --> 00:14:31,540

helps toast and it's basically scare him

298

00:14:35,040 --> 00:14:33,190

off right he was going to hit him with

299

00:14:36,480 --> 00:14:35,050

both barrels and then if they didn't

300

00:14:39,210 --> 00:14:36,490

stick around they weren't they weren't

301  
00:14:41,340 --> 00:14:39,220  
put yet anyway right so they were we

302  
00:14:43,830 --> 00:14:41,350  
were pretty much the church was the

303  
00:14:48,210 --> 00:14:43,840  
phelps family church was fred phelps

304  
00:14:49,470 --> 00:14:48,220  
really yeah so yeah so the perhaps the

305  
00:14:51,480 --> 00:14:49,480  
second question but I would be very

306  
00:14:53,160 --> 00:14:51,490  
interested to follow that up with what's

307  
00:14:54,900 --> 00:14:53,170  
going to happen now but but let's let's

308  
00:14:57,030 --> 00:14:54,910  
fish down what it was the first question

309  
00:14:58,830 --> 00:14:57,040  
you can see about theology about what

310  
00:15:01,290 --> 00:14:58,840  
were we touch so yeah so I mean

311  
00:15:04,200 --> 00:15:01,300  
obviously your father had a his own

312  
00:15:05,430 --> 00:15:04,210  
peculiar theology the question is how

313  
00:15:07,140 --> 00:15:05,440

much of it was simply part of the

314

00:15:09,810 --> 00:15:07,150

environment almost I would call it

315

00:15:11,940 --> 00:15:09,820

cultural and how much was consciously

316

00:15:13,860 --> 00:15:11,950

religious in a sense of you are aware of

317

00:15:17,220 --> 00:15:13,870

the reasoning behind it you are aware of

318

00:15:18,690 --> 00:15:17,230

what the intent was so how much work was

319

00:15:22,520 --> 00:15:18,700

of it was really religious and how much

320

00:15:25,140 --> 00:15:22,530

which was was just populated a life on

321

00:15:28,079 --> 00:15:25,150

Sundays it was a hundred percent

322

00:15:33,920 --> 00:15:28,089

religious and my father was very serious

323

00:15:37,110 --> 00:15:33,930

about teaching everyone in that church

324

00:15:39,210 --> 00:15:37,120

what the Bible had to say so he would

325

00:15:45,770 --> 00:15:39,220

spend hours and he would get into the

326

00:15:48,270 --> 00:15:45,780

nuances and and you know parsing the the

327

00:15:51,870 --> 00:15:48,280

the meaning of that word or this word to

328

00:15:54,210 --> 00:15:51,880

end and was very particular about how

329

00:15:58,770 --> 00:15:54,220

then we behaved and expressed that in

330

00:16:02,190 --> 00:15:58,780

our in our lives right for instance I

331

00:16:04,470 --> 00:16:02,200

talked about his interpretation of the

332

00:16:07,480 --> 00:16:04,480

word

333

00:16:10,600 --> 00:16:07,490

long we're talking about women's hair

334

00:16:13,420 --> 00:16:10,610

and I believe it's in first Corinthians

335

00:16:16,030 --> 00:16:13,430

he said that word was was improperly

336

00:16:19,300 --> 00:16:16,040

translated it should actually say it be

337

00:16:22,900 --> 00:16:19,310

translated as uncut so women just didn't

338

00:16:26,740 --> 00:16:22,910

cut their hair so those kind of details

339

00:16:29,080 --> 00:16:26,750

were strictly adhere to but what was

340

00:16:31,960 --> 00:16:29,090

very interesting was once we got out of

341

00:16:38,010 --> 00:16:31,970

the church and it was monday morning

342

00:16:45,070 --> 00:16:42,990

ineffective we were at adhering to the

343

00:16:48,850 --> 00:16:45,080

doctrines so to speak that were they

344

00:16:51,910 --> 00:16:48,860

were taught on Sundays my father had he

345

00:16:53,560 --> 00:16:51,920

had a mouth on him and that was an issue

346

00:16:55,690 --> 00:16:53,570

that you know we were taught as kids you

347

00:16:57,160 --> 00:16:55,700

don't you know you're certain words he

348

00:16:58,660 --> 00:16:57,170

had no qualms about doing that he had no

349

00:17:00,940 --> 00:16:58,670

qualms about treating people a certain

350

00:17:04,660 --> 00:17:00,950

way and to me that was part and parcel

351  
00:17:05,980 --> 00:17:04,670  
of what being a Christian was and there

352  
00:17:08,020 --> 00:17:05,990  
certainly worked only a plenty of

353  
00:17:10,900 --> 00:17:08,030  
passages he may not have spent a lot of

354  
00:17:13,480 --> 00:17:10,910  
time stressing but they were there about

355  
00:17:16,449 --> 00:17:13,490  
how you treated people right so there

356  
00:17:19,000 --> 00:17:16,459  
was from the very beginning once I was

357  
00:17:20,890 --> 00:17:19,010  
at an age of awareness and being able to

358  
00:17:23,650 --> 00:17:20,900  
to look and say what wait a minute this

359  
00:17:25,960 --> 00:17:23,660  
doesn't fit there was a lot of hypocrisy

360  
00:17:29,950 --> 00:17:25,970  
between the words and the actions right

361  
00:17:35,910 --> 00:17:29,960  
so he was very sincere about getting it

362  
00:17:39,910 --> 00:17:35,920  
right dr. Lee but there was a curious

363  
00:17:41,380 --> 00:17:39,920

disconnect and how he applied it in the

364

00:17:47,170 --> 00:17:41,390

way he behaved in there in

365

00:17:49,390 --> 00:17:47,180

in the real world and he's a most

366

00:17:52,980 --> 00:17:49,400

listeners would know he's passed away

367

00:17:57,430 --> 00:17:52,990

recently few weeks ago yeah the 19th

368

00:17:59,470 --> 00:17:57,440

through the 19th of March yeah so this

369

00:18:04,680 --> 00:17:59,480

is something we've discussed a couple of

370

00:18:11,020 --> 00:18:07,750

obviously he was your father I mean

371

00:18:13,720 --> 00:18:11,030

regardless of the long disconnects and

372

00:18:15,520 --> 00:18:13,730

the fact that you disagreed on on

373

00:18:18,610 --> 00:18:15,530

probably more than you would have agreed

374

00:18:20,260 --> 00:18:18,620

on yeah it was your father and how was

375

00:18:26,050 --> 00:18:20,270

your response how did you feel about

376

00:18:28,330 --> 00:18:26,060

that well when you decide to leave that

377

00:18:33,700 --> 00:18:28,340

church you or ostracize you're cut off

378

00:18:36,430 --> 00:18:33,710

so effectively on my 18th birthday or

379

00:18:38,980 --> 00:18:36,440

soon thereafter I was I no longer had a

380

00:18:41,740 --> 00:18:38,990

family you know well I had a brother in

381

00:18:46,570 --> 00:18:41,750

her butt but the lion's share my family

382

00:18:48,130 --> 00:18:46,580

was was cut off so at first you go

383

00:18:49,750 --> 00:18:48,140

through a process of saying well not

384

00:18:51,040 --> 00:18:49,760

really you know there's we can make this

385

00:18:52,150 --> 00:18:51,050

work out in that kind of stuff and then

386

00:18:54,670 --> 00:18:52,160

you get to a point your life from your

387

00:18:56,370 --> 00:18:54,680

lies no this isn't this isn't coming

388

00:18:59,860 --> 00:18:56,380

back it's not going to happen so

389

00:19:02,140 --> 00:18:59,870

somewhere in that first ten years or so

390

00:19:03,610 --> 00:19:02,150

I went through a process of a deliberate

391

00:19:05,890 --> 00:19:03,620

process of mourning the loss of my

392

00:19:10,540 --> 00:19:05,900

family because that in fact is what I

393

00:19:13,840 --> 00:19:10,550

had experienced right and so I can point

394

00:19:18,520 --> 00:19:13,850

to that and then I also point to just

395

00:19:22,480 --> 00:19:18,530

the passage of time and you know I don't

396

00:19:25,090 --> 00:19:22,490

know if it's you you get it calloused or

397

00:19:27,640 --> 00:19:25,100

whatever but somehow you can start to

398

00:19:31,390 --> 00:19:27,650

let go of those feelings and those that

399

00:19:35,230 --> 00:19:31,400

those needs those that desire to be

400

00:19:37,060 --> 00:19:35,240

connected so I I was convinced when he

401  
00:19:38,530 --> 00:19:37,070  
that when he passed there wasn't going

402  
00:19:39,370 --> 00:19:38,540  
to be any emotions it was simply going

403  
00:19:41,710 --> 00:19:39,380  
to be in a

404  
00:19:46,210 --> 00:19:41,720  
that came and went there was a little

405  
00:19:50,890 --> 00:19:46,220  
bit again I think it's you know when you

406  
00:19:52,510 --> 00:19:50,900  
stay he was your father I I struggle

407  
00:19:55,180 --> 00:19:52,520  
with that a little bit because i'm not

408  
00:19:56,800 --> 00:19:55,190  
quite sure what that means I think that

409  
00:20:00,730 --> 00:19:56,810  
it means something to the person that

410  
00:20:07,720 --> 00:20:00,740  
says it yeah but to say he was my father

411  
00:20:09,790 --> 00:20:07,730  
I mean so he was there when when certain

412  
00:20:12,190 --> 00:20:09,800  
things happen door he was there he was

413  
00:20:14,590 --> 00:20:12,200

he was someone I I turned to for advice

414

00:20:16,870 --> 00:20:14,600

and for inspiration and all that kind of

415

00:20:18,370 --> 00:20:16,880

that's those are the kind of things that

416

00:20:21,300 --> 00:20:18,380

we mean when we say he was your father

417

00:20:25,350 --> 00:20:21,310

right and I didn't have any of that so

418

00:20:27,880 --> 00:20:25,360

the emotion was more about what

419

00:20:29,170 --> 00:20:27,890

recognizing intellectually that there's

420

00:20:35,350 --> 00:20:29,180

something that I could have had that I

421

00:20:36,670 --> 00:20:35,360

didn't and morning that but other than

422

00:20:39,400 --> 00:20:36,680

that there really hasn't been that much

423

00:20:41,290 --> 00:20:39,410

and what was the public response I mean

424

00:20:43,060 --> 00:20:41,300

you must have live in Europe prominent

425

00:20:46,000 --> 00:20:43,070

public the public speaker you're right

426

00:20:48,220 --> 00:20:46,010

you're in cfi Canada but what was the

427

00:20:52,150 --> 00:20:48,230

how would did the public respond to you

428

00:20:55,270 --> 00:20:52,160

and not directly to you well directly to

429

00:20:59,590 --> 00:20:55,280

me the the overwhelming majority of it

430

00:21:03,880 --> 00:20:59,600

was support and kindness and well wishes

431

00:21:05,770 --> 00:21:03,890

and that I think there were some places

432

00:21:08,230 --> 00:21:05,780

that I went that were you know I I had

433

00:21:10,960 --> 00:21:08,240

to go searching for it where there was

434

00:21:15,700 --> 00:21:10,970

as I would expect a lot of bitterness

435

00:21:17,920 --> 00:21:15,710

and a lot of anger and recrimination

436

00:21:20,890 --> 00:21:17,930

towards my father and and I understand

437

00:21:22,690 --> 00:21:20,900

that you know I don't you know people

438

00:21:24,280 --> 00:21:22,700

talking about spitting on its grave and

439

00:21:27,970 --> 00:21:24,290

that kind of stuff I understand the

440

00:21:29,950 --> 00:21:27,980

anger I just I can't I can't condone it

441

00:21:32,080 --> 00:21:29,960

because I don't think it's best for the

442

00:21:34,720 --> 00:21:32,090

people who are experiencing it to be

443

00:21:38,290 --> 00:21:34,730

honest with you so but by and large it

444

00:21:39,730 --> 00:21:38,300

was very positive for me I didn't there

445

00:21:43,150 --> 00:21:39,740

wasn't there wasn't anything that was

446

00:21:44,590 --> 00:21:43,160

shocking that I came across as far as

447

00:21:46,240 --> 00:21:44,600

what people had to say about it and

448

00:21:47,480 --> 00:21:46,250

what's going to happen to us but public

449

00:21:51,320 --> 00:21:47,490

baptist church

450

00:21:54,410 --> 00:21:51,330

no no every bean in touch with him look

451  
00:21:57,410 --> 00:21:54,420  
like none of them that are there I tried

452  
00:22:00,710 --> 00:21:57,420  
to when I found out he was it was sick

453  
00:22:04,850 --> 00:22:00,720  
and and that didn't work out but they

454  
00:22:09,770 --> 00:22:04,860  
are their public images that you know

455  
00:22:12,350 --> 00:22:09,780  
this is we don't worship the dead this

456  
00:22:13,730 --> 00:22:12,360  
has happened and we move on there's some

457  
00:22:16,480 --> 00:22:13,740  
evidence that he was kicked out of the

458  
00:22:18,590 --> 00:22:16,490  
church so they may have already

459  
00:22:21,560 --> 00:22:18,600  
emotionally disconnected from him long

460  
00:22:24,500 --> 00:22:21,570  
before he passed so would one of your

461  
00:22:25,820 --> 00:22:24,510  
brothers take oh oh well I'm not sure

462  
00:22:29,980 --> 00:22:25,830  
who's going to take over there's a

463  
00:22:32,450 --> 00:22:29,990

there's a group of eight men who are a

464

00:22:35,870 --> 00:22:32,460

Board of Elders it was just recently

465

00:22:40,400 --> 00:22:35,880

formed in the last year or two and they

466

00:22:42,020 --> 00:22:40,410

apparently are heading things up it

467

00:22:45,049 --> 00:22:42,030

could could end up being Steve drain

468

00:22:49,700 --> 00:22:45,059

who's the one of the more public figures

469

00:22:53,680 --> 00:22:49,710

in the and the and the picket campaign I

470

00:22:56,000 --> 00:22:53,690

know that they have have muzzled surely

471

00:22:58,880 --> 00:22:56,010

she would never have been able to be a

472

00:23:02,270 --> 00:22:58,890

leader anyway but they've taken it a

473

00:23:05,080 --> 00:23:02,280

step further and actually silencer and

474

00:23:10,490 --> 00:23:05,090

Shirley's my sister who has has been the

475

00:23:14,120 --> 00:23:10,500

the public persona of the Westboro

476

00:23:15,650 --> 00:23:14,130

campaign for years I mean other than

477

00:23:18,680 --> 00:23:15,660

Fred Phelps everybody talked about

478

00:23:21,470 --> 00:23:18,690

Shirley phelps-roper and and because in

479

00:23:26,060 --> 00:23:21,480

fact she was that next generation of the

480

00:23:30,140 --> 00:23:26,070

angry vitriolic you know face screwed up

481

00:23:31,790 --> 00:23:30,150

in anger at the world and a lot of folks

482

00:23:33,950 --> 00:23:31,800

thought she would be the next leader

483

00:23:36,010 --> 00:23:33,960

right and and I was and I would tell him

484

00:23:38,690 --> 00:23:36,020

no she can't because she's one long yeah

485

00:23:43,220 --> 00:23:38,700

so

486

00:23:47,180 --> 00:23:43,230

in the last couple years that they

487

00:23:50,050 --> 00:23:47,190

deliberately took action to silence her

488

00:23:55,490 --> 00:23:50,060

to put her in her place if you will and

489

00:23:58,610 --> 00:23:55,500

so now it's it's Steve drain or my

490

00:24:02,960 --> 00:23:58,620

brother Tim seemed to be the two that

491

00:24:06,020 --> 00:24:02,970

are most likely to head the church okay

492

00:24:09,980 --> 00:24:06,030

now let's move on a little bit all right

493

00:24:11,810 --> 00:24:09,990

because you have left that church more

494

00:24:13,670 --> 00:24:11,820

than a few weeks ago yeah and you have

495

00:24:16,820 --> 00:24:13,680

done if you this thing if you think this

496

00:24:18,530 --> 00:24:16,830

should do one or two known i do i'm not

497

00:24:21,110 --> 00:24:18,540

proud of but yeah let's talk about the

498

00:24:24,620 --> 00:24:21,120

things that you are proud so let's let's

499

00:24:27,470 --> 00:24:24,630

cut right to the present day you are you

500

00:24:31,220 --> 00:24:27,480

you have a role in see if I Canada what

501  
00:24:33,470 --> 00:24:31,230  
is that see if I Canada started like six

502  
00:24:36,740 --> 00:24:33,480  
years ago and we have I think I want to

503  
00:24:38,660 --> 00:24:36,750  
say 10 branches now and i run the

504  
00:24:41,240 --> 00:24:38,670  
calgary branch i'm the executive

505  
00:24:45,830 --> 00:24:41,250  
director of cfi calgary canada canada

506  
00:24:52,930 --> 00:24:45,840  
calgary and we have speakers you know

507  
00:24:55,400 --> 00:24:52,940  
and we do events for their community and

508  
00:24:56,960 --> 00:24:55,410  
we've we've made quite a presence for

509  
00:24:59,780 --> 00:24:56,970  
ourselves there in the last four years

510  
00:25:01,730 --> 00:24:59,790  
since i started doing that and I also

511  
00:25:03,290 --> 00:25:01,740  
serve on the board of directors for a

512  
00:25:07,370 --> 00:25:03,300  
group called recovering from religion

513  
00:25:09,260 --> 00:25:07,380

which is what it sounds like it's it's

514

00:25:11,900 --> 00:25:09,270

like you know people get together much

515

00:25:14,780 --> 00:25:11,910

like the AAA format you'll meet at

516

00:25:18,020 --> 00:25:14,790

someone's home or at some location and

517

00:25:21,080 --> 00:25:18,030

and they just they use each other to

518

00:25:23,630 --> 00:25:21,090

help process and deal with their journey

519

00:25:25,640 --> 00:25:23,640

away from some destructive religious

520

00:25:30,260 --> 00:25:25,650

experience that they've they've been in

521

00:25:33,210 --> 00:25:30,270

and and then I go around and speak all

522

00:25:38,520 --> 00:25:33,220

over North America and and

523

00:25:41,549 --> 00:25:38,530

now I can say in Europe so yeah good

524

00:25:42,899 --> 00:25:41,559

stuff and you also you're also

525

00:25:45,510 --> 00:25:42,909

campaigns on issues that are not

526

00:25:48,270 --> 00:25:45,520

directly related to skepticism but are

527

00:25:51,570 --> 00:25:48,280

some somewhat related to your history

528

00:25:56,310 --> 00:25:51,580

yeah well yeah I go to I speak a lot it

529

00:26:01,320 --> 00:25:56,320

at LGBT events the support LGBT groups I

530

00:26:03,840 --> 00:26:01,330

speak out I write about it and yeah I

531

00:26:05,880 --> 00:26:03,850

advocate for LGBT rights in North

532

00:26:07,620 --> 00:26:05,890

America of course Canada it's legal

533

00:26:09,930 --> 00:26:07,630

there to get married but you know

534

00:26:12,870 --> 00:26:09,940

just below us the u.s. is still fighting

535

00:26:18,270 --> 00:26:12,880

that battle so a lot of opportunity in

536

00:26:21,480 --> 00:26:18,280

that area and since you are active in

537

00:26:22,470 --> 00:26:21,490

the promotion of LGBT rights i'm just

538

00:26:24,450 --> 00:26:22,480

wondering whether you've ever

539

00:26:29,299 --> 00:26:24,460

encountered a non-religious argument

540

00:26:34,350 --> 00:26:29,309

against LGBT rights i can say i have not

541

00:26:37,320 --> 00:26:34,360

in fact there was a proposition 8 trial

542

00:26:38,730 --> 00:26:37,330

in California when maybe this is for an

543

00:26:41,250 --> 00:26:38,740

Australian audience the professional

544

00:26:45,000 --> 00:26:41,260

profits proposition 8 was a was a ballot

545

00:26:47,669 --> 00:26:45,010

initiative in California to make gay

546

00:26:50,100 --> 00:26:47,679

marriage basically make it impossible

547

00:26:52,380 --> 00:26:50,110

make it a constitutional amendment that

548

00:26:53,640 --> 00:26:52,390

only a man woman can get married but

549

00:26:56,580 --> 00:26:53,650

that's to the constitution of the state

550

00:26:58,169 --> 00:26:56,590

not yesterday night radius yeah and it's

551  
00:26:59,460 --> 00:26:58,179  
probably also important to note for

552  
00:27:03,630 --> 00:26:59,470  
those who don't know that in the United

553  
00:27:05,180 --> 00:27:03,640  
States citizens can actually put on the

554  
00:27:08,399 --> 00:27:05,190  
ballot in the state elections

555  
00:27:10,620 --> 00:27:08,409  
propositions that will then will they

556  
00:27:12,630 --> 00:27:10,630  
should then become law it will carry the

557  
00:27:14,490 --> 00:27:12,640  
weight of law typically a lot of those

558  
00:27:16,740 --> 00:27:14,500  
didn't have to be vetted by some legal

559  
00:27:19,169 --> 00:27:16,750  
challenge because oftentimes a way it's

560  
00:27:22,770 --> 00:27:19,179  
written language of that proposition is

561  
00:27:25,770 --> 00:27:22,780  
is not going to withstand you know some

562  
00:27:28,200 --> 00:27:25,780  
legal challenge so but nevertheless it's

563  
00:27:29,909 --> 00:27:28,210

an important tool in the election

564

00:27:31,049 --> 00:27:29,919

process and the states so this

565

00:27:33,240 --> 00:27:31,059

proposition would put on the ballot

566

00:27:36,630 --> 00:27:33,250

ended up being funded in large part by

567

00:27:39,900 --> 00:27:36,640

the Mormon Church and it passed narrowly

568

00:27:43,410 --> 00:27:39,910

so then it went

569

00:27:47,490 --> 00:27:43,420

it became a legal battle and the trial

570

00:27:50,820 --> 00:27:47,500

lawyer or the trial judge in that trial

571

00:27:54,780 --> 00:27:50,830

basically got to hear all of the the

572

00:27:56,910 --> 00:27:54,790

popular arguments against gay marriage

573

00:27:59,760 --> 00:27:56,920

as part of the evidence that was

574

00:28:05,610 --> 00:27:59,770

presented at the trial and and in his

575

00:28:08,520 --> 00:28:05,620

written decision where he overturned

576

00:28:11,250 --> 00:28:08,530

proposition 8 he said that he basically

577

00:28:14,370 --> 00:28:11,260

defeated each one of those arguments for

578

00:28:19,430 --> 00:28:14,380

lack of evidence arguments such as it's

579

00:28:24,320 --> 00:28:19,440

not good for the children that that

580

00:28:31,290 --> 00:28:24,330

marriage is primarily for reproduction

581

00:28:33,210 --> 00:28:31,300

that homosexuality is a choice all these

582

00:28:35,040 --> 00:28:33,220

arguments that are out there that were

583

00:28:37,140 --> 00:28:35,050

supposed to be the justifications

584

00:28:40,470 --> 00:28:37,150

nevermind what the Bible says they were

585

00:28:45,860 --> 00:28:40,480

soundly defeated and he his what he

586

00:28:49,650 --> 00:28:45,870

wrote in his his decision is like a

587

00:28:51,900 --> 00:28:49,660

study in how to respond to all the

588

00:28:54,630 --> 00:28:51,910

popular arguments against gay marriage

589

00:28:56,820 --> 00:28:54,640

so there's nothing out there and and he

590

00:28:59,280 --> 00:28:56,830

concluded rightfully so that really what

591

00:29:00,750 --> 00:28:59,290

you're left with in is just a lot of

592

00:29:02,490 --> 00:29:00,760

people who just don't feel good about it

593

00:29:05,970 --> 00:29:02,500

because of some religious belief that

594

00:29:10,410 --> 00:29:05,980

they old and that's not how we make long

595

00:29:12,660 --> 00:29:10,420

and in America so now you can get

596

00:29:15,450 --> 00:29:12,670

married in California is this the kind

597

00:29:17,820 --> 00:29:15,460

of thing that could be challenged by go

598

00:29:19,590 --> 00:29:17,830

to the Supreme Court oh it isn't there I

599

00:29:22,350 --> 00:29:19,600

think they did try and ultimately the

600

00:29:23,970 --> 00:29:22,360

Supreme Court rejected hearing it did go

601  
00:29:28,470 --> 00:29:23,980  
to the appellate level and was was

602  
00:29:31,530 --> 00:29:28,480  
upheld and so

603  
00:29:34,560 --> 00:29:31,540  
and then they tried to get it before the

604  
00:29:37,260 --> 00:29:34,570  
Supreme Court and they rejected so it's

605  
00:29:41,700 --> 00:29:37,270  
settled it is settled yeah good okay

606  
00:29:43,500 --> 00:29:41,710  
there kid okay so night thank you very

607  
00:29:44,520 --> 00:29:43,510  
much for giving me some of your time it

608  
00:29:46,289 --> 00:29:44,530  
was a pleasure meeting you and speak

609  
00:30:01,799 --> 00:29:46,299  
yeah it's my pleasure to her thank you

610  
00:30:03,810 --> 00:30:01,809  
much astronomy cast it takes a fact

611  
00:30:05,880 --> 00:30:03,820  
space journey through the cosmos as it

612  
00:30:08,549 --> 00:30:05,890  
offers listeners weekly discussions on

613  
00:30:11,520 --> 00:30:08,559

astronomical topics ranging from planets

614

00:30:13,919 --> 00:30:11,530

to cosmology hosted by Fraser Cain of

615

00:30:14,789 --> 00:30:13,929

Universe Today and myself dr. Pamela gay

616

00:30:17,460 --> 00:30:14,799

of southern illinois university

617

00:30:19,320 --> 00:30:17,470

edwardsville this show brings the

618

00:30:21,750 --> 00:30:19,330

questions of an avid astronomy lover

619

00:30:23,850 --> 00:30:21,760

directly to an astronomer together

620

00:30:25,380 --> 00:30:23,860

Fraser and I explore what is known and

621

00:30:28,140 --> 00:30:25,390

being discovered about the universe

622

00:30:30,240 --> 00:30:28,150

around us join us each week as we take a

623

00:30:40,010 --> 00:30:30,250

face space journey through the cosmos at

624

00:30:44,820 --> 00:30:42,630

welcome to a week in science from our

625

00:30:47,850 --> 00:30:44,830

aisles bringing you the science you need

626

00:30:50,460 --> 00:30:47,860

to know when winter comes I crank up the

627

00:30:52,860 --> 00:30:50,470

heat and wrap myself in warm clothes but

628

00:31:00,480 --> 00:30:52,870

men you don't seem to do the same so why

629

00:31:02,490 --> 00:31:00,490

is one theory is that women have a

630

00:31:04,230 --> 00:31:02,500

higher core body temperature than men

631

00:31:06,750 --> 00:31:04,240

this would create a bigger difference

632

00:31:09,060 --> 00:31:06,760

between our internal temperature and the

633

00:31:11,400 --> 00:31:09,070

outside ambient temperature which makes

634

00:31:13,260 --> 00:31:11,410

us more sensitive to the cold but

635

00:31:15,300 --> 00:31:13,270

scientific evidence for this is a bit

636

00:31:17,910 --> 00:31:15,310

shaky with some studies finding a

637

00:31:19,530 --> 00:31:17,920

difference and others not overall it

638

00:31:21,540 --> 00:31:19,540

seems that women could have a slightly

639

00:31:23,250 --> 00:31:21,550

higher core temperature but we're only

640

00:31:25,380 --> 00:31:23,260

talking about point two degrees

641

00:31:27,090 --> 00:31:25,390

difference when you take into account

642

00:31:30,150 --> 00:31:27,100

other factors that change how people

643

00:31:32,760 --> 00:31:30,160

feel the cold like age Fitness hunger

644

00:31:36,930 --> 00:31:32,770

and tiredness this difference is really

645

00:31:38,970 --> 00:31:36,940

insignificant so if core body

646

00:31:41,190 --> 00:31:38,980

temperature isn't a factor then what's

647

00:31:43,020 --> 00:31:41,200

happening well it turns out that women

648

00:31:45,810 --> 00:31:43,030

have a lower skin temperature than men

649

00:31:47,940 --> 00:31:45,820

meaning that we feel the cold more women

650

00:31:50,160 --> 00:31:47,950

tend to have a higher skin surface area

651  
00:31:53,010 --> 00:31:50,170  
to volume ratio because we're generally

652  
00:31:54,960 --> 00:31:53,020  
smaller overall to stop too much heat

653  
00:31:57,540 --> 00:31:54,970  
loss through this surface area we have a

654  
00:31:59,850 --> 00:31:57,550  
lower flow of blood to the skin leading

655  
00:32:01,530 --> 00:31:59,860  
to a lower skin temperature this means

656  
00:32:03,600 --> 00:32:01,540  
that it takes a much smaller drop in

657  
00:32:06,210 --> 00:32:03,610  
temperature for our skin sensors to

658  
00:32:08,400 --> 00:32:06,220  
detect that we're feeling cold women's

659  
00:32:10,800 --> 00:32:08,410  
bodies also seem to be better at moving

660  
00:32:13,290 --> 00:32:10,810  
warm blood away from our extremities to

661  
00:32:15,600 --> 00:32:13,300  
protect internal organs that's why our

662  
00:32:18,120 --> 00:32:15,610  
hands and feet can be three degrees

663  
00:32:20,640 --> 00:32:18,130

cooler than men's and it seems

664

00:32:23,130 --> 00:32:20,650

counterintuitive but our extra layers of

665

00:32:25,200 --> 00:32:23,140

fat actually insulate our skin from our

666

00:32:27,870 --> 00:32:25,210

warm core creating the sensation of

667

00:32:30,570 --> 00:32:27,880

coldness that's also why larger people

668

00:32:34,100 --> 00:32:30,580

tend to feel the cold more and now for

669

00:32:36,780 --> 00:32:34,110

fast facts about our body temperatures

670

00:32:39,240 --> 00:32:36,790

women need to get much hotter than men

671

00:32:41,130 --> 00:32:39,250

before they start to sweat and even then

672

00:32:44,100 --> 00:32:41,140

they sweat much less which is probably

673

00:32:46,140 --> 00:32:44,110

linked to testosterone levels your body

674

00:32:48,330 --> 00:32:46,150

temperature cycles up and down by a

675

00:32:50,280 --> 00:32:48,340

degree or so throughout the day being

676  
00:32:52,860 --> 00:32:50,290  
lowest a couple of hours before you wake

677  
00:32:55,650 --> 00:32:52,870  
up and highest in the late afternoon our

678  
00:32:58,560 --> 00:32:55,660  
definition of a normal temperature came

679  
00:33:01,160 --> 00:32:58,570  
in 1851 from German physician Carl

680  
00:33:04,380 --> 00:33:01,170  
bundle ich who took armpit readings from

681  
00:33:06,690 --> 00:33:04,390  
25,000 patients and pregnancy and

682  
00:33:08,520 --> 00:33:06,700  
hormonal contraceptives can increase a

683  
00:33:13,350 --> 00:33:08,530  
woman's core temperature by one degree

684  
00:33:15,000 --> 00:33:13,360  
Celsius that's it for this week in

685  
00:33:17,250 --> 00:33:15,010  
science if you want to find out more

686  
00:33:21,510 --> 00:33:17,260  
about why women are cool and men are hot

687  
00:33:23,760 --> 00:33:21,520  
go to the RAF website RI aus org dot AE

688  
00:33:25,830 --> 00:33:23,770

plus don't forget to follow us on

689

00:33:28,169 --> 00:33:25,840

twitter at our oils and like us on

690

00:33:39,060 --> 00:33:28,179

Facebook I'm cure and groom and we'll

691

00:33:52,930 --> 00:33:51,070

on Maynard calm don't you hey you coming

692

00:33:55,000 --> 00:33:52,940

to you live from the exciting bleep

693

00:33:57,430 --> 00:33:55,010

point road frou-frou cafe it's mr. Tim

694

00:33:59,290 --> 00:33:57,440

Ferguson good morning good evening good

695

00:34:01,360 --> 00:33:59,300

afternoon and all the times in between

696

00:34:02,710 --> 00:34:01,370

and my name is Mina we've got it all

697

00:34:04,660 --> 00:34:02,720

here we've got dogs that we've got

698

00:34:07,180 --> 00:34:04,670

screaming babies we've got pouting

699

00:34:09,490 --> 00:34:07,190

waiters I've heard that ghosts can only

700

00:34:12,310 --> 00:34:09,500

travel in straight lines and they can't

701  
00:34:14,080 --> 00:34:12,320  
jump I know in Feng Shui you did usually

702  
00:34:16,510 --> 00:34:14,090  
a mirror or something and so the evil

703  
00:34:18,010 --> 00:34:16,520  
can't turn and get into your house they

704  
00:34:19,930 --> 00:34:18,020  
put something there we'll have you heard

705  
00:34:22,360 --> 00:34:19,940  
about ghosts and their physical ability

706  
00:34:25,660 --> 00:34:22,370  
I do know that they cannot jump they

707  
00:34:27,670 --> 00:34:25,670  
won't yup they refuse to jump actually

708  
00:34:30,340 --> 00:34:27,680  
recalcitrant that's their problem after

709  
00:34:32,290 --> 00:34:30,350  
a lifetime of jumping you don't want to

710  
00:34:34,480 --> 00:34:32,300  
spend the afterworld being asked

711  
00:34:37,000 --> 00:34:34,490  
repeatedly come on I would jump over

712  
00:34:39,100 --> 00:34:37,010  
that if you can walk through walls why

713  
00:34:41,920 --> 00:34:39,110

would you want to jump there seem to be

714

00:34:45,520 --> 00:34:41,930

a set of rules that a bit great gray

715

00:34:48,070 --> 00:34:45,530

there one is ghost gazans do they happen

716

00:34:50,290 --> 00:34:48,080

I mean I don't want to be fighting

717

00:34:52,630 --> 00:34:50,300

myself in the afterworld where there is

718

00:34:56,170 --> 00:34:52,640

no orgasm there is no point in being

719

00:34:58,210 --> 00:34:56,180

alive without orgasms and daytime TV I

720

00:35:19,079 --> 00:34:58,220

want both of those in the afterworld on

721

00:35:25,900 --> 00:35:23,199

glorious bloom out katoomba i mean--can

722

00:35:28,059 --> 00:35:25,910

to rhyme with joe alabaster hello John

723

00:35:31,209 --> 00:35:28,069

hello Richard how are you I want some

724

00:35:34,569 --> 00:35:31,219

more evidence please haha and Peter bout

725

00:35:36,640 --> 00:35:34,579

at oh oh oh now I've come up here and

726  
00:35:38,529 --> 00:35:36,650  
you both been helping me today filming

727  
00:35:40,749 --> 00:35:38,539  
the vaccination chronicles bits of it

728  
00:35:43,120 --> 00:35:40,759  
and i'm pleased to say that it's almost

729  
00:35:45,339 --> 00:35:43,130  
all the filming's almost done now we had

730  
00:35:47,019 --> 00:35:45,349  
an interesting morning joe we filmed

731  
00:35:48,729 --> 00:35:47,029  
about half of it than we had to film it

732  
00:35:51,249 --> 00:35:48,739  
all again but you were very patient with

733  
00:35:52,959 --> 00:35:51,259  
me fluffing my lines or am I said it

734  
00:35:55,359 --> 00:35:52,969  
made me feel a little bit better about

735  
00:35:56,890 --> 00:35:55,369  
me fluffing my lines for my statement on

736  
00:36:00,160 --> 00:35:56,900  
the skeptics home frankly it was

737  
00:36:02,319 --> 00:36:00,170  
fantastic and then I it's a very serious

738  
00:36:06,219 --> 00:36:02,329

topic I mean I was doing all these lines

739

00:36:08,259 --> 00:36:06,229

about childhood diseases and people you

740

00:36:10,779 --> 00:36:08,269

know have it it was very serious stuff

741

00:36:12,099 --> 00:36:10,789

and then looking at I'd fluff a line

742

00:36:13,959 --> 00:36:12,109

then you'd look at me and then you'd

743

00:36:15,849 --> 00:36:13,969

start to smirk behind the camera and I'd

744

00:36:18,249 --> 00:36:15,859

lose the plot but this is all part of

745

00:36:21,309 --> 00:36:18,259

filming I think it was actually a lot of

746

00:36:22,900 --> 00:36:21,319

fun I did enjoy it I'm happen please it

747

00:36:24,189 --> 00:36:22,910

was the course there was the job with

748

00:36:25,900 --> 00:36:24,199

the camera person and then microphone

749

00:36:28,569 --> 00:36:25,910

person to try and make the talent laughs

750

00:36:29,650 --> 00:36:28,579

while I was nothing serious I mean I

751

00:36:31,059 --> 00:36:29,660

don't know how many times I've something

752

00:36:32,319 --> 00:36:31,069

doing crazy antics while I'm trying to

753

00:36:35,319 --> 00:36:32,329

keep a straight face while talking to

754

00:36:37,420 --> 00:36:35,329

camera and we've that was in a lot of

755

00:36:39,579 --> 00:36:37,430

Parker than we came here to the what is

756

00:36:41,859 --> 00:36:39,589

it the Carrington Harrington a famous

757

00:36:45,729 --> 00:36:41,869

old hotel here in the Kitumba we're

758

00:36:50,559 --> 00:36:45,739

sitting out here on the was the balcony

759

00:36:51,999 --> 00:36:50,569

the veranda the the veranda um another

760

00:36:53,620 --> 00:36:52,009

thing that occurred to me and I always

761

00:36:55,299 --> 00:36:53,630

forget this but always remember again

762

00:36:57,339 --> 00:36:55,309

when I'm filming is you start to do some

763

00:36:59,499 --> 00:36:57,349

something to camera and then a plane

764

00:37:01,569 --> 00:36:59,509

comes then the dog box and then the

765

00:37:03,670 --> 00:37:01,579

truck decides to go up the hill and then

766

00:37:06,880 --> 00:37:03,680

and then another train comes along as

767

00:37:09,430 --> 00:37:06,890

I'm even now we've just finished filming

768

00:37:11,920 --> 00:37:09,440

a segment with Peter and about two

769

00:37:15,350 --> 00:37:11,930

minutes later

770

00:37:19,550 --> 00:37:15,360

this music appears from nowhere buskers

771

00:37:23,180 --> 00:37:19,560

with drums down on the street it's all

772

00:37:24,680 --> 00:37:23,190

part of filming and you were relating a

773

00:37:25,850 --> 00:37:24,690

story Peter which you can tell our

774

00:37:28,850 --> 00:37:25,860

listeners now then give them a sneak

775

00:37:31,760 --> 00:37:28,860

preview about we were talking about a

776

00:37:33,140 --> 00:37:31,770

time when polio is a real menacing our

777

00:37:35,870 --> 00:37:33,150

society and you were telling us a story

778

00:37:37,820 --> 00:37:35,880

about kids hurting their legs yeah well

779

00:37:40,610 --> 00:37:37,830

I'm some old enough remember when Polly

780

00:37:43,250 --> 00:37:40,620

I was a dreadful scare my cousin Phillip

781

00:37:45,050 --> 00:37:43,260

its top of me is younger than me he fell

782

00:37:47,330 --> 00:37:45,060

over one day and heard his leg his

783

00:37:49,520 --> 00:37:47,340

parents panicked because first thought

784

00:37:51,920 --> 00:37:49,530

anybody's mind palio took the doctor he

785

00:37:53,390 --> 00:37:51,930

was ok two days later his very best

786

00:37:55,850 --> 00:37:53,400

friend Frank he lived two streets away

787

00:37:57,980 --> 00:37:55,860

same experience fell over hurt his leg

788

00:38:00,530 --> 00:37:57,990

his parents took him to the doctor he

789

00:38:02,270 --> 00:38:00,540

had polio Frank died in 2012 he spent

790

00:38:05,090 --> 00:38:02,280

his life in a wheelchair people forget

791

00:38:06,830 --> 00:38:05,100

how bad those diseases why were because

792

00:38:09,020 --> 00:38:06,840

they haven't seen them I've seen people

793

00:38:10,940 --> 00:38:09,030

in iron lungs I've seen children in my

794

00:38:12,650 --> 00:38:10,950

primary school class will be had to

795

00:38:14,840 --> 00:38:12,660

modify a games because their calipers on

796

00:38:17,810 --> 00:38:14,850

their legs I don't want to ever see this

797

00:38:19,730 --> 00:38:17,820

stuff come back yeah and now that we

798

00:38:21,110 --> 00:38:19,740

have we can be thankful now that they

799

00:38:22,370 --> 00:38:21,120

found the answer to some of these things

800

00:38:25,310 --> 00:38:22,380

they've got her these dreadful diseases

801  
00:38:27,230 --> 00:38:25,320  
that they no longer a problem polio in

802  
00:38:28,760 --> 00:38:27,240  
fact because it's only carried by humans

803  
00:38:31,190 --> 00:38:28,770  
can be rude can be wiped out of the way

804  
00:38:33,380 --> 00:38:31,200  
the smallpox was and hopefully will do

805  
00:38:35,870 --> 00:38:33,390  
it but suppose we walked out 2003 yes

806  
00:38:37,610 --> 00:38:35,880  
Edinburgh yes but it keeps coming back

807  
00:38:39,050 --> 00:38:37,620  
and at the moment it's really only bad

808  
00:38:40,190 --> 00:38:39,060  
in two countries but the trouble is

809  
00:38:42,110 --> 00:38:40,200  
they're two countries which have

810  
00:38:44,570 --> 00:38:42,120  
refugees coming out of them you know

811  
00:38:46,220 --> 00:38:44,580  
other parts of the world so hopefully

812  
00:38:49,220 --> 00:38:46,230  
it'll will never see it come back the

813  
00:38:50,330 --> 00:38:49,230

way it ever did but we're only we can

814

00:38:53,060 --> 00:38:50,340

only be a year away if we stop

815

00:38:55,400 --> 00:38:53,070

vaccinating now and we still get polio

816

00:38:57,740 --> 00:38:55,410

vaccination in Australia if we were to

817

00:38:59,180 --> 00:38:57,750

stop up now we could have epidemics of

818

00:39:00,470 --> 00:38:59,190

polio back in Australia in the other

819

00:39:02,870 --> 00:39:00,480

states within a year yeah yeah I

820

00:39:05,480 --> 00:39:02,880

wouldn't at all be surprised if that was

821

00:39:07,160 --> 00:39:05,490

that could happen and incidentally it's

822

00:39:08,330 --> 00:39:07,170

a disease with lasting consequences so

823

00:39:10,550 --> 00:39:08,340

it's not something if you get and you

824

00:39:12,770 --> 00:39:10,560

ought to get over it or you Disick will

825

00:39:14,330 --> 00:39:12,780

you get it it's something which can

826

00:39:15,950 --> 00:39:14,340

protect you for life because your power

827

00:39:17,640 --> 00:39:15,960

paralysis in your lungs which is why

828

00:39:20,240 --> 00:39:17,650

they are lungs within you and I

829

00:39:22,370 --> 00:39:20,250

ago you and I were in Melbourne for a

830

00:39:24,870 --> 00:39:22,380

skeptical event at the melbourne museum

831

00:39:27,029 --> 00:39:24,880

site week Boris this week and we were

832

00:39:29,130 --> 00:39:27,039

both there on the skeptic the Victorian

833

00:39:30,599 --> 00:39:29,140

skeptics had to stand I remember and at

834

00:39:32,519 --> 00:39:30,609

some stage during the proceedings you

835

00:39:35,250 --> 00:39:32,529

and I ducked away and had a look at the

836

00:39:37,549 --> 00:39:35,260

museum and we found in a museum and iron

837

00:39:39,569 --> 00:39:37,559

lung they actually had an exhibition of

838

00:39:42,569 --> 00:39:39,579

specific about polio they had an iron

839

00:39:44,190 --> 00:39:42,579

lung which had been donated by somebody

840

00:39:46,890 --> 00:39:44,200

who and the thing had been painted up in

841

00:39:48,329 --> 00:39:46,900

red and black because the person who was

842

00:39:50,160 --> 00:39:48,339

in it was a follower of the Essendon

843

00:39:51,690 --> 00:39:50,170

Football team and his parents had

844

00:39:53,130 --> 00:39:51,700

painted up in his football team colors

845

00:39:54,900 --> 00:39:53,140

and the football team had contributed to

846

00:39:56,339 --> 00:39:54,910

the cost of running it if I had laid

847

00:39:58,380 --> 00:39:56,349

calipers and all sorts of things in this

848

00:40:00,990 --> 00:39:58,390

exhibition know so it was such a

849

00:40:03,839 --> 00:40:01,000

poignant moment to think that we had to

850

00:40:07,319 --> 00:40:03,849

go to a museum to see an iron lung and

851  
00:40:10,349 --> 00:40:07,329  
these things wants just part of everyday

852  
00:40:12,779 --> 00:40:10,359  
life almost or the society knew about

853  
00:40:14,970 --> 00:40:12,789  
them being but I had them I didn't learn

854  
00:40:16,289 --> 00:40:14,980  
to swim when I was a child and the whole

855  
00:40:18,359 --> 00:40:16,299  
cohort of children didn't learn to swim

856  
00:40:19,890 --> 00:40:18,369  
because swimming pools were seen as a

857  
00:40:21,750 --> 00:40:19,900  
place where Polly I word spread that

858  
00:40:24,000 --> 00:40:21,760  
parent wouldn't take their children to

859  
00:40:26,519 --> 00:40:24,010  
public swimming pools and so we had

860  
00:40:27,599 --> 00:40:26,529  
throughout several years if you want to

861  
00:40:30,120 --> 00:40:27,609  
learn to swim you had to go to a private

862  
00:40:31,529 --> 00:40:30,130  
school somewhere or I've made League of

863  
00:40:33,059 --> 00:40:31,539

the butcher that you could not go for

864

00:40:34,710 --> 00:40:33,069

the public swimming pool he could if

865

00:40:36,420 --> 00:40:34,720

nobody did because of this fear that's

866

00:40:38,430 --> 00:40:36,430

that's that's astonishing things you

867

00:40:40,410 --> 00:40:38,440

don't even think about now you've got a

868

00:40:43,349 --> 00:40:40,420

couple of young kids who I just met

869

00:40:46,200 --> 00:40:43,359

today and they're the Lightwood Oscars

870

00:40:48,750 --> 00:40:46,210

such a chatterbox he's lovely Oscar is

871

00:40:51,900 --> 00:40:48,760

four and Daphne is three years old just

872

00:40:55,079 --> 00:40:51,910

yes I did absolutely delightful kids but

873

00:40:56,880 --> 00:40:55,089

as a as a mum of some young kids

874

00:40:58,829 --> 00:40:56,890

yourself and we know when you hear these

875

00:41:01,680 --> 00:40:58,839

stories and I know that when I was doing

876

00:41:03,990 --> 00:41:01,690

my lines to camera yeah and when you

877

00:41:06,569 --> 00:41:04,000

weren't smirking which we did I have to

878

00:41:07,380 --> 00:41:06,579

admit we got the guilt because it's

879

00:41:09,180 --> 00:41:07,390

something that you do when you're

880

00:41:10,620 --> 00:41:09,190

filming but I could look at the look on

881

00:41:13,589 --> 00:41:10,630

your face when I was delivering some

882

00:41:15,690 --> 00:41:13,599

lines about there was an article I read

883

00:41:18,990 --> 00:41:15,700

about whooping cough yeah and a child

884

00:41:21,480 --> 00:41:19,000

coughing and breaking your neck and I

885

00:41:24,150 --> 00:41:21,490

can see the look on your face it's

886

00:41:27,029 --> 00:41:24,160

difficult I mean before having children

887

00:41:28,329 --> 00:41:27,039

I was rather affected by these things

888

00:41:33,039 --> 00:41:28,339

anyway

889

00:41:36,249 --> 00:41:33,049

but yeah it's maybe a bit more personal

890

00:41:38,739 --> 00:41:36,259

now it's really hard um but your kids

891

00:41:40,900 --> 00:41:38,749

were born up here yes they were actually

892

00:41:42,609 --> 00:41:40,910

and that was one of my worries i'll

893

00:41:43,989 --> 00:41:42,619

admit having children in the blue

894

00:41:46,079 --> 00:41:43,999

mountains because i was quite aware of

895

00:41:48,459 --> 00:41:46,089

the low vaccination rates up here

896

00:41:49,930 --> 00:41:48,469

particularly when they were under six

897

00:41:51,819 --> 00:41:49,940

months and not fully immunized for

898

00:41:54,849 --> 00:41:51,829

whooping cough you were terrifying did

899

00:41:57,009 --> 00:41:54,859

you have anybody putting any sort of

900

00:41:58,660 --> 00:41:57,019

information your anti-vaccination you

901  
00:42:03,519 --> 00:41:58,670  
information your way being up here or

902  
00:42:07,959 --> 00:42:03,529  
was it well um no I I was already very

903  
00:42:09,999 --> 00:42:07,969  
much probe ax um have been throughout my

904  
00:42:12,609 --> 00:42:10,009  
life actually because when I was a child

905  
00:42:14,019 --> 00:42:12,619  
I knew a chap who had polio and wasn't

906  
00:42:20,259 --> 00:42:14,029  
an iron lung which is a bit of a rarity

907  
00:42:24,069 --> 00:42:20,269  
um but yeah no I i have come across anti

908  
00:42:25,749 --> 00:42:24,079  
vax people none of them have really

909  
00:42:27,999 --> 00:42:25,759  
tried to bring it up with me I don't

910  
00:42:31,589 --> 00:42:28,009  
know if it's because they know that I am

911  
00:42:35,109 --> 00:42:31,599  
an advocate for vaccination of here um

912  
00:42:38,109 --> 00:42:35,119  
but I had a falling out with somebody in

913  
00:42:42,120 --> 00:42:38,119

my mother's group who was very much

914

00:42:44,920 --> 00:42:42,130

insistent that Meryl stories views

915

00:42:46,390 --> 00:42:44,930

specifically meritorious views should be

916

00:42:48,640 --> 00:42:46,400

heard and that there are two sides to

917

00:42:51,190 --> 00:42:48,650

the story and we had a little bit of

918

00:42:56,289 --> 00:42:51,200

awkwardness in her mother's group now

919

00:42:59,019 --> 00:42:56,299

after that um also my son is one of his

920

00:43:00,880 --> 00:42:59,029

best friends um is from a family that

921

00:43:03,219 --> 00:43:00,890

doesn't vaccinate and that's a very

922

00:43:05,950 --> 00:43:03,229

strange thing to negotiate socially

923

00:43:09,430 --> 00:43:05,960

really um I want him to have his

924

00:43:11,529 --> 00:43:09,440

friendships and such so we we just tend

925

00:43:14,049 --> 00:43:11,539

not to speak about it um the other

926  
00:43:16,450 --> 00:43:14,059  
family is aware of my position and why I

927  
00:43:19,180 --> 00:43:16,460  
hold it and I'm aware of theirs and why

928  
00:43:20,979 --> 00:43:19,190  
they hold it and you know it's your

929  
00:43:23,979 --> 00:43:20,989  
birth of this area up in the Blue

930  
00:43:25,329 --> 00:43:23,989  
Mountains Oh what is it about this area

931  
00:43:27,849 --> 00:43:25,339  
I mean it's it's got a reputation

932  
00:43:29,349 --> 00:43:27,859  
friendly being a little bit what's the

933  
00:43:33,069 --> 00:43:29,359  
word I'm looking for alternatively

934  
00:43:35,319 --> 00:43:33,079  
hippie-ish and why is that I have no I'm

935  
00:43:38,420 --> 00:43:35,329  
actually um again I've also all muck

936  
00:43:40,260 --> 00:43:38,430  
left you had been a real genuine hippie

937  
00:43:42,870 --> 00:43:40,270  
which is probably why I end up in the

938  
00:43:45,180 --> 00:43:42,880

Blue Mountains I don't know it's

939

00:43:46,859 --> 00:43:45,190

obviously a lifestyle thing then we've

940

00:43:48,990 --> 00:43:46,869

got the weed of magic festival coming up

941

00:43:50,820 --> 00:43:49,000

shortly will our local witches will come

942

00:43:54,120 --> 00:43:50,830

out into the street met cast spells on

943

00:43:56,700 --> 00:43:54,130

people and so forth but it's interesting

944

00:43:58,500 --> 00:43:56,710

that I haven't actually seen the over 80

945

00:44:01,020 --> 00:43:58,510

vaccination activity here hoping to be

946

00:44:03,840 --> 00:44:01,030

here for five and a half years but this

947

00:44:05,820 --> 00:44:03,850

postcode were in near 2780 is the second

948

00:44:07,920 --> 00:44:05,830

lowest rate of vaccinations at every

949

00:44:10,410 --> 00:44:07,930

party postcode in Australia what's the

950

00:44:12,510 --> 00:44:10,420

first you know now Lamar balanar i think

951  
00:44:15,120 --> 00:44:12,520  
is no balanus yeah i know that on the

952  
00:44:16,620 --> 00:44:15,130  
north northern curve rivers and there's

953  
00:44:18,300 --> 00:44:16,630  
a root development that is in an area

954  
00:44:19,770 --> 00:44:18,310  
where there was an active highly

955  
00:44:21,540 --> 00:44:19,780  
accurate any vaccinations organisation

956  
00:44:25,560 --> 00:44:21,550  
running I used to go to Sunday school

957  
00:44:26,910 --> 00:44:25,570  
camping downer Oh many years ago aha we

958  
00:44:30,720 --> 00:44:26,920  
won't talk about sunday school till

959  
00:44:32,870 --> 00:44:30,730  
about Oh stone Devils I don't know

960  
00:44:34,920 --> 00:44:32,880  
haven't seen it but certainly up here I

961  
00:44:37,050 --> 00:44:34,930  
might jog about being the gluten-free

962  
00:44:40,050 --> 00:44:37,060  
capital of the world its food fads

963  
00:44:43,320 --> 00:44:40,060

everywhere yeah there's some crystals

964

00:44:45,300 --> 00:44:43,330

and me are crispy everywhere yep so

965

00:44:47,099 --> 00:44:45,310

we've got chops with crystal sure we're

966

00:44:49,080 --> 00:44:47,109

right near the main street just looking

967

00:44:50,940 --> 00:44:49,090

down from our viewer here on the vendor

968

00:44:52,830 --> 00:44:50,950

the Carrington I can see the main street

969

00:44:54,000 --> 00:44:52,840

I'm sure that our crystal shops and all

970

00:44:56,400 --> 00:44:54,010

sorts of things down there are many

971

00:44:58,190 --> 00:44:56,410

Chris in fact when Richard's talked

972

00:45:01,349 --> 00:44:58,200

before about the music that started up

973

00:45:03,450 --> 00:45:01,359

just it was a very first thing was one

974

00:45:05,520 --> 00:45:03,460

of those Indian drums that people talk

975

00:45:08,760 --> 00:45:05,530

about the ends of if you do any higher

976

00:45:10,050 --> 00:45:08,770

accretion of stuff so yes it is a it's

977

00:45:11,670 --> 00:45:10,060

an alternative lifestyle place which

978

00:45:14,040 --> 00:45:11,680

also was the case with the Northern

979

00:45:15,540 --> 00:45:14,050

Rivers New South Wales it was a Troy

980

00:45:18,300 --> 00:45:15,550

change place but we'll retired and went

981

00:45:20,460 --> 00:45:18,310

up there I mean nimbin must was there

982

00:45:22,050 --> 00:45:20,470

meant nimbin probably now is nothing

983

00:45:23,760 --> 00:45:22,060

like I was back in the olden days but

984

00:45:25,349 --> 00:45:23,770

now I think it was compulsory to smoke

985

00:45:26,700 --> 00:45:25,359

weed when he went on him but mother 3

986

00:45:28,980 --> 00:45:26,710

about of the town when I laugh when tlie

987

00:45:32,910 --> 00:45:28,990

I left quickly because obvious I

988

00:45:35,070 --> 00:45:32,920

wouldn't do anything a little that so I

989

00:45:37,470 --> 00:45:35,080

think that's part of it the area of has

990

00:45:39,270 --> 00:45:37,480

attracted people yeah because there is a

991

00:45:41,640 --> 00:45:39,280

certain last part of the area and it's

992

00:45:43,410 --> 00:45:41,650

away from Sydney dick but you know so

993

00:45:45,300 --> 00:45:43,420

saying I came up here on the train this

994

00:45:47,120 --> 00:45:45,310

morning from Sydney and it took me less

995

00:45:50,330 --> 00:45:47,130

than two hours knows yeah

996

00:45:51,740 --> 00:45:50,340

it's not a long trip adore really it's

997

00:45:53,390 --> 00:45:51,750

not a long trip for some lives in Sidon

998

00:45:56,870 --> 00:45:53,400

him so it's an awfully long trip you

999

00:45:58,280 --> 00:45:56,880

live in France or someone like that i

1000

00:45:59,810 --> 00:45:58,290

keep reading novels with people say they

1001  
00:46:02,810 --> 00:45:59,820  
have to travel first class to go from

1002  
00:46:05,060 --> 00:46:02,820  
from Geneva to burn because it's me out

1003  
00:46:06,410 --> 00:46:05,070  
a half and the triumphal where we do

1004  
00:46:07,910 --> 00:46:06,420  
that they go to work here I've been

1005  
00:46:10,190 --> 00:46:07,920  
trained was quite comfortable in purple

1006  
00:46:12,760 --> 00:46:10,200  
seeds joke Oh excellent oh look almost

1007  
00:46:15,350 --> 00:46:12,770  
as purple is your hair today I must say

1008  
00:46:17,840 --> 00:46:15,360  
that's our new renovated trains the ones

1009  
00:46:18,920 --> 00:46:17,850  
with the purple sleeps yes we hope we we

1010  
00:46:21,110 --> 00:46:18,930  
actually tweet about that when we get

1011  
00:46:23,270 --> 00:46:21,120  
purple suits yeah I saw that Jojo what

1012  
00:46:26,420 --> 00:46:23,280  
you I'd watch your tweed handle Joe it's

1013  
00:46:29,120 --> 00:46:26,430

at Joe alabaster one word and red bay

1014

00:46:31,760 --> 00:46:29,130

it's at Red bank's com also one word

1015

00:46:33,230 --> 00:46:31,770

when your website of course is ratbags

1016

00:46:37,040 --> 00:46:33,240

calm but that's got a dot in it not the

1017

00:46:39,980 --> 00:46:37,050

word do tooi and you know you've been

1018

00:46:42,920 --> 00:46:39,990

you've been doing ratbags con for years

1019

00:46:46,460 --> 00:46:42,930

even before I met you 15 years I started

1020

00:46:47,930 --> 00:46:46,470

started in March 1999 and the original

1021

00:46:50,060 --> 00:46:47,940

idea was to simply list the thousand

1022

00:46:52,100 --> 00:46:50,070

places I didn't like that's right and so

1023

00:46:53,990 --> 00:46:52,110

so for the idea what and actually do

1024

00:46:55,820 --> 00:46:54,000

like ticked over on the thirty-first

1025

00:46:59,240 --> 00:46:55,830

December night Oh 99 when the world was

1026

00:47:03,650 --> 00:46:59,250

about to end and I added the thousandth

1027

00:47:05,180 --> 00:47:03,660

person there some significant things the

1028

00:47:10,010 --> 00:47:05,190

Estonian vaccination network was number

1029

00:47:11,870 --> 00:47:10,020

one pat robertson's crazy christian

1030

00:47:17,240 --> 00:47:11,880

coalition while remark by coincidence

1031

00:47:19,580 --> 00:47:17,250

came in at number 666 the style of place

1032

00:47:21,350 --> 00:47:19,590

is this list of a website yeah yeah and

1033

00:47:22,880 --> 00:47:21,360

then I started adding comments to it and

1034

00:47:24,140 --> 00:47:22,890

then I started become a magazine yes

1035

00:47:25,910 --> 00:47:24,150

then they come and actually pain in the

1036

00:47:27,110 --> 00:47:25,920

neck like all these things because

1037

00:47:29,390 --> 00:47:27,120

you've got to keep doing it all the time

1038

00:47:31,640 --> 00:47:29,400

you do it's like the skeptics don't

1039

00:47:33,590 --> 00:47:31,650

really ever do it every week and looking

1040

00:47:36,760 --> 00:47:33,600

on the stem there on the steps I can see

1041

00:47:40,630 --> 00:47:36,770

a couple little kids Oh they've gone

1042

00:47:43,130 --> 00:47:40,640

it's all right you can come up now Oscar

1043

00:47:45,110 --> 00:47:43,140

that all here they come I should point

1044

00:47:47,390 --> 00:47:45,120

out the only joke about it being a pain

1045

00:47:48,860 --> 00:47:47,400

because I received hate mail but also

1046

00:47:50,930 --> 00:47:48,870

have a lot of complementary stuff yeah

1047

00:47:51,770 --> 00:47:50,940

and if I wasn't getting that of Orden

1048

00:47:53,930 --> 00:47:51,780

getting the people looking at it I

1049

00:47:55,370 --> 00:47:53,940

wouldn't bother doing it so but I do get

1050

00:47:57,110 --> 00:47:55,380

the response so i get thousand several

1051  
00:47:59,150 --> 00:47:57,120  
thousand things i take a look at it it's

1052  
00:48:00,230 --> 00:47:59,160  
worth doing what i'd like to do is

1053  
00:48:02,510 --> 00:48:00,240  
figure out how can make a little

1054  
00:48:04,520 --> 00:48:02,520  
well that's that's that's a question we

1055  
00:48:06,800 --> 00:48:04,530  
all ask now these two kids have come

1056  
00:48:10,790 --> 00:48:06,810  
back up come up come on it's your hello

1057  
00:48:14,180 --> 00:48:10,800  
what's that what's that you're going to

1058  
00:48:16,760 --> 00:48:14,190  
say hello death i'm say hello now you

1059  
00:48:19,510 --> 00:48:16,770  
say he'll see that big blue one you say

1060  
00:48:22,310 --> 00:48:19,520  
hello to that hello the microphone is

1061  
00:48:23,930 --> 00:48:22,320  
she's listening she put her ear up and

1062  
00:48:28,910 --> 00:48:23,940  
she was Oscar come over and you want to

1063  
00:48:30,800 --> 00:48:28,920

say hello Oscar this is like never work

1064

00:48:33,470 --> 00:48:30,810

with children and animals because we're

1065

00:48:35,780 --> 00:48:33,480

the chatterbox Oscar is now at least now

1066

00:48:40,610 --> 00:48:35,790

gosh do you want to say hello Oscar

1067

00:48:42,590 --> 00:48:40,620

gonna say hello say hello hello well

1068

00:48:47,450 --> 00:48:42,600

yeah we got something do you wanna say

1069

00:48:49,130 --> 00:48:47,460

hello say hello hey you don't have to

1070

00:48:55,550 --> 00:48:49,140

touch it just say in your big voice

1071

00:48:57,620 --> 00:48:55,560

hello no downside isn't that always the

1072

00:48:59,980 --> 00:48:57,630

way but she's absolutely adorable what

1073

00:49:03,380 --> 00:48:59,990

lovely big blue eyes she's looking at me

1074

00:49:05,050 --> 00:49:03,390

and of course and you've got blue eyes

1075

00:49:08,720 --> 00:49:05,060

too and of course she's fully vaccinated

1076  
00:49:12,200 --> 00:49:08,730  
they are both fully vaccinated actually

1077  
00:49:13,520 --> 00:49:12,210  
had I'm Oscars chicken pox was done

1078  
00:49:15,860 --> 00:49:13,530  
slightly early because there was an

1079  
00:49:18,140 --> 00:49:15,870  
outbreak in the area so I had him done

1080  
00:49:21,460 --> 00:49:18,150  
six months before schedule which is

1081  
00:49:23,870 --> 00:49:21,470  
acceptable by the jps standard so yeah

1082  
00:49:26,720 --> 00:49:23,880  
there wasn't a bad outbreak in the area

1083  
00:49:28,340 --> 00:49:26,730  
and I was a bit concerned she's just

1084  
00:49:31,250 --> 00:49:28,350  
adorable well thanks everybody it was a

1085  
00:49:33,230 --> 00:49:31,260  
great day of filming we had a few stops

1086  
00:49:34,670 --> 00:49:33,240  
and starts and we we feared we lost all

1087  
00:49:38,300 --> 00:49:34,680  
the audio at one stage but it was all

1088  
00:49:40,490 --> 00:49:38,310

good in here and yeah pretty soon now I

1089

00:49:42,650 --> 00:49:40,500

hope to have that documentary unleashed

1090

00:49:44,270 --> 00:49:42,660

at least on the world to get up the

1091

00:49:46,430 --> 00:49:44,280

noses of the anti-vaxxers everywhere

1092

00:50:05,009 --> 00:49:46,440

that's always a good day when you monoi

1093

00:50:09,160 --> 00:50:07,509

hey this is Jay novella from the

1094

00:50:11,079 --> 00:50:09,170

skeptics guide to the universe podcast

1095

00:50:12,910 --> 00:50:11,089

did you know that there are thousands of

1096

00:50:14,650 --> 00:50:12,920

skeptical reports interviews and

1097

00:50:17,349 --> 00:50:14,660

investigations going back to nineteen

1098

00:50:20,589 --> 00:50:17,359

eighty one free to download just visit w

1099

00:50:22,509 --> 00:50:20,599

WC optics com a you click the

1100

00:50:24,489 --> 00:50:22,519

publications link and enjoy almost every

1101

00:50:26,440 --> 00:50:24,499

back issue of the skeptic the journal

1102

00:50:27,999 --> 00:50:26,450

from Australian skeptics you can also

1103

00:50:30,279 --> 00:50:28,009

subscribe online and get the latest

1104

00:50:32,319 --> 00:50:30,289

digital or hard copy of this the world's

1105

00:50:35,979 --> 00:50:32,329

second oldest skeptical magazine that's

1106

00:50:50,019 --> 00:50:35,989

ww skeptics com a you or just google

1107

00:50:51,480 --> 00:50:50,029

Australian skeptics is my not spooky

1108

00:50:54,730 --> 00:50:51,490

action

1109

00:51:00,740 --> 00:50:57,800

I'm speaking with dr. Peter Davies a for

1110

00:51:03,260 --> 00:51:00,750

macular degeneration Awareness Week what

1111

00:51:06,710 --> 00:51:03,270

is your specialty dr. Davies I'm on a

1112

00:51:09,230 --> 00:51:06,720

retinal surgeon which means that I do

1113

00:51:11,240 --> 00:51:09,240

surgery on the retina on the macula and

1114

00:51:13,880 --> 00:51:11,250

the back of the eye as well as that I do

1115

00:51:15,530 --> 00:51:13,890

a lot of cataracts and regimes and other

1116

00:51:18,560 --> 00:51:15,540

types of surgeries that people

1117

00:51:20,210 --> 00:51:18,570

understand is associated I can I ask you

1118

00:51:22,400 --> 00:51:20,220

what attracted you to that area of

1119

00:51:24,920 --> 00:51:22,410

medicine what made you specialize in

1120

00:51:28,280 --> 00:51:24,930

that area other than that UK at the time

1121

00:51:29,990 --> 00:51:28,290

and it's usually doctors you have the

1122

00:51:32,240 --> 00:51:30,000

opportunity of working with there was a

1123

00:51:35,570 --> 00:51:32,250

fairly inspirational doctor called dr.

1124

00:51:37,550 --> 00:51:35,580

Robert Johnson and I watched him doing

1125

00:51:39,950 --> 00:51:37,560

retinal surgeries and I thought wow this

1126  
00:51:41,180 --> 00:51:39,960  
is this is a great thing to do when when

1127  
00:51:42,770 --> 00:51:41,190  
I think of the retina I think of it's

1128  
00:51:44,600 --> 00:51:42,780  
something that if it's damaged you can't

1129  
00:51:48,050 --> 00:51:44,610  
normally fix but you can obviously do a

1130  
00:51:50,390 --> 00:51:48,060  
lot with it that I am ignorant of yes

1131  
00:51:52,490 --> 00:51:50,400  
your 10 if you think of the eye as a

1132  
00:51:54,620 --> 00:51:52,500  
golf ball with the lens at the front and

1133  
00:51:56,090 --> 00:51:54,630  
a lens in the middle and then think of

1134  
00:51:58,100 --> 00:51:56,100  
the back of the golf ball that's where

1135  
00:51:59,930 --> 00:51:58,110  
the retina is so the retina is like the

1136  
00:52:01,670 --> 00:51:59,940  
filming your camera it captures the

1137  
00:52:05,030 --> 00:52:01,680  
light and sends the signals to the brain

1138  
00:52:07,640 --> 00:52:05,040

and the retina has a central part in it

1139

00:52:09,650 --> 00:52:07,650

called the macula so we can do several

1140

00:52:13,370 --> 00:52:09,660

things with the retina we can treat

1141

00:52:15,350 --> 00:52:13,380

macular disease and we can also reattach

1142

00:52:17,720 --> 00:52:15,360

the retina sometimes the retina lifts

1143

00:52:19,610 --> 00:52:17,730

away from the back of the eye that's

1144

00:52:22,100 --> 00:52:19,620

what we call a retinal detachment and we

1145

00:52:23,560 --> 00:52:22,110

can put that back with surgery is there

1146

00:52:26,420 --> 00:52:23,570

something there's the holy grail of

1147

00:52:29,990 --> 00:52:26,430

retina surgery that can't yet be done

1148

00:52:32,450 --> 00:52:30,000

but you'd hope it can be one day I think

1149

00:52:35,690 --> 00:52:32,460

we all want to be able to get into the

1150

00:52:38,270 --> 00:52:35,700

genetic code of the cells at the back of

1151

00:52:40,970 --> 00:52:38,280

the eye and reprogram the genetics

1152

00:52:45,050 --> 00:52:40,980

because the problem with macular

1153

00:52:47,420 --> 00:52:45,060

degeneration is partly a genetic break

1154

00:52:50,540 --> 00:52:47,430

down the cells just stopped working the

1155

00:52:53,480 --> 00:52:50,550

way they was designed to do and there's

1156

00:52:54,890 --> 00:52:53,490

been lots of research over 20 years or

1157

00:52:58,490 --> 00:52:54,900

more as long as I've been doing

1158

00:53:01,490 --> 00:52:58,500

ophthalmology to try and get in and

1159

00:53:03,680 --> 00:53:01,500

replace or repair or change the genetics

1160

00:53:05,270 --> 00:53:03,690

in the cells at the back of the eye is

1161

00:53:07,460 --> 00:53:05,280

partial is the reason for this because

1162

00:53:08,150 --> 00:53:07,470

the I wasn't designed as to last as long

1163

00:53:13,640 --> 00:53:08,160

as we

1164

00:53:16,700 --> 00:53:13,650

now yes several theories um finally the

1165

00:53:19,520 --> 00:53:16,710

AI has very good protective mechanisms

1166

00:53:21,710 --> 00:53:19,530

built into it instance UV light from the

1167

00:53:25,039 --> 00:53:21,720

phone or from welding that gets absorbed

1168

00:53:27,799 --> 00:53:25,049

in the very front layer of the eye but

1169

00:53:29,779 --> 00:53:27,809

the blue frequency like to carry a lot

1170

00:53:32,089 --> 00:53:29,789

of energy now some of that like it's

1171

00:53:34,490 --> 00:53:32,099

absorbed in the lens as you get older

1172

00:53:37,520 --> 00:53:34,500

the lens becomes a bit yellow and then

1173

00:53:42,440 --> 00:53:37,530

in the macula there is actually proteins

1174

00:53:45,500 --> 00:53:42,450

that absorb the high energy and when we

1175

00:53:47,900 --> 00:53:45,510

ask patients to take lutein as a vitamin

1176

00:53:50,990 --> 00:53:47,910

supplement we think that that helps to

1177

00:53:53,480 --> 00:53:51,000

increase the pigments in the macula but

1178

00:53:55,730 --> 00:53:53,490

yeah I really eyes do wear out with age

1179

00:53:59,059 --> 00:53:55,740

and that's the fundamental problem of

1180

00:54:01,069 --> 00:53:59,069

macular degeneration so it is usually

1181

00:54:02,960 --> 00:54:01,079

genetic but is there anything we can do

1182

00:54:05,059 --> 00:54:02,970

throughout our life to avoid damage to

1183

00:54:06,349 --> 00:54:05,069

the macula yeah there certainly is as

1184

00:54:08,420 --> 00:54:06,359

you point out you can't change your

1185

00:54:11,420 --> 00:54:08,430

jeans you can't change your pants but

1186

00:54:13,250 --> 00:54:11,430

you can limit your risk the first thing

1187

00:54:16,760 --> 00:54:13,260

is to avoid cigarette smoke that's

1188

00:54:19,819 --> 00:54:16,770

really really important cigarette smoke

1189

00:54:22,250 --> 00:54:19,829

contains toxins that harm the protective

1190

00:54:24,380 --> 00:54:22,260

mechanisms at the back of the eye if you

1191

00:54:26,630 --> 00:54:24,390

smoke you're twice as likely to get

1192

00:54:29,150 --> 00:54:26,640

macular degeneration and get it younger

1193

00:54:31,549 --> 00:54:29,160

and get a more serious version of it so

1194

00:54:34,130 --> 00:54:31,559

that's really important the other thing

1195

00:54:37,640 --> 00:54:34,140

is to have a really healthy diet and

1196

00:54:41,150 --> 00:54:37,650

lifestyle eating plenty of green leafy

1197

00:54:44,329 --> 00:54:41,160

vegetables and fresh fruit and these

1198

00:54:47,210 --> 00:54:44,339

things can be discussed with your GP and

1199

00:54:49,579 --> 00:54:47,220

a nutritional if you see one but it's

1200

00:54:52,730 --> 00:54:49,589

very important that your food is fresh

1201  
00:54:55,069 --> 00:54:52,740  
and healthy and tell me dr. Peter Davies

1202  
00:54:56,990 --> 00:54:55,079  
I've heard optometrists say that you can

1203  
00:54:58,700 --> 00:54:57,000  
look into the eye and the eye tends to

1204  
00:55:01,339 --> 00:54:58,710  
mirror the way the cardiovascular system

1205  
00:55:04,609 --> 00:55:01,349  
is throughout the entire body is that

1206  
00:55:06,950 --> 00:55:04,619  
necessarily true it is true when you

1207  
00:55:08,809 --> 00:55:06,960  
look at the back of the eye you directly

1208  
00:55:11,630 --> 00:55:08,819  
see blood vessels and blood vessels

1209  
00:55:14,950 --> 00:55:11,640  
apart of the cardiovascular system now

1210  
00:55:18,140 --> 00:55:14,960  
actually in our GPS do a very good job

1211  
00:55:21,470 --> 00:55:18,150  
managing things like high blood pressure

1212  
00:55:21,980 --> 00:55:21,480  
and high cholesterol so as I doctors we

1213  
00:55:25,220 --> 00:55:21,990

don't

1214

00:55:27,290 --> 00:55:25,230

be as much change in the back of the eye

1215

00:55:29,150 --> 00:55:27,300

from high blood pressure and high crest

1216

00:55:32,330 --> 00:55:29,160

are we do occasionally but nothing like

1217

00:55:34,820 --> 00:55:32,340

we used to see but diabetes attacks

1218

00:55:37,670 --> 00:55:34,830

blood vessels and that's why all

1219

00:55:39,770 --> 00:55:37,680

diabetics need our checks because we can

1220

00:55:41,510 --> 00:55:39,780

literally look into the eye and we can

1221

00:55:43,280 --> 00:55:41,520

see the changes in the blood vessels and

1222

00:55:45,740 --> 00:55:43,290

that gives us an idea of what's going on

1223

00:55:48,020 --> 00:55:45,750

elsewhere in the body now I myself had a

1224

00:55:49,670 --> 00:55:48,030

macular check about a year or two ago

1225

00:55:52,430 --> 00:55:49,680

and they took a photo of it and they

1226

00:55:54,800 --> 00:55:52,440

said it looked like a textbook macula at

1227

00:55:57,140 --> 00:55:54,810

the moment my dad does have some macular

1228

00:55:59,870 --> 00:55:57,150

degeneration he's in his 80s now how

1229

00:56:02,270 --> 00:55:59,880

often should i get my macular checked if

1230

00:56:05,900 --> 00:56:02,280

you're over 50 you should see your

1231

00:56:09,350 --> 00:56:05,910

optometrist every two years because one

1232

00:56:12,170 --> 00:56:09,360

in seven people over the age of 50 have

1233

00:56:15,380 --> 00:56:12,180

some signs of aging at the back of the

1234

00:56:17,750 --> 00:56:15,390

eyes once you get over 65 you probably

1235

00:56:19,850 --> 00:56:17,760

should clear the optometrist every year

1236

00:56:21,859 --> 00:56:19,860

the optometrist is the best person to

1237

00:56:24,470 --> 00:56:21,869

see because they have good quality

1238

00:56:27,020 --> 00:56:24,480

cameras and their practices are set up

1239

00:56:29,480 --> 00:56:27,030

to be able to screen you for I disease

1240

00:56:32,030 --> 00:56:29,490

such as macular degeneration here where

1241

00:56:34,790 --> 00:56:32,040

i work at newcastle hospital our job is

1242

00:56:36,890 --> 00:56:34,800

we treat you and so if there's a problem

1243

00:56:39,440 --> 00:56:36,900

there that the optometrist is concerned

1244

00:56:40,910 --> 00:56:39,450

about that family step in what if you do

1245

00:56:43,940 --> 00:56:40,920

have other complicating issues like

1246

00:56:45,950 --> 00:56:43,950

myself I have some glaucoma going on is

1247

00:56:49,640 --> 00:56:45,960

that necessarily affect the macula or

1248

00:56:51,800 --> 00:56:49,650

not glaucoma there are different

1249

00:56:54,770 --> 00:56:51,810

glaucoma's there's actually many types

1250

00:56:56,450 --> 00:56:54,780

of glaucoma but the one we most often

1251  
00:56:59,000 --> 00:56:56,460  
talk about is when there is raised

1252  
00:57:01,370 --> 00:56:59,010  
pressure in the eye and that increased

1253  
00:57:04,310 --> 00:57:01,380  
pressure has an effect on the optic

1254  
00:57:06,320 --> 00:57:04,320  
nerve where the optic nerve inserts into

1255  
00:57:09,260 --> 00:57:06,330  
the back of the eyeball again thinking

1256  
00:57:11,180 --> 00:57:09,270  
of our golf ball that we have the nerve

1257  
00:57:14,210 --> 00:57:11,190  
is a vulnerable because it's difficult

1258  
00:57:15,830 --> 00:57:14,220  
to get a good blood supply for the optic

1259  
00:57:17,840 --> 00:57:15,840  
nerve so when the pressure goes up

1260  
00:57:19,880 --> 00:57:17,850  
that's where we tend to see the damage

1261  
00:57:22,280 --> 00:57:19,890  
at the head of the optic nerve at the

1262  
00:57:24,740 --> 00:57:22,290  
back of the eye so glaucoma doesn't

1263  
00:57:27,560 --> 00:57:24,750

usually affect the macular in very very

1264

00:57:29,630 --> 00:57:27,570

severe cases of glaucoma the macula

1265

00:57:32,990 --> 00:57:29,640

becomes affected but usually glaucoma

1266

00:57:35,450 --> 00:57:33,000

affects your peripheral vision first now

1267

00:57:37,130 --> 00:57:35,460

patients aren't going to notice

1268

00:57:39,710 --> 00:57:37,140

loss of their peripheral vision and

1269

00:57:42,590 --> 00:57:39,720

that's why it's very very important that

1270

00:57:44,870 --> 00:57:42,600

everybody is seeing an optometrist to

1271

00:57:47,060 --> 00:57:44,880

look for changes of I disease such as

1272

00:57:49,940 --> 00:57:47,070

glaucoma because patients aren't going

1273

00:57:52,340 --> 00:57:49,950

to notice loss of their vision but

1274

00:57:54,710 --> 00:57:52,350

they will notice loss of central vision

1275

00:57:57,500 --> 00:57:54,720

and that's something that we can talk

1276  
00:57:59,030 --> 00:57:57,510  
about how to monitor your eyes and dr.

1277  
00:58:00,440 --> 00:57:59,040  
Peter Davies what's the first thing

1278  
00:58:02,270 --> 00:58:00,450  
someone can do is having a listen to

1279  
00:58:04,160 --> 00:58:02,280  
this and going well maybe I should check

1280  
00:58:06,830 --> 00:58:04,170  
out the macula maybe not you're just

1281  
00:58:08,750 --> 00:58:06,840  
saying a simple optometrist visit huh if

1282  
00:58:11,000 --> 00:58:08,760  
there's one thing that they can do that

1283  
00:58:12,650 --> 00:58:11,010  
even simpler and what I'd like all your

1284  
00:58:15,170 --> 00:58:12,660  
listeners to do whilst they're listening

1285  
00:58:17,390 --> 00:58:15,180  
to me talking right now is pick up their

1286  
00:58:19,160 --> 00:58:17,400  
right hand and with the palm of their

1287  
00:58:21,590 --> 00:58:19,170  
hand I want them to cover their right

1288  
00:58:24,470 --> 00:58:21,600

eye and I want them to look out of their

1289

00:58:26,660 --> 00:58:24,480

left eye only in other words I'm asking

1290

00:58:29,120 --> 00:58:26,670

people to test their vision one at a

1291

00:58:32,480 --> 00:58:29,130

time because what happens in my practice

1292

00:58:34,220 --> 00:58:32,490

is so often patients come to me to

1293

00:58:37,310 --> 00:58:34,230

macular degeneration but they haven't

1294

00:58:39,950 --> 00:58:37,320

been aware of because the brain is very

1295

00:58:42,290 --> 00:58:39,960

good at tricking you so one I could be

1296

00:58:44,450 --> 00:58:42,300

losing vision and you're not noticing it

1297

00:58:46,280 --> 00:58:44,460

you're not aware of it so I want all

1298

00:58:47,900 --> 00:58:46,290

your listeners right now cover that

1299

00:58:50,090 --> 00:58:47,910

right eye and check the vision in the

1300

00:58:52,730 --> 00:58:50,100

left side does it seem normal does it

1301

00:58:55,190 --> 00:58:52,740

seem like once they cover the writer I

1302

00:58:57,940 --> 00:58:55,200

want them to swap pick up your left hand

1303

00:59:00,680 --> 00:58:57,950

cover your left eye and check your eyes

1304

00:59:04,310 --> 00:59:00,690

individually and if patients did that

1305

00:59:07,100 --> 00:59:04,320

every week or every two weeks I think

1306

00:59:09,410 --> 00:59:07,110

that we would detect macular disease far

1307

00:59:11,690 --> 00:59:09,420

sooner than we currently do in the

1308

00:59:14,150 --> 00:59:11,700

Hunter Valley and that means I would be

1309

00:59:16,190 --> 00:59:14,160

getting to treat people earlier than I

1310

00:59:18,770 --> 00:59:16,200

currently getting to cheat them and we

1311

00:59:19,910 --> 00:59:18,780

were better overall visual results and

1312

00:59:21,200 --> 00:59:19,920

if you think you are noticing a

1313

00:59:24,170 --> 00:59:21,210

difference then you go to the

1314

00:59:26,990 --> 00:59:24,180

optometrist absolutely absolute straight

1315

00:59:29,630 --> 00:59:27,000

away if you notice reduced vision in

1316

00:59:31,940 --> 00:59:29,640

either I you don't wait for the next

1317

00:59:33,830 --> 00:59:31,950

available appointment you go and pick up

1318

00:59:36,530 --> 00:59:33,840

the phone your knock on the door and you

1319

00:59:39,320 --> 00:59:36,540

get seen immediately as a retinal

1320

00:59:41,570 --> 00:59:39,330

surgeon one of the surgeries I do is I

1321

00:59:43,400 --> 00:59:41,580

can drain the blood if there's any

1322

00:59:45,950 --> 00:59:43,410

bleeding at the back of the eye I can

1323

00:59:48,320 --> 00:59:45,960

drain that blood away from the macula

1324

00:59:49,470 --> 00:59:48,330

but patient patient costas feeling

1325

00:59:51,690 --> 00:59:49,480

within

1326  
00:59:54,390 --> 00:59:51,700  
day or two of the hemorrhage occurring

1327  
00:59:57,420 --> 00:59:54,400  
okay that's why it's so important that

1328  
00:59:58,859 --> 00:59:57,430  
people present straight away look thank

1329  
01:00:01,440 --> 00:59:58,869  
you very much for your time at dr. Peter

1330  
01:00:26,680 --> 01:00:01,450  
Davies and roll on that increased DNA

1331  
01:00:31,040 --> 01:00:28,970  
thank you for listening to the skeptic

1332  
01:00:34,220 --> 01:00:31,050  
zone and thank you fred the cat hello

1333  
01:00:36,260 --> 01:00:34,230  
who I gave up his cat post so I could

1334  
01:00:38,090 --> 01:00:36,270  
set my microphone on top of that he's

1335  
01:00:39,620 --> 01:00:38,100  
just in my arms at the moment you're

1336  
01:00:45,410 --> 01:00:39,630  
going to send me out to the listeners

1337  
01:00:46,970 --> 01:00:45,420  
Fred and hipper work with children and

1338  
01:00:51,590 --> 01:00:46,980

animals all right I'll put you down to

1339

01:00:52,910 --> 01:00:51,600

coffee guy got there he goes oh we got

1340

01:00:55,580 --> 01:00:52,920

him out I wonder if you heard that he's

1341

01:00:57,290 --> 01:00:55,590

walking away he's most upset I think he

1342

01:00:59,300 --> 01:00:57,300

wants he's cut post back it's all right

1343

01:01:00,890 --> 01:00:59,310

you'll get it back in a minute coming up

1344

01:01:03,320 --> 01:01:00,900

on the skeptic zone in the coming weeks

1345

01:01:05,870 --> 01:01:03,330

even more interviews from Iran sir give

1346

01:01:07,520 --> 01:01:05,880

at the QED conference in Manchester and

1347

01:01:09,590 --> 01:01:07,530

I think in a couple of weeks I'm going

1348

01:01:12,710 --> 01:01:09,600

to pop back up to the Blue Mountains for

1349

01:01:14,840 --> 01:01:12,720

am a magic festival hmm I think job

1350

01:01:17,450 --> 01:01:14,850

alabaster Peter bandage and I might be

1351

01:01:20,780 --> 01:01:17,460

wandering around seeing what we can find

1352

01:01:23,090 --> 01:01:20,790

there but for this week this is Richard

1353

01:01:25,490 --> 01:01:23,100

Saunders signing off with fed the cat

1354

01:01:31,370 --> 01:01:25,500

after get some water or something from

1355

01:01:35,560 --> 01:01:31,380

Sydney Australia you've been listening

1356

01:01:40,250 --> 01:01:35,570

to the skeptic zone visit our website at