

**THE
SKEPTIC
ZONE
PODCAST**

www.skepticzone.tv

1
00:00:12,370 --> 00:00:09,080
welcome to the skeptic zone the podcast

2
00:00:22,360 --> 00:00:12,380
from Australia for science and reason

3
00:00:25,190 --> 00:00:22,370
[Music]

4
00:00:29,000 --> 00:00:25,200
hello and welcome to the skeptic zone

5
00:00:31,700 --> 00:00:29,010
podcast episode number 435 for the

6
00:00:33,920 --> 00:00:31,710
seventeenth of february 2017 Richard

7
00:00:36,290 --> 00:00:33,930
Saunders here with you from Melbourne

8
00:00:37,700 --> 00:00:36,300
Australia beautiful Melbourne I'm here

9
00:00:40,580 --> 00:00:37,710
for a few days to visit my old friend

10
00:00:44,479 --> 00:00:40,590
dr. Steve Roberts one of the UF o--

11
00:00:46,790 --> 00:00:44,489
experts in the Australian skeptics this

12
00:00:49,070 --> 00:00:46,800
time however Steve and I aren't going to

13
00:00:52,250 --> 00:00:49,080

be discussing UFOs we're going to be

14

00:00:54,920 --> 00:00:52,260

taking a bicycle tour of the solar

15

00:00:56,870 --> 00:00:54,930

system that's coming up a little bit

16

00:01:00,560 --> 00:00:56,880

later on in the show here in Melbourne

17

00:01:03,979 --> 00:01:00,570

at San kilda there's actually a scale

18

00:01:05,900 --> 00:01:03,989

model of our solar system where you

19

00:01:09,710 --> 00:01:05,910

started the Sun and work your way all

20

00:01:12,350 --> 00:01:09,720

the way to Pluto as it happens which is

21

00:01:14,389 --> 00:01:12,360

a distance on this scale of five point

22

00:01:17,749 --> 00:01:14,399

nine kilometers now it's a great thing

23

00:01:19,639 --> 00:01:17,759

to do on foot or as we do it on bicycle

24

00:01:22,340 --> 00:01:19,649

so join us a bit later on in the show

25

00:01:24,800 --> 00:01:22,350

when Steve Roberts and ions and friends

26

00:01:27,169 --> 00:01:24,810

do a bicycle tour of our solar system

27

00:01:29,270 --> 00:01:27,179

but to kick off the show we're going to

28

00:01:31,550 --> 00:01:29,280

be reporting Steve Robert tonight on our

29

00:01:34,930 --> 00:01:31,560

story that's just come to light in the

30

00:01:37,609 --> 00:01:34,940

last couple of days Healing Touch at a

31

00:01:39,949 --> 00:01:37,619

Queensland University or some people

32

00:01:43,010 --> 00:01:39,959

know this as therapeutic touch this is

33

00:01:45,800 --> 00:01:43,020

the ridiculous and when you see it it

34

00:01:51,139 --> 00:01:45,810

just looks as ridiculous as it is a

35

00:01:53,449 --> 00:01:51,149

method of stroking near a patient along

36

00:01:55,930 --> 00:01:53,459

their legs and arms and body out through

37

00:02:01,790 --> 00:01:55,940

their shoes in this case a boy

38

00:02:03,290 --> 00:02:01,800

pretending to scoop away mythical energy

39

00:02:04,520 --> 00:02:03,300

well they're not pretending that people

40

00:02:06,710 --> 00:02:04,530

these people really think they are

41

00:02:08,150 --> 00:02:06,720

scooping away mythical energy don't know

42

00:02:10,820 --> 00:02:08,160

they think they aren't really scooping

43

00:02:14,059 --> 00:02:10,830

away real energy it's pretty bizarre

44

00:02:16,850 --> 00:02:14,069

it's pretty crazy and a report on that

45

00:02:19,610 --> 00:02:16,860

story with comments by dr. Steve Roberts

46

00:02:22,610 --> 00:02:19,620

and I coming up at the beginning of the

47

00:02:24,559 --> 00:02:22,620

show and don't forget there are links in

48

00:02:27,830 --> 00:02:24,569

this week's show notes to various videos

49

00:02:30,980 --> 00:02:27,840

and websites we discuss during this

50

00:02:33,790 --> 00:02:30,990

report following that it's brouhaha

51
00:02:35,470 --> 00:02:33,800
science from Australia Science Channel

52
00:02:37,930 --> 00:02:35,480
what do we have this week oh it's Casey

53
00:02:40,060 --> 00:02:37,940
Harrigan Casey harrigans going to be

54
00:02:42,760 --> 00:02:40,070
talking about an alternative to

55
00:02:45,790 --> 00:02:42,770
suspended animation for long distance

56
00:02:47,470 --> 00:02:45,800
space travelers more or less having a

57
00:02:49,540 --> 00:02:47,480
bit of a sleep having a bit of a

58
00:02:52,720 --> 00:02:49,550
hibernation and then she's going to

59
00:02:55,480 --> 00:02:52,730
discuss the hashtag share science on

60
00:02:56,800 --> 00:02:55,490
social media and later on in the show

61
00:02:58,960 --> 00:02:56,810
i'll be reading a report from the

62
00:03:01,420 --> 00:02:58,970
australian skeptics website about a

63
00:03:04,060 --> 00:03:01,430

chiropractor in New South Wales who has

64

00:03:08,320 --> 00:03:04,070

just been found guilty of misleading

65

00:03:10,420 --> 00:03:08,330

advertising and find a huge amount of

66

00:03:13,600 --> 00:03:10,430

money well it's a lot more serious than

67

00:03:16,720 --> 00:03:13,610

simply making misleading advertising

68

00:03:19,120 --> 00:03:16,730

claims and she does those misleading

69

00:03:22,420 --> 00:03:19,130

claims revolve around making false

70

00:03:24,040 --> 00:03:22,430

claims of curing cancer all that and

71

00:03:26,020 --> 00:03:24,050

more coming up in this week's episode of

72

00:03:28,960 --> 00:03:26,030

the skeptic zone including right at the

73

00:03:31,000 --> 00:03:28,970

end a quick chat with an old friend of

74

00:03:34,030 --> 00:03:31,010

mine Lindley here in Melbourne who has

75

00:03:35,650 --> 00:03:34,040

started her own podcast so I like to

76

00:03:38,740 --> 00:03:35,660

encourage this sort of thing listen at

77

00:03:40,720 --> 00:03:38,750

the end foreign brand new podcast called

78

00:03:42,010 --> 00:03:40,730

running with scissors I've had a

79

00:03:43,360 --> 00:03:42,020

wonderful time here in the Melbourne

80

00:03:44,710 --> 00:03:43,370

over the last few days with my friend

81

00:03:47,350 --> 00:03:44,720

Steve Roberts as I said we did this

82

00:03:49,600 --> 00:03:47,360

bicycle tour of the solar system we've

83

00:03:51,640 --> 00:03:49,610

been going downtown melbourne is a

84

00:03:54,520 --> 00:03:51,650

wonderful place for strolling around the

85

00:03:56,140 --> 00:03:54,530

shops and the site's here it's just

86

00:03:58,780 --> 00:03:56,150

beautiful and I was lucky enough to

87

00:04:00,850 --> 00:03:58,790

cycle through a lot of Melbourne on this

88

00:04:02,860 --> 00:04:00,860

trip always a pleasure to be in

89

00:04:06,160 --> 00:04:02,870

Melbourne and I must say for the

90

00:04:09,430 --> 00:04:06,170

cyclists Melbourne is so much more cycle

91

00:04:11,440 --> 00:04:09,440

friendly than Sydney it's crazy and when

92

00:04:13,240 --> 00:04:11,450

you look for them here in Melbourne you

93

00:04:16,240 --> 00:04:13,250

do notice an awful lot of people on

94

00:04:19,020 --> 00:04:16,250

their bikes riding around and what I

95

00:04:21,430 --> 00:04:19,030

also love is downtown melbourne at

96

00:04:24,510 --> 00:04:21,440

certain convenience stores you can buy

97

00:04:28,600 --> 00:04:24,520

bicycle helmets for five dollars

98

00:04:30,370 --> 00:04:28,610

perfectly good fine usable safe bicycle

99

00:04:33,310 --> 00:04:30,380

helmets for five dollars I think that's

100

00:04:35,260 --> 00:04:33,320

a terrific idea so big tick to Melbourne

101
00:04:37,870 --> 00:04:35,270
for being more bicycle-friendly than

102
00:04:41,050 --> 00:04:37,880
Sydney mind you Sydney is very hilly

103
00:04:42,490 --> 00:04:41,060
there's lots of ups and downs and Sydney

104
00:04:45,520 --> 00:04:42,500
so it's a little bit more tricky to ride

105
00:04:47,170 --> 00:04:45,530
a bike but after looking at the

106
00:04:49,960 --> 00:04:47,180
situation here you

107
00:04:53,920 --> 00:04:49,970
nice to have a lot more dedicated bike

108
00:04:55,060 --> 00:04:53,930
areas in Sydney well that's enough for

109
00:04:57,070 --> 00:04:55,070
me at the moment you could probably hear

110
00:05:00,129 --> 00:04:57,080
various noises and sounds going on there

111
00:05:01,600 --> 00:05:00,139
are workers next door renovating a house

112
00:05:03,189 --> 00:05:01,610
so every now and then you hear drills

113
00:05:04,749 --> 00:05:03,199

and hammering and banging and things

114

00:05:06,810 --> 00:05:04,759

there are pipes going through this house

115

00:05:09,999 --> 00:05:06,820

with water flowing through them and

116

00:05:11,860 --> 00:05:10,009

aircraft flying overhead it's time for

117

00:05:15,610 --> 00:05:11,870

me to run out the door run around the

118

00:05:17,860 --> 00:05:15,620

corner to the kitchen of dr. Steve

119

00:05:20,800 --> 00:05:17,870

Roberts see if there are some blue

120

00:05:24,010 --> 00:05:20,810

cheese and peanuts what a combination I

121

00:05:26,740 --> 00:05:24,020

like that blue cheese and very strong

122

00:05:30,520 --> 00:05:26,750

flavor and nice roasted peanuts while I

123

00:05:30,850 --> 00:05:30,530

munch those I hope you enjoy the skeptic

124

00:05:53,800 --> 00:05:30,860

zone

125

00:05:58,700 --> 00:05:56,240

now Steve you and I should discuss this

126

00:06:01,310 --> 00:05:58,710

whole kerfuffle about therapeutic touch

127

00:06:03,170 --> 00:06:01,320

yeah at the moment but before we do that

128

00:06:13,390 --> 00:06:03,180

I thought we'd they give the listeners a

129

00:06:18,170 --> 00:06:16,100

that a UFO or going overhead I don't

130

00:06:23,240 --> 00:06:18,180

know what was cowboy shooting the bullet

131

00:06:24,950 --> 00:06:23,250

ricochet cowboys and yeah but just I'm

132

00:06:27,260 --> 00:06:24,960

visiting dr. Steve Roberts were in the

133

00:06:28,730 --> 00:06:27,270

kitchen and yes we're about to have a

134

00:06:35,690 --> 00:06:28,740

nice cup of cotton because this is a

135

00:06:37,070 --> 00:06:35,700

rather interesting coffee maker sounds

136

00:06:40,430 --> 00:06:37,080

great Steve I hope the coffee is good

137

00:06:41,930 --> 00:06:40,440

well for those yes coffee percolator

138

00:06:43,970 --> 00:06:41,940

that has got a lady went in the

139

00:06:45,860 --> 00:06:43,980

bottom then the tubes it's right over

140

00:06:47,510 --> 00:06:45,870

the anyone to the water boils at the

141

00:06:50,750 --> 00:06:47,520

elements even though that body of water

142

00:06:53,510 --> 00:06:50,760

is cold boiling water shoots up the tube

143

00:06:55,850 --> 00:06:53,520

and gets spit over the coffee grounds

144

00:06:58,280 --> 00:06:55,860

which will not get a hold of top light

145

00:07:01,030 --> 00:06:58,290

and the water filters down oh yes I can

146

00:07:02,990 --> 00:07:01,040

see the very tough for the leaders

147

00:07:04,820 --> 00:07:03,000

semi-transparent you can see the water

148

00:07:07,280 --> 00:07:04,830

gushing up a little but yeah there's a

149

00:07:09,340 --> 00:07:07,290

glass knob on the top and see the water

150

00:07:11,810 --> 00:07:09,350

landed the norm to come down again

151

00:07:13,909 --> 00:07:11,820

that's why I like to come to visit dr.

152

00:07:16,969 --> 00:07:13,919

Steve Roberts anyway let's go into the

153

00:07:22,700 --> 00:07:16,979

office and talk about this therapeutic

154

00:07:24,680 --> 00:07:22,710

touch how that soothing music stevia

155

00:07:26,690 --> 00:07:24,690

swill come into the office of dr. Steve

156

00:07:29,300 --> 00:07:26,700

Roberts which is just around the corner

157

00:07:31,400 --> 00:07:29,310

from his kitchen or just so happens it's

158

00:07:33,860 --> 00:07:31,410

very handy and we're looking at the

159

00:07:34,820 --> 00:07:33,870

video now I supplied on the ABC

160

00:07:37,520 --> 00:07:34,830

television

161

00:07:40,670 --> 00:07:37,530

my website here in Australia Healing

162

00:07:44,030 --> 00:07:40,680

Touch clinic at James Cook University in

163

00:07:49,040 --> 00:07:44,040

Queensland and we have a middle-aged

164

00:07:52,280 --> 00:07:49,050

woman presumably a nurse appearing to

165

00:07:54,530 --> 00:07:52,290

draw negative energy well for something

166

00:07:56,750 --> 00:07:54,540

something out of the shoes of an elderly

167

00:07:59,150 --> 00:07:56,760

patient I'm not kidding he's only

168

00:08:01,450 --> 00:07:59,160

dressed and she's wandering around this

169

00:08:04,850 --> 00:08:01,460

patient stroking him at the moment and

170

00:08:06,860 --> 00:08:04,860

she doesn't really touch it well smoking

171

00:08:09,620 --> 00:08:06,870

him sort of well I've been to the shirt

172

00:08:12,100 --> 00:08:09,630

there just a little bit away and the

173

00:08:14,810 --> 00:08:12,110

action is as if you're pretending to

174

00:08:17,720 --> 00:08:14,820

gather dust or something often to run

175

00:08:20,540 --> 00:08:17,730

away wipe something down she wipes bad

176

00:08:23,360 --> 00:08:20,550

vibes or write it all down into his feet

177

00:08:26,000 --> 00:08:23,370

and then and then defeat they kind of

178

00:08:27,980 --> 00:08:26,010

picks it up from the feet once you'd

179

00:08:30,170 --> 00:08:27,990

hold me a wet lettuce leaf yeah but

180

00:08:32,120 --> 00:08:30,180

she's picking up whatever it is has

181

00:08:34,370 --> 00:08:32,130

passed through the shoes is sticking out

182

00:08:36,290 --> 00:08:34,380

so you can pick it up then she dropped

183

00:08:37,790 --> 00:08:36,300

it on the floor this imaginary lettuce

184

00:08:39,140 --> 00:08:37,800

leaves you don't look troubled on the

185

00:08:40,910 --> 00:08:39,150

floor what happens that negative energy

186

00:08:42,410 --> 00:08:40,920

once it goes on the floor what a waste

187

00:08:44,510 --> 00:08:42,420

of any well what happens is that when

188

00:08:49,520 --> 00:08:44,520

the treatment is a patient stands up on

189

00:08:52,190 --> 00:08:49,530

the floor goes back into it so let me

190

00:08:56,360 --> 00:08:52,200

read you the story that was presented at

191

00:08:59,480 --> 00:08:56,370

from the ABC website here in the news

192

00:09:02,360 --> 00:08:59,490

section Healing Touch clinic opens at

193

00:09:06,070 --> 00:09:02,370

James Cook University in Australian

194

00:09:11,120 --> 00:09:06,080

first Australia's first against him home

195

00:09:13,780 --> 00:09:11,130

by Natalie fern bench and this was as

196

00:09:15,980 --> 00:09:13,790

reported what's his updated yesterday

197

00:09:20,180 --> 00:09:15,990

which would be what's today's date

198

00:09:24,730 --> 00:09:20,190

today's date is the 16th 16th so on the

199

00:09:26,810 --> 00:09:24,740

fifteenth of february australia's first

200

00:09:28,880 --> 00:09:26,820

university-based now this is important

201
00:09:30,770 --> 00:09:28,890
to remember Healing Touch clinic has

202
00:09:35,330 --> 00:09:30,780
opened in Townsville at James Cook

203
00:09:39,080 --> 00:09:35,340
University or J see you Healing Touch is

204
00:09:41,240 --> 00:09:39,090
described as an energy balancing therapy

205
00:09:43,400 --> 00:09:41,250
administered through gentle touching and

206
00:09:46,250 --> 00:09:43,410
manipulation of energy from a distance

207
00:09:48,040 --> 00:09:46,260
like spooky action may not speedy action

208
00:09:53,380 --> 00:09:48,050
and distance

209
00:09:55,389 --> 00:09:53,390
similar to Reiki or acupressure they

210
00:09:58,650 --> 00:09:55,399
will solve something but the theater

211
00:10:02,050 --> 00:09:58,660
nurse theatre nurse and healing touch

212
00:10:04,810 --> 00:10:02,060
practitioner tracy jones said treatments

213
00:10:07,630 --> 00:10:04,820

moved the body's energy to promote

214

00:10:12,970 --> 00:10:07,640

healing does that make any sense no

215

00:10:17,620 --> 00:10:12,980

thank you that quote quote what it

216

00:10:20,650 --> 00:10:17,630

really does it unsticks your energy so

217

00:10:23,079 --> 00:10:20,660

you can heal yourself have you ever had

218

00:10:26,350 --> 00:10:23,089

your energy unstuck yet quite payer

219

00:10:27,670 --> 00:10:26,360

wasn't well that's a doesn't sound it

220

00:10:30,460 --> 00:10:27,680

something you want to have your energy

221

00:10:32,380 --> 00:10:30,470

unstuck must be stuck to something in

222

00:10:34,240 --> 00:10:32,390

the business of coming from a

223

00:10:35,590 --> 00:10:34,250

traditional medical background now

224

00:10:38,319 --> 00:10:35,600

that's disappointing because she should

225

00:10:40,449 --> 00:10:38,329

know better Ms Jones said she was

226

00:10:43,180 --> 00:10:40,459

initially skeptical about healing touch

227

00:10:45,850 --> 00:10:43,190

therapy have we heard that before I was

228

00:10:47,350 --> 00:10:45,860

a skip I you are skeptical maybe um

229

00:10:49,660 --> 00:10:47,360

maybe you could yet become a hit to the

230

00:10:52,750 --> 00:10:49,670

Peter touch panel but it's the old story

231

00:10:56,800 --> 00:10:52,760

I was skeptical until until I was the

232

00:10:59,170 --> 00:10:56,810

biggest skeptic until quote for me it

233

00:11:02,410 --> 00:10:59,180

was a real eye-opener to actually

234

00:11:04,510 --> 00:11:02,420

embrace this but I see it working I feel

235

00:11:07,810 --> 00:11:04,520

the energy and other people can feel the

236

00:11:09,490 --> 00:11:07,820

energy to and quote she said now as when

237

00:11:11,699 --> 00:11:09,500

i read that yesterday for the first time

238

00:11:14,290 --> 00:11:11,709

i thought wow ok that's a testable claim

239

00:11:15,970 --> 00:11:14,300

yeah that's an absolutely a testable

240

00:11:18,550 --> 00:11:15,980

claim for the Australian skeptics

241

00:11:21,340 --> 00:11:18,560

\$100,000 rights whether you could feel

242

00:11:23,920 --> 00:11:21,350

the energy although that that was tested

243

00:11:25,720 --> 00:11:23,930

long ago long ago it was which we'll get

244

00:11:28,870 --> 00:11:25,730

to shortly but she's making that claim

245

00:11:31,329 --> 00:11:28,880

now so we'd be happy to test him and the

246

00:11:33,760 --> 00:11:31,339

next headline says weaving complementary

247

00:11:36,550 --> 00:11:33,770

therapies in to study James Cook

248

00:11:39,400 --> 00:11:36,560

University senior lecturer Kristin

249

00:11:41,920 --> 00:11:39,410

wicking said complementary therapies

250

00:11:43,720 --> 00:11:41,930

were not offered as a nursing subject

251
00:11:46,210 --> 00:11:43,730
but students were made aware of the

252
00:11:49,850 --> 00:11:46,220
range of interventions that could be

253
00:11:56,160 --> 00:11:52,980
the healing touch clinic will be used

254
00:11:59,100 --> 00:11:56,170
for student clinical placements and will

255
00:12:02,220 --> 00:11:59,110
be X and will accept cross referrals

256
00:12:06,080 --> 00:12:02,230
from other allied health clinics on

257
00:12:09,150 --> 00:12:06,090
campus yeah that sounds a bit weird as a

258
00:12:13,740 --> 00:12:09,160
quote physiotherapy might be working on

259
00:12:15,750 --> 00:12:13,750
a client from their perspective that's

260
00:12:19,620 --> 00:12:15,760
not odd socially and she moved apart

261
00:12:22,560 --> 00:12:19,630
with all physiotherapy yeah but are

262
00:12:24,810 --> 00:12:22,570
aware that there are other aspects that

263
00:12:27,150 --> 00:12:24,820

we could add to the picture by giving

264

00:12:29,970 --> 00:12:27,160

them Healing Touch treatments and quote

265

00:12:32,570 --> 00:12:29,980

dr. wicking said so we'll just skip on

266

00:12:35,820 --> 00:12:32,580

then there's a photograph thereof

267

00:12:38,540 --> 00:12:35,830

presumably the nurse harnesses c healy

268

00:12:41,070 --> 00:12:38,550

about waving their hand over a patient

269

00:12:42,900 --> 00:12:41,080

doctor working said several several

270

00:12:45,600 --> 00:12:42,910

australian hospitals have healing touch

271

00:12:47,250 --> 00:12:45,610

clinics and services oh really but James

272

00:12:50,390 --> 00:12:47,260

Cook University will be Australia's

273

00:12:55,140 --> 00:12:50,400

first University to host a clinic and

274

00:12:56,640 --> 00:12:55,150

well the story the story goes on you can

275

00:12:58,020 --> 00:12:56,650

read a bit more for yourself i'll

276

00:13:00,320 --> 00:12:58,030

certainly add a link in the show notes

277

00:13:03,330 --> 00:13:00,330

but it's interesting to note that

278

00:13:05,610 --> 00:13:03,340

there's been quite a before over the

279

00:13:07,590 --> 00:13:05,620

last 24 hours about this story all lots

280

00:13:12,660 --> 00:13:07,600

of people jumping online obviously was

281

00:13:16,350 --> 00:13:12,670

people do and i noticed that in the feed

282

00:13:19,410 --> 00:13:16,360

in the news that came up if I can just

283

00:13:21,900 --> 00:13:19,420

find that someone has posted in one of

284

00:13:24,570 --> 00:13:21,910

the comments dr. wicking who completed

285

00:13:27,030 --> 00:13:24,580

her postdoctoral studies on healing

286

00:13:29,040 --> 00:13:27,040

touch said the therapy was well

287

00:13:31,500 --> 00:13:29,050

researched and proven to be effective on

288

00:13:33,540 --> 00:13:31,510

stress related conditions Oh has it

289

00:13:36,330 --> 00:13:33,550

that's interesting well I'd like to see

290

00:13:40,440 --> 00:13:36,340

those papers and then from the ABC

291

00:13:44,130 --> 00:13:40,450

website posted yesterday after all this

292

00:13:46,350 --> 00:13:44,140

sort of erupted ABC North Queensland

293

00:13:49,500 --> 00:13:46,360

thanks for sharing your thoughts on this

294

00:13:52,260 --> 00:13:49,510

topic it goes on to say James Cook

295

00:13:54,600 --> 00:13:52,270

University wishes to clarify that the

296

00:13:57,210 --> 00:13:54,610

university staff are not employed to

297

00:13:59,880 --> 00:13:57,220

work at the clinic quote The Healing

298

00:14:03,090 --> 00:13:59,890

Touch clinic is conducted by Healing

299

00:14:05,520 --> 00:14:03,100

Touch Townsville and not

300

00:14:08,730 --> 00:14:05,530

James Cook University while this clinic

301
00:14:11,160 --> 00:14:08,740
is conducted in a building on James Cook

302
00:14:13,260 --> 00:14:11,170
University Townsville campus james cook

303
00:14:16,050 --> 00:14:13,270
university has no contractual or

304
00:14:18,240 --> 00:14:16,060
financial relationship with it james

305
00:14:20,370 --> 00:14:18,250
cook university does not promote nor

306
00:14:23,100 --> 00:14:20,380
teach healing touch in its science-based

307
00:14:26,550 --> 00:14:23,110
nursing programs I wonder why that is

308
00:14:30,210 --> 00:14:26,560
because it doesn't matter if it's time

309
00:14:32,220 --> 00:14:30,220
space that we know hey if there is proof

310
00:14:34,920 --> 00:14:32,230
of it lets see it but I yeah I've seen

311
00:14:37,350 --> 00:14:34,930
food it does not work but what I'll do

312
00:14:42,540 --> 00:14:37,360
now Steve's I'll play a video clip which

313
00:14:45,600 --> 00:14:42,550

is from ABC America made almost 20 years

314

00:14:48,590 --> 00:14:45,610

ago of a very famous case where Emily

315

00:14:51,660 --> 00:14:48,600

Rosa an 11 year old student at the time

316

00:14:54,480 --> 00:14:51,670

tested therapeutic crafting done right

317

00:14:56,460 --> 00:14:54,490

now in mainstream American Hospital it's

318

00:14:58,290 --> 00:14:56,470

called therapeutic touch and it's

319

00:15:01,320 --> 00:14:58,300

practiced in hundreds of medical centers

320

00:15:03,390 --> 00:15:01,330

even during surgery in Connecticut nurse

321

00:15:05,720 --> 00:15:03,400

and minor does therapeutic touch on Lisa

322

00:15:07,860 --> 00:15:05,730

bracket to help treat her leukemia

323

00:15:10,140 --> 00:15:07,870

tremendous heat coming from your heart

324

00:15:12,540 --> 00:15:10,150

center they feel like they enter the

325

00:15:15,150 --> 00:15:12,550

nurse supposedly feels without touching

326

00:15:17,910 --> 00:15:15,160

three or four inches away feels the

327

00:15:19,590 --> 00:15:17,920

defective energy pouring out I can feel

328

00:15:21,720 --> 00:15:19,600

where the energy is balanced and where

329

00:15:24,810 --> 00:15:21,730

it's not balanced I can feel her it's

330

00:15:26,460 --> 00:15:24,820

intense I can feel it's depleted then

331

00:15:28,590 --> 00:15:26,470

she says she channel's the healing

332

00:15:31,200 --> 00:15:28,600

energy of the universe through her hands

333

00:15:33,510 --> 00:15:31,210

to you there's no scientific proof that

334

00:15:36,300 --> 00:15:33,520

this works but the patient says that

335

00:15:39,140 --> 00:15:36,310

doesn't matter I don't need explanations

336

00:15:42,240 --> 00:15:39,150

because I have faith in the process

337

00:15:46,350 --> 00:15:42,250

that's a really wonderful thing when you

338

00:15:50,040 --> 00:15:46,360

feel helpless terrified when you're

339

00:15:52,560 --> 00:15:50,050

given a diagnosis like I was it's hard

340

00:15:54,240 --> 00:15:52,570

to argue with satisfied patients but two

341

00:15:55,950 --> 00:15:54,250

years ago a nine-year-old girl in

342

00:15:57,810 --> 00:15:55,960

Colorado thought that for her fourth

343

00:15:59,880 --> 00:15:57,820

grade science project she put

344

00:16:02,340 --> 00:15:59,890

therapeutic touch to the test today

345

00:16:04,920 --> 00:16:02,350

we're gonna test you in halle you can

346

00:16:07,440 --> 00:16:04,930

feel the human energy field Emily roses

347

00:16:09,300 --> 00:16:07,450

test was simple she asked practitioners

348

00:16:11,610 --> 00:16:09,310

of therapeutic touch to feel the energy

349

00:16:13,560 --> 00:16:11,620

from her hand but first she had them put

350

00:16:15,840 --> 00:16:13,570

their hand through a towel and piece of

351
00:16:16,660 --> 00:16:15,850
cardboard so they couldn't see where her

352
00:16:19,090 --> 00:16:16,670
hand was

353
00:16:21,460 --> 00:16:19,100
she didn't ask them to heal anything she

354
00:16:24,010 --> 00:16:21,470
just asked the most basic question tell

355
00:16:28,660 --> 00:16:24,020
me which of your hands you think my hand

356
00:16:32,580 --> 00:16:28,670
is over left again and again touch

357
00:16:34,720 --> 00:16:32,590
therapists failed the test theft

358
00:16:37,090 --> 00:16:34,730
amazingly they kept volunteering to take

359
00:16:38,770 --> 00:16:37,100
the test and even when they failed to do

360
00:16:40,090 --> 00:16:38,780
better at picking the correct hand and

361
00:16:44,080 --> 00:16:40,100
they would have done flipping a coin

362
00:16:46,420 --> 00:16:44,090
right their faith and their skills was

363
00:16:48,670 --> 00:16:46,430

not dimmed this woman guessed right only

364

00:16:52,200 --> 00:16:48,680

three times out of 10 how do you think

365

00:16:59,800 --> 00:16:52,210

the test went I think it went very well

366

00:17:02,860 --> 00:16:59,810

k you got one right so were they

367

00:17:05,470 --> 00:17:02,870

embarrassed no not really sometime

368

00:17:08,170 --> 00:17:05,480

around of 10 right they thought you'd

369

00:17:12,700 --> 00:17:08,180

pass and obviously they didn't know

370

00:17:14,260 --> 00:17:12,710

there's two sis statistics we asked more

371

00:17:16,330 --> 00:17:14,270

than a dozen therapeutic touch

372

00:17:21,600 --> 00:17:16,340

specialists to come here and take your

373

00:17:25,990 --> 00:17:21,610

test and not one would that surprise you

374

00:17:29,590 --> 00:17:26,000

know why is lots of people think that I

375

00:17:31,660 --> 00:17:29,600

scared him really good well not that

376

00:17:33,190 --> 00:17:31,670

good though Emily's test got publicity

377

00:17:34,570 --> 00:17:33,200

it was published in the prestigious

378

00:17:37,450 --> 00:17:34,580

journal of the american medical

379

00:17:40,630 --> 00:17:37,460

association since then therapeutic touch

380

00:17:42,160 --> 00:17:40,640

is practiced more than ever 80,000

381

00:17:44,290 --> 00:17:42,170

practitioners most of them registered

382

00:17:46,120 --> 00:17:44,300

nurses who say they can feel the human

383

00:17:48,610 --> 00:17:46,130

energy field by passing their hands over

384

00:17:50,260 --> 00:17:48,620

the body she I'll give them a million

385

00:17:52,150 --> 00:17:50,270

dollars that they can prove that in a

386

00:17:54,190 --> 00:17:52,160

simple test that will take less than 20

387

00:17:57,610 --> 00:17:54,200

minutes do i hear anybody at the door

388

00:17:59,470 --> 00:17:57,620

John know where are they scientists say

389

00:18:01,840 --> 00:17:59,480

it's not the therapeutic touch or voodoo

390

00:18:04,180 --> 00:18:01,850

directly do anything physically to

391

00:18:05,680 --> 00:18:04,190

anyone it's just that if you believe in

392

00:18:08,830 --> 00:18:05,690

them they sometimes could have an effect

393

00:18:11,560 --> 00:18:08,840

the placebo effect is called if you

394

00:18:14,590 --> 00:18:11,570

think a therapy will work that alone may

395

00:18:17,950 --> 00:18:14,600

make you feel better Group one will be

396

00:18:21,670 --> 00:18:17,960

getting a substance that is will they

397

00:18:23,800 --> 00:18:21,680

you guys Steve almost 20 years ago this

398

00:18:26,110 --> 00:18:23,810

topic was tackled by the live in your

399

00:18:28,480 --> 00:18:26,120

own girl as you published a paper on it

400

00:18:29,360 --> 00:18:28,490

yeah yeah wallpaper is a very simple

401

00:18:30,710 --> 00:18:29,370

test switch

402

00:18:33,290 --> 00:18:30,720

reliving your own could devise a

403

00:18:36,260 --> 00:18:33,300

minister no they basically stick their

404

00:18:38,630 --> 00:18:36,270

hands full screen and she hovers her

405

00:18:40,910 --> 00:18:38,640

hand over one hand or the other yeah and

406

00:18:43,340 --> 00:18:40,920

the patient the patient can't tell which

407

00:18:44,630 --> 00:18:43,350

that she says he's over the left handle

408

00:18:47,810 --> 00:18:44,640

the right hand and they have to guess

409

00:18:51,530 --> 00:18:47,820

and we can wait tables and Jesus weights

410

00:18:53,060 --> 00:18:51,540

and it comes out 5050 so I imagine that

411

00:18:55,310 --> 00:18:53,070

I think that would be a very similar

412

00:18:58,010 --> 00:18:55,320

test we could conduct today on this

413

00:19:00,290 --> 00:18:58,020

these people from ya up there in

414

00:19:01,850 --> 00:19:00,300

Queensland who are promoting this clinic

415

00:19:03,620 --> 00:19:01,860

and say it's proof or they say they can

416

00:19:05,150 --> 00:19:03,630

feel the energy of great we can do that

417

00:19:06,799 --> 00:19:05,160

if they can feel the energy the money's

418

00:19:08,240 --> 00:19:06,809

there is what if it works Australia

419

00:19:10,100 --> 00:19:08,250

skeptics offers a hundred thousand

420

00:19:11,299 --> 00:19:10,110

dollar prize for demonstrations about

421

00:19:13,820 --> 00:19:11,309

that but actually a hundred thousand

422

00:19:16,250 --> 00:19:13,830

dollars will be nothing compared to the

423

00:19:17,930 --> 00:19:16,260

benefits that will flow for it if it did

424

00:19:19,790 --> 00:19:17,940

work if a good work if you could get

425

00:19:22,070 --> 00:19:19,800

treatment with just the bare hand yeah

426

00:19:23,750 --> 00:19:22,080

no equipment that's worth on the grind

427

00:19:25,580 --> 00:19:23,760

of anybody's money so that's one of the

428

00:19:27,140 --> 00:19:25,590

old stories of course people say are you

429

00:19:29,240 --> 00:19:27,150

skeptics you don't have the money or you

430

00:19:30,710 --> 00:19:29,250

wouldn't give it to us if we passed your

431

00:19:33,140 --> 00:19:30,720

test you know we're not going to your

432

00:19:36,380 --> 00:19:33,150

test meaning in a let me do it but the I

433

00:19:37,669 --> 00:19:36,390

but of course and even with a million

434

00:19:39,980 --> 00:19:37,679

dollars in the United States as well

435

00:19:42,350 --> 00:19:39,990

look at it if you can pass the test then

436

00:19:44,450 --> 00:19:42,360

what's this money who cares yeah their

437

00:19:46,340 --> 00:19:44,460

money you know if you can do what you

438

00:19:48,770 --> 00:19:46,350

play you learn care about a hundred

439

00:19:50,900 --> 00:19:48,780

felonies are printing all that you could

440

00:19:52,310 --> 00:19:50,910

yeah I mean \$100,000 it sounds like a

441

00:19:54,080 --> 00:19:52,320

lot of money but you can't even buy a

442

00:19:57,560 --> 00:19:54,090

house in Sydney for that paltry amount

443

00:19:59,390 --> 00:19:57,570

him yeah but we tested a dowser once he

444

00:20:02,930 --> 00:19:59,400

could divine water with a bent stick

445

00:20:04,669 --> 00:20:02,940

around and he got 12 little 20 right you

446

00:20:06,620 --> 00:20:04,679

know and he said I did pretty well you

447

00:20:08,180 --> 00:20:06,630

know I'm pretty good at this I can look

448

00:20:10,250 --> 00:20:08,190

forward or 20 right and I said well

449

00:20:11,990 --> 00:20:10,260

actually today we've conducted nearly a

450

00:20:13,430 --> 00:20:12,000

hundred tests and you know someone's

451
00:20:15,440 --> 00:20:13,440
going to get 12 someone's going to get

452
00:20:17,570 --> 00:20:15,450
eight yes it's on you get four teams

453
00:20:19,640 --> 00:20:17,580
somebody else did and it's actually not

454
00:20:22,430 --> 00:20:19,650
significant it's just an ordinary result

455
00:20:24,530 --> 00:20:22,440
the guy hundin harms him using front of

456
00:20:27,140 --> 00:20:24,540
his wife and mate singer you said well

457
00:20:29,090 --> 00:20:27,150
like I'm happy to be ordinary and I said

458
00:20:31,880 --> 00:20:29,100
well that's actually very very wise

459
00:20:33,890 --> 00:20:31,890
because if you really could do this you

460
00:20:36,350 --> 00:20:33,900
know your life will be miserable maybe

461
00:20:36,989 --> 00:20:36,360
everybody would wonder you do any oil in

462
00:20:40,319 --> 00:20:36,999
the ground

463
00:20:42,479 --> 00:20:40,329

and weapons Orban landmines and you'd be

464

00:20:45,149 --> 00:20:42,489

much in demand and every time you failed

465

00:20:46,759 --> 00:20:45,159

you get told off and there you really

466

00:20:50,359 --> 00:20:46,769

you're better off just being ordinary

467

00:20:52,529 --> 00:20:50,369

let's just enjoy life just enjoy it and

468

00:20:54,479 --> 00:20:52,539

well I mean it's good that when people

469

00:20:56,849 --> 00:20:54,489

do actually come to be tested we do we

470

00:20:58,529 --> 00:20:56,859

do appreciate it and if you want to be

471

00:21:00,749 --> 00:20:58,539

tested for therapeutic touch just to

472

00:21:02,309 --> 00:21:00,759

head to skeptics calm delay you and find

473

00:21:05,369 --> 00:21:02,319

out all the details but in the meantime

474

00:21:07,109 --> 00:21:05,379

Steve I think we can sit back grab some

475

00:21:10,379 --> 00:21:07,119

popcorn and keep watching the fallout

476
00:21:12,059 --> 00:21:10,389
that's headed up north to the James Cook

477
00:21:14,399 --> 00:21:12,069
University for even being associated

478
00:21:16,379 --> 00:21:14,409
with this nonsense well the communities

479
00:21:18,299 --> 00:21:16,389
has dissociated themselves from it but

480
00:21:21,539 --> 00:21:18,309
it happens it building on their campus

481
00:21:24,419 --> 00:21:21,549
yeah I wonder what else is hanging

482
00:21:26,519 --> 00:21:24,429
around on their campus the things get

483
00:21:28,289 --> 00:21:26,529
referred to change that's right who

484
00:21:29,849 --> 00:21:28,299
knows what's going on there are dowsing

485
00:21:31,829 --> 00:21:29,859
lessons or something thing well as I

486
00:21:34,769 --> 00:21:31,839
bill me like to send patients there or

487
00:21:37,919 --> 00:21:34,779
whatever but yeah they have dissociated

488
00:21:39,779 --> 00:21:37,929

themselves for it formally oh well as we

489

00:21:41,609 --> 00:21:39,789

say watch this space for further

490

00:21:44,279 --> 00:21:41,619

developments all the links to the videos

491

00:21:46,559 --> 00:21:44,289

and the articles folks on this week's

492

00:21:50,300 --> 00:21:46,569

show notes Steve thanks very much for

493

00:22:09,440 --> 00:21:57,590

[Music]

494

00:22:12,800 --> 00:22:09,450

and now direct from the cafe at

495

00:22:20,180 --> 00:22:12,810

Australia's science channel its brouhaha

496

00:22:22,490 --> 00:22:20,190

with Casey Harrigan interplanetary space

497

00:22:24,290 --> 00:22:22,500

travel just ain't what it used to be yep

498

00:22:26,000 --> 00:22:24,300

go on to the days of the future was

499

00:22:28,490 --> 00:22:26,010

falling asleep in Earth neighborhood and

500

00:22:31,910 --> 00:22:28,500

waking up light years later in a galaxy

501
00:22:34,580 --> 00:22:31,920
far far away the future of the future is

502
00:22:36,680 --> 00:22:34,590
nothing an American company is working

503
00:22:38,750 --> 00:22:36,690
on a stasis chamber where the ash shorts

504
00:22:41,420 --> 00:22:38,760
would be cooled down so much they would

505
00:22:44,390 --> 00:22:41,430
enter therapeutic hypothermia so far so

506
00:22:46,460 --> 00:22:44,400
good but here's the twist a fortnight

507
00:22:48,680 --> 00:22:46,470
later they'd be stretching and yawning

508
00:22:50,510 --> 00:22:48,690
and wiping two weeks worth of that we

509
00:22:52,550 --> 00:22:50,520
had crossed out of their eyes they

510
00:22:54,230 --> 00:22:52,560
probably have some brekkie check their

511
00:22:55,820 --> 00:22:54,240
news feeds take care of any astronaut

512
00:22:57,950 --> 00:22:55,830
business and then it's time to climb

513
00:23:00,410 --> 00:22:57,960

back in for another nap sounds pretty

514

00:23:02,300 --> 00:23:00,420

great actually not only would this be

515

00:23:04,130 --> 00:23:02,310

safer than continuous suspended

516

00:23:05,780 --> 00:23:04,140

animation but the astronauts could be on

517

00:23:08,000 --> 00:23:05,790

different sleep cycles so they would

518

00:23:10,280 --> 00:23:08,010

always be at least one person awake to

519

00:23:12,410 --> 00:23:10,290

monitor the spaceship and I'm not saying

520

00:23:14,630 --> 00:23:12,420

that person should pull pranks and all

521

00:23:19,470 --> 00:23:14,640

those other sleeping astronauts I'm just

522

00:23:25,330 --> 00:23:23,020

we've all been hacked my news feeds were

523

00:23:28,330 --> 00:23:25,340

once a safe haven of puppies cephalopods

524

00:23:30,370 --> 00:23:28,340

and rocket ships but lately every time I

525

00:23:32,770 --> 00:23:30,380

log in I'm getting way more politics and

526

00:23:34,990 --> 00:23:32,780

planets and I know I'm not alone but

527

00:23:37,780 --> 00:23:35,000

here at brewhaha we know that the best

528

00:23:39,640 --> 00:23:37,790

defense is a good offense so like the

529

00:23:42,250 --> 00:23:39,650

good scientists we are we want to run an

530

00:23:44,080 --> 00:23:42,260

experiment our hypothesis is that the

531

00:23:46,000 --> 00:23:44,090

more science we put out the more we'll

532

00:23:49,270 --> 00:23:46,010

get back on our feet and there's only

533

00:23:51,310 --> 00:23:49,280

one way to find out let's do it share

534

00:23:54,220 --> 00:23:51,320

your science stories it's going to be

535

00:23:56,380 --> 00:23:54,230

really easy step one find a good science

536

00:23:58,570 --> 00:23:56,390

story step 2 share it on your social

537

00:24:01,660 --> 00:23:58,580

media and use the hashtag share science

538

00:24:03,580 --> 00:24:01,670

and step 3 what's your feed transform

539

00:24:06,130 --> 00:24:03,590

from an orange blob into a kaleidoscope

540

00:24:08,110 --> 00:24:06,140

of science so whether you're telling

541

00:24:10,030 --> 00:24:08,120

your own story introducing the world to

542

00:24:12,520 --> 00:24:10,040

your favorite scientist or shedding some

543

00:24:15,220 --> 00:24:12,530

light on a mind-blowing discovery get it

544

00:24:17,440 --> 00:24:15,230

out there share it today don't even wait

545

00:24:20,899 --> 00:24:17,450

do it right now let's take back our news

546

00:24:24,229 --> 00:24:20,909

feeds hashtag share science

547

00:24:37,519 --> 00:24:24,239

for more brouhaha and Australian science

548

00:24:41,779 --> 00:24:37,529

head for ww Australia science TV from

549

00:24:45,799 --> 00:24:41,789

the Glasgow skeptics homeopathy in the

550

00:24:47,839 --> 00:24:45,809

UK with Michael Marshall now this is

551
00:24:53,659 --> 00:24:47,849
happening on the twenty-seventh of march

552
00:24:58,519 --> 00:24:53,669
from 7pm the Admiral bar 72 a waterloo

553
00:25:00,560 --> 00:24:58,529
street in glasgow homeopathy is one of

554
00:25:03,080 --> 00:25:00,570
the most widely debunked forms of

555
00:25:05,629 --> 00:25:03,090
alternative medicine yet homeopathic

556
00:25:08,419 --> 00:25:05,639
remedies adorn the shelves of respected

557
00:25:12,320 --> 00:25:08,429
pharmacies and are funded by taxpayers

558
00:25:14,330 --> 00:25:12,330
on the NHS how big of a problem is this

559
00:25:17,330 --> 00:25:14,340
using information and personal

560
00:25:19,509 --> 00:25:17,340
experiences gathered during his last six

561
00:25:22,879 --> 00:25:19,519
years of campaigning against homeopathy

562
00:25:25,249 --> 00:25:22,889
Michael Marshall will highlight how much

563
00:25:27,499 --> 00:25:25,259

money is spent on homeopathic remedies

564

00:25:30,289 --> 00:25:27,509

and how this gives undeserved

565

00:25:32,690 --> 00:25:30,299

credibility to homeopathy how such

566

00:25:36,259 --> 00:25:32,700

remedies can lead to genuine harm and

567

00:25:38,450 --> 00:25:36,269

what you can do to help this event is

568

00:25:40,430 --> 00:25:38,460

free to attend although they will be

569

00:25:42,169 --> 00:25:40,440

asking for donations at the end of the

570

00:25:44,869 --> 00:25:42,179

talk but you are under no obligation

571

00:25:48,560 --> 00:25:44,879

whatsoever to donate maybe you can

572

00:25:50,899 --> 00:25:48,570

donate homeopathic Lee hmm however any

573

00:25:53,180 --> 00:25:50,909

money that is donated is used to fund

574

00:25:56,060 --> 00:25:53,190

the overhead costs and travel and

575

00:25:58,129 --> 00:25:56,070

accommodation for speakers so that's

576

00:26:02,180 --> 00:25:58,139

homeopathy in the UK with Michael

577

00:26:05,629 --> 00:26:02,190

Marshall the 27th of March at 7pm the

578

00:26:07,969 --> 00:26:05,639

Admiral bar 72 a waterloo street in

579

00:26:10,249 --> 00:26:07,979

glasgow for more information check out

580

00:26:13,070 --> 00:26:10,259

the facebook page of the glasgow

581

00:26:14,620 --> 00:26:13,080

skeptics or just follow the links from

582

00:26:34,040 --> 00:26:14,630

this week's show knows

583

00:26:34,050 --> 00:26:42,879

[Music]

584

00:26:48,529 --> 00:26:46,249

well we're hearing now what near the MCG

585

00:26:50,600 --> 00:26:48,539

the the cricket ground in Melbourne I'm

586

00:26:52,340 --> 00:26:50,610

here over dr. Steve Steve Roberts hello

587

00:26:54,230 --> 00:26:52,350

Steve indeed good morning Richard good

588

00:26:58,519 --> 00:26:54,240

morning it's a nice overcast morning

589

00:26:59,659 --> 00:26:58,529

we're on a bike ride ah for science you

590

00:27:01,249 --> 00:26:59,669

know I'm glad you could come to

591

00:27:03,830 --> 00:27:01,259

Melbourne for the overcast season which

592

00:27:05,659 --> 00:27:03,840

is this january to december hello who is

593

00:27:07,820 --> 00:27:05,669

welcome to right now i'm here to see the

594

00:27:09,649 --> 00:27:07,830

overcast skies I just came from heat

595

00:27:13,970 --> 00:27:09,659

wave Sydney to a nice cool Christmas Mel

596

00:27:15,799 --> 00:27:13,980

45 insidious only it's 90 s Elvin yeah

597

00:27:17,840 --> 00:27:15,809

we need the mobile quick counter near

598

00:27:20,690 --> 00:27:17,850

richmond station there's a big football

599

00:27:22,310 --> 00:27:20,700

field and park here by tried will start

600

00:27:24,230 --> 00:27:22,320

from the eggs we can meet and go yakety

601
00:27:26,840 --> 00:27:24,240
yak and then we take off alone bike

602
00:27:28,639 --> 00:27:26,850
paths and keep writing yeah but the goal

603
00:27:31,850 --> 00:27:28,649
today is to actually go down to the

604
00:27:35,119 --> 00:27:31,860
coast nissin kilda is that if i'm right

605
00:27:37,009 --> 00:27:35,129
yeah and look at a scale model of the

606
00:27:39,049 --> 00:27:37,019
solar system that's right you about 20

607
00:27:41,659 --> 00:27:39,059
years ago some maniac of astronomers

608
00:27:43,940 --> 00:27:41,669
built a billy a billion-to-one scale

609
00:27:46,850 --> 00:27:43,950
model so the Sun is about four feet

610
00:27:49,610 --> 00:27:46,860
across one point three meters so I and

611
00:27:51,169 --> 00:27:49,620
the planets are like 50 meters Mercury

612
00:27:53,450 --> 00:27:51,179
Venus Earth Mars a 50-meter intervals

613
00:27:55,580 --> 00:27:53,460

from that minute some killer waters of

614

00:27:57,289 --> 00:27:55,590

Jupiter and there's seven kilometers to

615

00:27:58,940 --> 00:27:57,299

Pluto which of course was a planet when

616

00:28:00,590 --> 00:27:58,950

they built the model yes we're going to

617

00:28:02,539 --> 00:28:00,600

see all that this morning sir so our

618

00:28:05,060 --> 00:28:02,549

goal is to ride from here and that'll

619

00:28:06,619 --> 00:28:05,070

take us what to get to an hour that's

620

00:28:08,990 --> 00:28:06,629

all right then we have a cup of coffee

621

00:28:10,850 --> 00:28:09,000

yeah the cafe there's and then check out

622

00:28:12,379 --> 00:28:10,860

the the solar system so I'd end up back

623

00:28:15,289 --> 00:28:12,389

in the middle of Melbourne about midday

624

00:28:17,899 --> 00:28:15,299

yeah this sounds like a nice way to

625

00:28:19,460 --> 00:28:17,909

spend a morning actually or a day yeah

626
00:28:20,600 --> 00:28:19,470
well we've got you back about lunchtime

627
00:28:26,220 --> 00:28:20,610
in the city and of course that's

628
00:28:30,460 --> 00:28:28,990
he's there now you will call out because

629
00:28:32,950 --> 00:28:30,470
you can't be stopped on that path you

630
00:28:34,480 --> 00:28:32,960
know but we're going to be media stars

631
00:28:38,140 --> 00:28:34,490
they are going to be media stars i'm

632
00:28:40,600 --> 00:28:38,150
here at the Sun Steve Roberts indeed you

633
00:28:43,860 --> 00:28:40,610
are over to do this is a standing right

634
00:28:47,440 --> 00:28:43,870
next to a scale model of this hot oh yes

635
00:28:49,630 --> 00:28:47,450
about four feet across it is i'm right

636
00:28:51,370 --> 00:28:49,640
here on the coast and we can walk right

637
00:28:54,400 --> 00:28:51,380
around i've done a pretty good job to

638
00:28:57,600 --> 00:28:54,410

try and represent in this metal the the

639

00:29:01,270 --> 00:28:57,610

surface of the sun I see ya and if we

640

00:29:02,470 --> 00:29:01,280

gaze down the path there we can start to

641

00:29:05,260 --> 00:29:02,480

see other planets which we'll get to

642

00:29:07,090 --> 00:29:05,270

shortly in DB will ya about the size of

643

00:29:10,240 --> 00:29:07,100

a pea or grain of ice if you're lucky

644

00:29:11,860 --> 00:29:10,250

yeah yo dundo scale 1 billion to one and

645

00:29:14,140 --> 00:29:11,870

what's this over here as other please

646

00:29:16,930 --> 00:29:14,150

love them it's a lump we'll just walk

647

00:29:18,490 --> 00:29:16,940

over here we'll explain what it is is

648

00:29:21,190 --> 00:29:18,500

this not the Sun is not made of this

649

00:29:23,740 --> 00:29:21,200

stuff whatever it is yeah we're not sure

650

00:29:27,549 --> 00:29:23,750

what that is what's it say beyond the

651
00:29:32,409 --> 00:29:27,559
solar system I used to mean to be a bit

652
00:29:35,049 --> 00:29:32,419
of interstellar glob oh okay not exactly

653
00:29:36,040 --> 00:29:35,059
sure we're right near a skateboard park

654
00:29:39,220 --> 00:29:36,050
and

655
00:29:41,200 --> 00:29:39,230
as the road just over there so I'm with

656
00:29:43,600 --> 00:29:41,210
a group of about eight other people or

657
00:29:46,540 --> 00:29:43,610
been riding through Melbourne which has

658
00:29:50,080 --> 00:29:46,550
been absolutely delightful 11 kilometres

659
00:29:54,880 --> 00:29:50,090
so far and now we're off to explore the

660
00:30:00,250 --> 00:29:54,890
rest of the solar system now we've

661
00:30:02,860 --> 00:30:00,260
written about 30 seconds down to mercury

662
00:30:04,480 --> 00:30:02,870
and we're all having to lean in and look

663
00:30:08,320 --> 00:30:04,490

carefully because mercury is hardly

664

00:30:12,460 --> 00:30:08,330

there at all on the scale it's tiny it's

665

00:30:14,980 --> 00:30:12,470

about the size of a white Toyota lead at

666

00:30:17,560 --> 00:30:14,990

the half a peek not even that but you're

667

00:30:19,690 --> 00:30:17,570

two grains of rice so here we are at

668

00:30:22,480 --> 00:30:19,700

mercury seeing else more that is we gaze

669

00:30:26,740 --> 00:30:22,490

back to the Sun and that's quite a

670

00:30:29,650 --> 00:30:26,750

distance on this scale that's quite

671

00:30:31,840 --> 00:30:29,660

interesting to see the distance over to

672

00:30:38,259 --> 00:30:31,850

the Sun which we can now see in the

673

00:30:42,139 --> 00:30:40,490

in fact I think I'll walk the distance

674

00:30:49,960 --> 00:30:42,149

to Venus because I can just see it down

675

00:30:54,649 --> 00:30:49,970

here so now traveling through the

676
00:31:01,909 --> 00:30:54,659
through the space between Mercury and

677
00:31:05,450 --> 00:31:01,919
Venus which doesn't take long at this

678
00:31:13,070 --> 00:31:05,460
scale and this I can see it coming up

679
00:31:19,190 --> 00:31:13,080
now on its plinth and here it is i'll

680
00:31:27,620 --> 00:31:24,590
I have a quick look at Venus before we

681
00:31:29,750 --> 00:31:27,630
travel onto the earth Venus here it is

682
00:31:32,690 --> 00:31:29,760
and it's about the size of a large p l

683
00:31:36,590 --> 00:31:32,700
suppose it's just fascinating I can look

684
00:31:39,350 --> 00:31:36,600
back and the Sun is now getting further

685
00:31:42,710 --> 00:31:39,360
and further away so it's off to the next

686
00:31:46,340 --> 00:31:42,720
planet which is Earth this is quite a

687
00:31:47,930 --> 00:31:46,350
yeah it's a nice day out too because i'm

688
00:31:53,120 --> 00:31:47,940

right by the water now you can hear the

689

00:31:59,149 --> 00:31:53,130

seagulls in the background and here's

690

00:32:01,399 --> 00:31:59,159

earth it was quite cute they've got

691

00:32:05,779 --> 00:32:01,409

earth and the moon as well on the same

692

00:32:07,730 --> 00:32:05,789

plinth now we turn around look the Sun

693

00:32:10,159 --> 00:32:07,740

is getting further and further away into

694

00:32:15,379 --> 00:32:10,169

the distance that's quite interesting

695

00:32:18,320 --> 00:32:15,389

okay now on to the next planet come to

696

00:32:20,870 --> 00:32:18,330

Mars Mars honest little plinth about the

697

00:32:22,669 --> 00:32:20,880

size of a small pee again I like to look

698

00:32:25,850 --> 00:32:22,679

back where's the Sun oh there it is

699

00:32:28,789 --> 00:32:25,860

right in the distance now further and

700

00:32:30,620 --> 00:32:28,799

further away and some of my friends have

701
00:32:38,029 --> 00:32:30,630
all ridden off without me I better hurry

702
00:32:40,310 --> 00:32:38,039
along to Jupiter okay now the first

703
00:32:45,490 --> 00:32:40,320
planets we could walk to from the Sun

704
00:32:48,320 --> 00:32:45,500
quite easily look back the Jupiter

705
00:32:51,289 --> 00:32:48,330
Jupiter distance from master duper of

706
00:32:53,269 --> 00:32:51,299
this scale meant I had to jump on my

707
00:32:58,519 --> 00:32:53,279
bike and right after everybody else and

708
00:33:01,879 --> 00:32:58,529
I'm looking back and I can't see the Sun

709
00:33:05,029 --> 00:33:01,889
anymore it's so far away in the distance

710
00:33:08,180 --> 00:33:05,039
in the background and we can walk over

711
00:33:09,769 --> 00:33:08,190
here now and we can have a look at

712
00:33:12,230 --> 00:33:09,779
Jupiter Jupiter's behind a little fence

713
00:33:13,570 --> 00:33:12,240

though it's behind some it's being

714

00:33:17,200 --> 00:33:13,580

worked on

715

00:33:18,730 --> 00:33:17,210

and that's the size of a long ball it

716

00:33:20,830 --> 00:33:18,740

even actually looks like it look like it

717

00:33:22,570 --> 00:33:20,840

looks like a long ball it's actually old

718

00:33:25,480 --> 00:33:22,580

late like a lawn bowls it's spinning

719

00:33:28,780 --> 00:33:25,490

fought it spins in 10 hours it's been so

720

00:33:31,300 --> 00:33:28,790

fast it flows out at the equator yeah he

721

00:33:33,820 --> 00:33:31,310

has a oval shape not not not spherical

722

00:33:36,700 --> 00:33:33,830

onset of biased on it's just me would

723

00:33:38,410 --> 00:33:36,710

not a plate yeah actually rotated be 10

724

00:33:41,170 --> 00:33:38,420

hour so she look at you look at the

725

00:33:44,190 --> 00:33:41,180

tesco you can see it moves of course and

726

00:33:47,140 --> 00:33:44,200

it's interesting when you actually

727

00:33:48,880 --> 00:33:47,150

travel the distance between Mars and

728

00:33:51,250 --> 00:33:48,890

Jupiter that's a big distance yeah

729

00:33:53,410 --> 00:33:51,260

that's a big dish that Sahara kilometer

730

00:33:55,450 --> 00:33:53,420

and we can't see the Sun anymore I can

731

00:33:57,790 --> 00:33:55,460

see where it is sawdust you can't see

732

00:33:59,440 --> 00:33:57,800

itself know about a kilometer now

733

00:34:01,450 --> 00:33:59,450

actually they they haven't done the

734

00:34:04,270 --> 00:34:01,460

asteroid belt okay they're done earth

735

00:34:05,740 --> 00:34:04,280

Venus Earth yeah Mars and the Dungey we

736

00:34:07,120 --> 00:34:05,750

haven't got a model of the asteroid we

737

00:34:09,370 --> 00:34:07,130

sort of road through it I think it's

738

00:34:11,710 --> 00:34:09,380

well actually over there somewhere the

739

00:34:14,730 --> 00:34:11,720

model makers didn't think of this but

740

00:34:17,260 --> 00:34:14,740

you see the sand on the beach yeah okay

741

00:34:19,780 --> 00:34:17,270

the put the grains of sand on the beach

742

00:34:22,780 --> 00:34:19,790

oh that's it about the right number and

743

00:34:23,980 --> 00:34:22,790

about the right size of the estero you

744

00:34:26,680 --> 00:34:23,990

know there's a lot of material we're

745

00:34:31,630 --> 00:34:26,690

right next to the beach now is some

746

00:34:34,810 --> 00:34:31,640

billions you know the Sandvik Anna all

747

00:34:42,220 --> 00:34:34,820

right so off on to Saturn yeah all right

748

00:34:47,359 --> 00:34:44,599

we've reached sat in his path going

749

00:34:49,369 --> 00:34:47,369

there and who's down to sort of one

750

00:34:52,460 --> 00:34:49,379

kilometer there was doubt a 50 metres

751

00:34:54,859 --> 00:34:52,470

thick 40 metres thick really and last

752

00:34:56,329 --> 00:34:54,869

hour there were ten meters thick and on

753

00:34:58,609 --> 00:34:56,339

that scale that would be one atom thick

754

00:35:00,440 --> 00:34:58,619

on the model when you cut your finger on

755

00:35:02,240 --> 00:35:00,450

it now that was quite a distance we've

756

00:35:04,220 --> 00:35:02,250

just come from Jupiter to hear about a

757

00:35:05,779 --> 00:35:04,230

kilometer yeah yeah it's amazing where I

758

00:35:07,910 --> 00:35:05,789

was a ride to think we must have missed

759

00:35:10,400 --> 00:35:07,920

it because we kept riding and riding and

760

00:35:11,809 --> 00:35:10,410

no sadly but here it is yeah we get that

761

00:35:13,490 --> 00:35:11,819

feeling when you get to the other parts

762

00:35:16,670 --> 00:35:13,500

but you're there Saturn Saturn's are all

763

00:35:19,099 --> 00:35:16,680

gasp it might have been water and other

764

00:35:21,799 --> 00:35:19,109

wings most parts have been more

765

00:35:25,510 --> 00:35:21,809

spectacular Saturn and there's different

766

00:35:28,190 --> 00:35:25,520

tongue there's gaps in the wings and

767

00:35:29,900 --> 00:35:28,200

Shepherd moons and things the Sun is now

768

00:35:31,819 --> 00:35:29,910

way back around the corner and down

769

00:35:33,559 --> 00:35:31,829

there you can't say which behind things

770

00:35:36,289 --> 00:35:33,569

but even if we could see it directly I

771

00:35:38,450 --> 00:35:36,299

mean it'd be the son of a of tiny yeah

772

00:35:40,990 --> 00:35:38,460

behind that building about as far again

773

00:35:43,819 --> 00:35:41,000

as the building yeah yeah so that's

774

00:35:45,349 --> 00:35:43,829

quite a big deal to how many rings does

775

00:35:46,940 --> 00:35:45,359

that in half I don't think anybody knows

776

00:35:51,019 --> 00:35:46,950

really many weeks thousands of things

777

00:35:58,910 --> 00:35:51,029

yeah it develops in it there's about 30

778

00:36:02,450 --> 00:35:58,920

I that's cold yeah while the week the

779

00:36:04,730 --> 00:36:02,460

Rings arm it's got about 80 booms I mean

780

00:36:06,440 --> 00:36:04,740

there's got some five big booms but it's

781

00:36:08,870 --> 00:36:06,450

got smaller ones and the views

782

00:36:11,480 --> 00:36:08,880

themselves are made of lumps of rock and

783

00:36:13,370 --> 00:36:11,490

whatnot so their beans all strictly moon

784

00:36:15,440 --> 00:36:13,380

so it's got billions of moons yeah yeah

785

00:36:17,120 --> 00:36:15,450

yeah yeah no stop counting them because

786

00:36:19,069 --> 00:36:17,130

the wings are held in place by moons

787

00:36:22,339 --> 00:36:19,079

they called Shepherd moons and they

788

00:36:23,690 --> 00:36:22,349

clear a gap in de in the vegan I think

789

00:36:26,089 --> 00:36:23,700

there's a probe just about to go through

790

00:36:27,559 --> 00:36:26,099

some of these days staring at you house

791

00:36:29,120 --> 00:36:27,569

through the Rings yeah that you might

792

00:36:31,190 --> 00:36:29,130

disturb the wings doing that because

793

00:36:33,769 --> 00:36:31,200

they are delicately gravity bound in

794

00:36:35,930 --> 00:36:33,779

reckon you little bit like that driving

795

00:36:38,599 --> 00:36:35,940

something like a far drive going to a

796

00:36:40,760 --> 00:36:38,609

swamp you go slush vandalism there are

797

00:36:42,410 --> 00:36:40,770

two moons that fall over each other ones

798

00:36:45,040 --> 00:36:42,420

ahead there with the orbit like that and

799

00:36:47,170 --> 00:36:45,050

they turn over they go like that

800

00:36:49,810 --> 00:36:47,180

as the plane of the Rings the same plane

801

00:36:53,040 --> 00:36:49,820

as the solvent no no it's not it's

802

00:36:56,650 --> 00:36:53,050

tilted and that every 20 years umm

803

00:37:01,200 --> 00:36:56,660

salamah Sun in 24 years you see the

804

00:37:03,250 --> 00:37:01,210

wings go age on some moment okay and

805

00:37:05,980 --> 00:37:03,260

well know that the wings would just

806

00:37:07,840 --> 00:37:05,990

formed Saturn's rotating that way the

807

00:37:09,940 --> 00:37:07,850

rotation not the same as the plane they

808

00:37:12,400 --> 00:37:09,950

Sabine's rotating with a with the planet

809

00:37:13,930 --> 00:37:12,410

so they are tilted and sometimes you see

810

00:37:16,720 --> 00:37:13,940

the mage on like that sometimes you see

811

00:37:20,020 --> 00:37:16,730

them you know some sort of random thing

812

00:37:21,460 --> 00:37:20,030

can happen Molly b-24 twice every 25

813

00:37:24,880 --> 00:37:21,470

years you see the edge on that you can't

814

00:37:28,930 --> 00:37:24,890

see them at all they're so thin so I

815

00:37:30,880 --> 00:37:28,940

guess it's on to our next gas planet

816

00:37:37,540 --> 00:37:30,890

which will be some distance away from

817

00:37:39,640 --> 00:37:37,550

here which would be Uranus Uranus or new

818

00:37:42,370 --> 00:37:39,650

litter so it's about the size of a golf

819

00:37:44,770 --> 00:37:42,380

ball yeah and that was quite a distance

820

00:37:47,320 --> 00:37:44,780

from Saturn wasn't sober kilowatt up

821

00:37:50,560 --> 00:37:47,330

here that's remarkable yeah there it is

822

00:37:52,210 --> 00:37:50,570

there it is not much just so it's all

823

00:37:54,670 --> 00:37:52,220

gaseous you cannot see features on it

824

00:37:57,790 --> 00:37:54,680

yeah I'm not much to see the telescope

825

00:37:59,710 --> 00:37:57,800

just a pale green sphere but it's there

826

00:38:01,790 --> 00:37:59,720

admittedly and it's quite it was quite a

827

00:38:05,870 --> 00:38:01,800

distance from satin um

828

00:38:08,720 --> 00:38:05,880

one of amazed one we've got other moon

829

00:38:10,460 --> 00:38:08,730

but one moon is one wound very big but

830

00:38:13,160 --> 00:38:10,470

that's that's a hell of a distance now

831

00:38:16,280 --> 00:38:13,170

that's amazing yeah well we still got a

832

00:38:18,470 --> 00:38:16,290

ways to go now over there that they are

833

00:38:21,080 --> 00:38:18,480

white that's the note the Norwegian

834

00:38:23,760 --> 00:38:21,090

ship that vote down is half alien

835

00:38:29,670 --> 00:38:23,770

Zealand that it comes out

836

00:38:34,920 --> 00:38:29,680

touch home back to Melbourne so we've

837

00:38:35,910 --> 00:38:34,930

arrived at Neptune the British in the

838

00:38:38,240 --> 00:38:35,920

journal

839

00:38:41,460 --> 00:38:38,250

hopefully the where nip tune should be

840

00:38:43,890 --> 00:38:41,470

and the British went along to AV the

841

00:38:47,089 --> 00:38:43,900

astronomer royal is it can we look at

842

00:38:49,770 --> 00:38:47,099

this place is it wait a time bar bug off

843

00:38:52,260 --> 00:38:49,780

the Germans look to a French telescope

844

00:38:54,270 --> 00:38:52,270

in Paris and they discovered it loveria

845

00:38:56,099 --> 00:38:54,280

so we were at by one night you know

846

00:38:57,720 --> 00:38:56,109

because of the elegance of the

847

00:39:01,349 --> 00:38:57,730

astronomer royal and that was quite a

848

00:39:04,049 --> 00:39:01,359

ride just from uranus to come to tune FK

849

00:39:06,420 --> 00:39:04,059

yeah yeah yeah oh you ain't seen Pluto

850

00:39:08,370 --> 00:39:06,430

yet and it's about on this scale

851

00:39:10,319 --> 00:39:08,380

Neptune's roughly the size of a golf

852

00:39:12,390 --> 00:39:10,329

ball or a little bit just a bit bigger

853

00:39:14,970 --> 00:39:12,400

than a golf ball and of course even

854

00:39:16,650 --> 00:39:14,980

Jupiter and the other plane is a so far

855

00:39:18,720 --> 00:39:16,660

away now we can't possibly hope to see

856

00:39:20,280 --> 00:39:18,730

even if we we have a clear line of sight

857

00:39:22,740 --> 00:39:20,290

we could barely see anything back there

858

00:39:25,620 --> 00:39:22,750

with a large w listen you can see I've

859

00:39:28,319 --> 00:39:25,630

had you pulling in behind that and then

860

00:39:30,329 --> 00:39:28,329

season it to you yeah yeah the 13 moons

861

00:39:32,880 --> 00:39:30,339

or there are surface their stories on

862

00:39:34,829 --> 00:39:32,890

the surface it's made of gas it

863

00:39:36,960 --> 00:39:34,839

impresses upon me doing this how close

864

00:39:38,549 --> 00:39:36,970

the inner planets are really do the Sun

865

00:39:41,579 --> 00:39:38,559

they're all gathered really close to the

866

00:39:44,490 --> 00:39:41,589

Sun then suddenly nothing if you try and

867

00:39:46,140 --> 00:39:44,500

draw a long time yeah get on the page so

868

00:39:49,740 --> 00:39:46,150

the Dino class would just be one dot

869

00:39:51,270 --> 00:39:49,750

with the Sun and the rest on the page so

870

00:39:53,579 --> 00:39:51,280

it's really hard to depict the solar

871

00:39:55,260 --> 00:39:53,589

system properly yeah so it's a big solar

872

00:39:56,940 --> 00:39:55,270

system with nothing in it and every now

873

00:39:59,789 --> 00:39:56,950

and then you bump into something like a

874

00:40:01,470 --> 00:39:59,799

planet like they're very unlikely

875

00:40:03,549 --> 00:40:01,480

because the orbit is you know this far

876

00:40:06,039 --> 00:40:03,559

out for the thumbs yeah

877

00:40:08,589 --> 00:40:06,049

the audis lot on the scale about 20

878

00:40:11,859 --> 00:40:08,599

kilometers long around the year so this

879

00:40:14,529 --> 00:40:11,869

week yeah that's unlike you hit it at

880

00:40:16,299 --> 00:40:14,539

random so you think we'll have any luck

881

00:40:18,189 --> 00:40:16,309

finding Bluto this right now where it is

882

00:40:24,069 --> 00:40:18,199

you know where it is okay otherwise you

883

00:40:25,839 --> 00:40:24,079

wouldn't find it with that we've reached

884

00:40:30,670 --> 00:40:25,849

Bhutto that the side of the moment and

885

00:40:32,979 --> 00:40:30,680

it's the size of a it's tiny it's

886

00:40:35,109 --> 00:40:32,989

absolutely yes it's the sort of the

887

00:40:38,459 --> 00:40:35,119

large bit of one of those old pins isn't

888

00:40:41,140 --> 00:40:38,469

it yeah pinhead yes indeed a hatpin

889

00:40:43,390 --> 00:40:41,150

modeling pinheaded you're smaller than a

890

00:40:45,999 --> 00:40:43,400

hatpin now does it say here how far

891

00:40:49,029 --> 00:40:46,009

we've come from the Sun six point nine

892

00:40:51,969 --> 00:40:49,039

kilometres on then we have a look down

893

00:40:54,670 --> 00:40:51,979

here distance to the certify okay so

894

00:40:56,890 --> 00:40:54,680

five point nine kilometres away is that

895

00:40:59,079 --> 00:40:56,900

large sphere we saw at the beginning of

896

00:41:00,489 --> 00:40:59,089

this trip imagine fella launched a

897

00:41:02,890 --> 00:41:00,499

rocket from the farm of the season

898

00:41:06,370 --> 00:41:02,900

moving side way that's extraordinary

899

00:41:08,079 --> 00:41:06,380

that's extraordinary oh that's a

900

00:41:11,349 --> 00:41:08,089

fantastic thing Steve how long is this

901
00:41:14,410 --> 00:41:11,359
solar system been here 20 years 20 years

902
00:41:16,630 --> 00:41:14,420
yes yeah 1990s so I don't know is it

903
00:41:18,459 --> 00:41:16,640
well known didn't it was at the time has

904
00:41:24,219 --> 00:41:18,469
been forgotten about did you all know

905
00:41:25,569 --> 00:41:24,229
about this or no yeah this is call me he

906
00:41:31,029 --> 00:41:25,579
appears how I never knew that was there

907
00:41:33,039 --> 00:41:31,039
yeah yeah well I think it's just it's

908
00:41:36,309 --> 00:41:33,049
just fantastic so if you come to

909
00:41:38,919 --> 00:41:36,319
Melbourne or you live in Melbourne come

910
00:41:41,259 --> 00:41:38,929
down and have a look at this because

911
00:41:43,419 --> 00:41:41,269
it's really gives you a good well some

912
00:41:44,979 --> 00:41:43,429
understanding at least as far as we can

913
00:41:47,829 --> 00:41:44,989

possibly comprehend the scale of things

914

00:41:49,929 --> 00:41:47,839

of the solar system and there will be a

915

00:41:58,320 --> 00:41:49,939

link on this week's show notes thank you

916

00:42:21,940 --> 00:42:17,849

[Music]

917

00:42:25,000 --> 00:42:21,950

dr. Harriet hall md no into thousands as

918

00:42:28,120 --> 00:42:25,010

the skeptic a retired family physician

919

00:42:30,160 --> 00:42:28,130

and former Air Force flight surgeon she

920

00:42:31,890 --> 00:42:30,170

writes about medicine so called

921

00:42:35,760 --> 00:42:31,900

complementary and alternative medicine

922

00:42:38,830 --> 00:42:35,770

science quackery and critical thinking

923

00:42:41,290 --> 00:42:38,840

Harriet now has a free course a series

924

00:42:44,440 --> 00:42:41,300

of ten video lectures on science based

925

00:42:46,480 --> 00:42:44,450

medicine and alternative medicine the

926

00:42:48,580 --> 00:42:46,490

videos and an accompanying course guide

927

00:42:53,440 --> 00:42:48,590

can be found by following the link at

928

00:42:57,990 --> 00:42:53,450

skeptic info or by visiting web Randy's

929

00:43:01,800 --> 00:42:58,000

org slash educational dash modules dot

930

00:43:04,030 --> 00:43:01,810

HTML topics covered in the series are

931

00:43:07,140 --> 00:43:04,040

science-based medicine vs.

932

00:43:10,560 --> 00:43:07,150

evidence-based medicine what is cam

933

00:43:13,750 --> 00:43:10,570

chiropractic acupuncture homeopathy

934

00:43:15,880 --> 00:43:13,760

naturopathy and herbal medicine energy

935

00:43:19,060 --> 00:43:15,890

medicine miscellaneous alternatives

936

00:43:22,320 --> 00:43:19,070

pitfalls in research and science-based

937

00:43:25,120 --> 00:43:22,330

medicine in the media and politics

938

00:43:27,670 --> 00:43:25,130

Harriet covers each topic in a matter of

939

00:43:31,670 --> 00:43:27,680

fact no-nonsense way that sure to

940

00:43:51,500 --> 00:43:31,680

educate and entertain skeptic dot info

941

00:43:53,720 --> 00:43:51,510

[Music]

942

00:43:55,960 --> 00:43:53,730

from the website of Australian skeptics

943

00:43:58,760 --> 00:43:55,970

Australian skeptics calm today you

944

00:44:02,420 --> 00:43:58,770

chiropractor found guilty of making

945

00:44:04,280 --> 00:44:02,430

false claims of curing cancer by Tim

946

00:44:08,200 --> 00:44:04,290

mendham published on the fifteenth of

947

00:44:11,660 --> 00:44:08,210

februari 2017 a new south wales

948

00:44:14,180 --> 00:44:11,670

chiropractor has been convicted of false

949

00:44:17,450 --> 00:44:14,190

advertising after he claimed to be able

950

00:44:20,330 --> 00:44:17,460

to prevent treat and cure cancer in his

951
00:44:22,720 --> 00:44:20,340
advertising handsome borrow who was

952
00:44:25,910 --> 00:44:22,730
sentenced today febr the 15th at

953
00:44:28,300 --> 00:44:25,920
Downing Centre local court in Sydney now

954
00:44:30,880 --> 00:44:28,310
after he pleaded guilty to 13 charges

955
00:44:35,900 --> 00:44:30,890
filed by the Australian health

956
00:44:39,020 --> 00:44:35,910
practitioner regulation agency ahpra in

957
00:44:42,260 --> 00:44:39,030
August 2060 dr. Lim borough was

958
00:44:44,720 --> 00:44:42,270
convicted and fined twenty-nine thousand

959
00:44:48,320 --> 00:44:44,730
five hundred dollars by the court and

960
00:44:51,320 --> 00:44:48,330
was also ordered to pay the ahp Ras

961
00:44:53,690 --> 00:44:51,330
legal costs twenty seven thousand five

962
00:44:56,330 --> 00:44:53,700
hundred dollars of that fine was for

963
00:44:58,790 --> 00:44:56,340

advertising a health service in a false

964

00:45:00,580 --> 00:44:58,800

or misleading way the remaining two

965

00:45:03,320 --> 00:45:00,590

thousand dollars was for using

966

00:45:06,200 --> 00:45:03,330

testimonials in his advertising which is

967

00:45:09,440 --> 00:45:06,210

not permitted when advertising regulated

968

00:45:12,410 --> 00:45:09,450

health services limber o was convicted

969

00:45:14,900 --> 00:45:12,420

of unlawfully advertising a regulated

970

00:45:17,930 --> 00:45:14,910

health service and using testimonials

971

00:45:20,420 --> 00:45:17,940

under the national law chiropractic

972

00:45:22,550 --> 00:45:20,430

board of Australia chair Wayne Minter

973

00:45:25,610 --> 00:45:22,560

said the board welcomed the decision

974

00:45:28,790 --> 00:45:25,620

quote today's conviction is a win for

975

00:45:30,800 --> 00:45:28,800

public protection and a warning to

976

00:45:33,440 --> 00:45:30,810

anyone advertising health services in

977

00:45:36,560 --> 00:45:33,450

the way that contravenes the national

978

00:45:39,110 --> 00:45:36,570

law then quoted dr. Minter said he added

979

00:45:41,660 --> 00:45:39,120

quote most chiropractors are doing the

980

00:45:44,090 --> 00:45:41,670

right thing and quote however this view

981

00:45:46,100 --> 00:45:44,100

has been strongly refuted by a number of

982

00:45:48,800 --> 00:45:46,110

campaigners against chiropractors

983

00:45:51,800 --> 00:45:48,810

misleading advertising ken MacLeod said

984

00:45:54,800 --> 00:45:51,810

that he and Peter teeny had put in

985

00:45:57,830 --> 00:45:54,810

complaints against more than 700

986

00:45:59,720 --> 00:45:57,840

chiropractors professor Ken Harvey said

987

00:46:01,940 --> 00:45:59,730

that he and mel Vickers had put in

988

00:46:04,400 --> 00:46:01,950

complaints against about 800

989

00:46:05,180 --> 00:46:04,410

chiropractors and the Friends of Science

990

00:46:08,120 --> 00:46:05,190

in medicine

991

00:46:13,490 --> 00:46:08,130

have reportedly submitted complaints

992

00:46:15,680 --> 00:46:13,500

against 1,200 chiropractors for many of

993

00:46:19,430 --> 00:46:15,690

these cases McLeod says there has been

994

00:46:23,359 --> 00:46:19,440

little or no response from the ahpra or

995

00:46:25,700 --> 00:46:23,369

the CBA all of these campaigners have

996

00:46:27,890 --> 00:46:25,710

been recipients of the skeptic of the

997

00:46:30,800 --> 00:46:27,900

Year award over the past few years

998

00:46:33,109 --> 00:46:30,810

McLeod added that his studies revealed

999

00:46:35,510 --> 00:46:33,119

that about two-thirds of chiropractors

1000

00:46:38,540 --> 00:46:35,520

have also expressed or promoted

1001
00:46:40,220 --> 00:46:38,550
anti-vaccination views he says that in

1002
00:46:42,589 --> 00:46:40,230
discussions with the UK campaigner

1003
00:46:45,559 --> 00:46:42,599
professor Ed's art Ernst there is a

1004
00:46:47,270 --> 00:46:45,569
similar situation in the UK it is known

1005
00:46:50,420 --> 00:46:47,280
that about eight other chiropractors are

1006
00:46:53,599 --> 00:46:50,430
currently in the pipeline to be brought

1007
00:46:55,069 --> 00:46:53,609
before the courts minta said quote the

1008
00:46:57,410 --> 00:46:55,079
board has been upfront with the

1009
00:47:00,380 --> 00:46:57,420
profession that if their advertising is

1010
00:47:03,410 --> 00:47:00,390
not compliant with the law they will be

1011
00:47:06,319 --> 00:47:03,420
held to account end quote the hundreds

1012
00:47:11,270 --> 00:47:06,329
of existing complaints will put that aim

1013
00:47:14,329 --> 00:47:11,280

under pressure ahpra CEO Martin Fletcher

1014

00:47:16,730 --> 00:47:14,339

said the outcome sent an important

1015

00:47:19,280 --> 00:47:16,740

message to anyone who advertises a

1016

00:47:21,559 --> 00:47:19,290

regulated health service that the

1017

00:47:24,530 --> 00:47:21,569

regulator will take action if they break

1018

00:47:28,040 --> 00:47:24,540

the law quote today's conviction is a

1019

00:47:29,780 --> 00:47:28,050

landmark ruling our purpose working

1020

00:47:32,390 --> 00:47:29,790

closely with the chiropractic board of

1021

00:47:35,180 --> 00:47:32,400

Australia is to protect the public this

1022

00:47:38,390 --> 00:47:35,190

shows that we will take action and that

1023

00:47:40,970 --> 00:47:38,400

people breaking the law will be held to

1024

00:47:42,829 --> 00:47:40,980

account making false claims to treat

1025

00:47:46,210 --> 00:47:42,839

serious illnesses through unproven

1026
00:47:49,339 --> 00:47:46,220
methods is both unethical and illegal

1027
00:47:51,620 --> 00:47:49,349
with her ruling magistrate Vinnie said

1028
00:47:53,690 --> 00:47:51,630
that while the practitioner personally

1029
00:47:56,180 --> 00:47:53,700
may not have loaded the advertising on

1030
00:47:59,120 --> 00:47:56,190
to the website in question he could not

1031
00:48:01,550 --> 00:47:59,130
deny responsibility this is an important

1032
00:48:04,520 --> 00:48:01,560
lesson for others who are advertising

1033
00:48:06,859 --> 00:48:04,530
regulated health services quote today's

1034
00:48:10,609 --> 00:48:06,869
outcome is a reminder to us all as

1035
00:48:12,530 --> 00:48:10,619
health consumers and patients that if an

1036
00:48:15,980 --> 00:48:12,540
advertisement seems too good to be true

1037
00:48:18,020 --> 00:48:15,990
it probably is make sure you ask your

1038
00:48:18,769 --> 00:48:18,030

health practitioner what evidence they

1039

00:48:20,919 --> 00:48:18,779

have to

1040

00:48:24,079 --> 00:48:20,929

these claims and if you're still unsure

1041

00:48:27,649 --> 00:48:24,089

seek a second opinion in quote Fletcher

1042

00:48:29,479 --> 00:48:27,659

said ahpra and 14 national boards that

1043

00:48:32,329 --> 00:48:29,489

regulate Australia's registered health

1044

00:48:35,209 --> 00:48:32,339

workforce have published guidelines on

1045

00:48:37,669 --> 00:48:35,219

advertising regulated health services to

1046

00:48:39,259 --> 00:48:37,679

help health practitioners and service

1047

00:48:41,689 --> 00:48:39,269

providers know their obligations under

1048

00:48:44,479 --> 00:48:41,699

the national law along with additional

1049

00:48:47,539 --> 00:48:44,489

resources to help understand the do's

1050

00:48:49,249 --> 00:48:47,549

and don'ts of advertising anyone with

1051

00:48:51,679 --> 00:48:49,259

concerns about the advertising of

1052

00:49:01,039 --> 00:48:51,689

regulated health services should contact

1053

00:49:02,419 --> 00:49:01,049

the ahpra on 1300 419 459 and that story

1054

00:49:04,640 --> 00:49:02,429

comes to us from the website of

1055

00:49:07,699 --> 00:49:04,650

Australian skeptics skeptics calm today

1056

00:49:10,939 --> 00:49:07,709

you compiled by Tim mendham and now

1057

00:49:13,489 --> 00:49:10,949

courtesy of the nine network news here

1058

00:49:15,890 --> 00:49:13,499

is a brief report on the chiropractor in

1059

00:49:17,739 --> 00:49:15,900

question have you got anything you'd

1060

00:49:21,289 --> 00:49:17,749

like to say disgraced in a courtroom

1061

00:49:23,659 --> 00:49:21,299

Islamic chiropractor dr. Han slim Bora

1062

00:49:25,729 --> 00:49:23,669

made a run for it but there was no

1063

00:49:28,549 --> 00:49:25,739

dodging the truth that he falsely

1064

00:49:30,529 --> 00:49:28,559

claimed he could cure cancer mr. Barrett

1065

00:49:33,079 --> 00:49:30,539

do you think you're going to continue as

1066

00:49:35,839 --> 00:49:33,089

a chiropractor it's a huge ball from

1067

00:49:38,630 --> 00:49:35,849

grace for a man with many hats he's on

1068

00:49:40,339 --> 00:49:38,640

YouTube telling us how to make money I'm

1069

00:49:42,620 --> 00:49:40,349

going to go where teach you how to join

1070

00:49:45,349 --> 00:49:42,630

about a hundred thousand dollars of

1071

00:49:47,449 --> 00:49:45,359

passive income a year and on the

1072

00:49:49,999 --> 00:49:47,459

internet is being rated as one of the

1073

00:49:52,269 --> 00:49:50,009

three best chiropractors in Sydney and

1074

00:49:55,699 --> 00:49:52,279

on web pages advertising his services

1075

00:49:58,459 --> 00:49:55,709

it's claimed having a regular visit to a

1076

00:50:01,009 --> 00:49:58,469

chiropractor people can rest assured

1077

00:50:04,039 --> 00:50:01,019

they're prevented from having cancer and

1078

00:50:06,949 --> 00:50:04,049

there's more and natural cancer cure is

1079

00:50:10,339 --> 00:50:06,959

chiropractic treatment the only problem

1080

00:50:12,620 --> 00:50:10,349

is it's not true dr. Limbaugh promoted

1081

00:50:14,239 --> 00:50:12,630

his treatment as an alternative to other

1082

00:50:17,569 --> 00:50:14,249

life-saving measures such as

1083

00:50:19,489 --> 00:50:17,579

chemotherapy and radiation the court was

1084

00:50:21,199 --> 00:50:19,499

told that any of his patients who

1085

00:50:23,719 --> 00:50:21,209

ignored those tried and tested

1086

00:50:26,299 --> 00:50:23,729

treatments could have made a fatal

1087

00:50:28,930 --> 00:50:26,309

mistake in a landmark case but

1088

00:50:31,180 --> 00:50:28,940

regulators pursued him borrow

1089

00:50:33,670 --> 00:50:31,190

what a magistrate found were outrageous

1090

00:50:36,700 --> 00:50:33,680

claims targeting the most vulnerable

1091

00:50:38,980 --> 00:50:36,710

with a cure or a fix these meant to be

1092

00:50:40,359 --> 00:50:38,990

highly trained health professionals but

1093

00:50:41,740 --> 00:50:40,369

this one in particular has been

1094

00:50:44,319 --> 00:50:41,750

misleading the public and I suspect

1095

00:50:46,450 --> 00:50:44,329

there's more libero who is fine nearly

1096

00:50:49,059 --> 00:50:46,460

thirty thousand dollars and it will be

1097

00:50:52,030 --> 00:50:49,069

up to the chiropractic board to decide

1098

00:50:59,859 --> 00:50:52,040

if he stays in the profession Damien

1099

00:51:06,920 --> 00:51:03,220

this is indeed a landmark judgment

1100

00:51:09,049 --> 00:51:06,930

landmark ruling I can imagine it will

1101
00:51:11,599 --> 00:51:09,059
put many chiropractors on notice but not

1102
00:51:13,579 --> 00:51:11,609
only chiropractors all the people out

1103
00:51:16,720 --> 00:51:13,589
there all the health care providers

1104
00:51:20,390 --> 00:51:16,730
so-called health care providers who

1105
00:51:23,299 --> 00:51:20,400
advertise the extraordinary things they

1106
00:51:28,360 --> 00:51:23,309
can do the claims that they make I think

1107
00:51:28,370 --> 00:51:34,530
[Music]

1108
00:51:48,709 --> 00:51:35,270
you

1109
00:51:53,249 --> 00:51:51,179
I'm here with an old friend of mine the

1110
00:51:55,559 --> 00:51:53,259
lone deranged ER herself lindley hello

1111
00:51:57,769 --> 00:51:55,569
hello how are you know we've known each

1112
00:52:00,239 --> 00:51:57,779
other for many years now you're I

1113
00:52:01,920 --> 00:52:00,249

remember the first time you came around

1114

00:52:04,079 --> 00:52:01,930

to visit dr. Steve Roberts and we were

1115

00:52:06,479 --> 00:52:04,089

watching UFO documents do you remember

1116

00:52:08,939 --> 00:52:06,489

that was good and I remember Stevie put

1117

00:52:10,499 --> 00:52:08,949

two like pet pita bread things on the

1118

00:52:13,769 --> 00:52:10,509

side of his head to make him look so

1119

00:52:15,390 --> 00:52:13,779

look like Mickey Mouse that's Steve for

1120

00:52:19,049 --> 00:52:15,400

you now folks are having a quick chat

1121

00:52:21,209 --> 00:52:19,059

with them lindley because you have a new

1122

00:52:22,739 --> 00:52:21,219

podcast and of course as a friend of

1123

00:52:24,539 --> 00:52:22,749

mine and somebody who likes podcast I

1124

00:52:27,150 --> 00:52:24,549

like to promote podcasts what's your

1125

00:52:28,949 --> 00:52:27,160

podcast all about it's just me spinnin

1126
00:52:30,779 --> 00:52:28,959
records I've got so many records I

1127
00:52:32,819 --> 00:52:30,789
thought and I don't have anyone to share

1128
00:52:34,949 --> 00:52:32,829
them with besides my cat I thought why

1129
00:52:37,499 --> 00:52:34,959
not just put them out on the air and

1130
00:52:39,949 --> 00:52:37,509
yeah and learn some djing skills at the

1131
00:52:43,319 --> 00:52:39,959
same time so I just set it up no age no

1132
00:52:46,259 --> 00:52:43,329
no education no nothing youtube video

1133
00:52:49,099 --> 00:52:46,269
clips and bang three episodes fourth

1134
00:52:51,509 --> 00:52:49,109
episode is recorded and it will come out

1135
00:52:53,789 --> 00:52:51,519
well it'll be out when you listen to

1136
00:52:56,819 --> 00:52:53,799
this excellent so basically you thought

1137
00:52:59,489 --> 00:52:56,829
I'll do this I can do I can do this you

1138
00:53:00,989 --> 00:52:59,499

use audacity I believe yeah and you do

1139

00:53:03,539 --> 00:53:00,999

the mixing you put the podcast together

1140

00:53:06,419 --> 00:53:03,549

and all the rest of it so folks you know

1141

00:53:07,620 --> 00:53:06,429

if you want to do a podcast there's

1142

00:53:09,689 --> 00:53:07,630

nothing stopping you is there no

1143

00:53:11,759 --> 00:53:09,699

definitely not is this bang straight

1144

00:53:15,329 --> 00:53:11,769

easy I thought it would be more

1145

00:53:18,179 --> 00:53:15,339

difficult than what it was but yeah

1146

00:53:20,699 --> 00:53:18,189

pretty good good stuff and it's called

1147

00:53:22,289 --> 00:53:20,709

running with scissors what why running

1148

00:53:24,329 --> 00:53:22,299

with scissors oh there was a discussion

1149

00:53:26,759 --> 00:53:24,339

at work to posties we're talking about

1150

00:53:29,630 --> 00:53:26,769

if they'd ever seen anyone in hospital

1151
00:53:32,249 --> 00:53:29,640
with injuries from running with scissors

1152
00:53:33,630 --> 00:53:32,259
and at that time I was sort of coming

1153
00:53:35,029 --> 00:53:33,640
and airing about the show and I heard

1154
00:53:38,669 --> 00:53:35,039
the name and I said perfect that's

1155
00:53:42,120 --> 00:53:38,679
you've just named my show and vow

1156
00:53:44,549 --> 00:53:42,130
international listeners postie you

1157
00:53:45,779 --> 00:53:44,559
deliver the post yeah yeah and as we sit

1158
00:53:47,489 --> 00:53:45,789
here now having a nice time so you've

1159
00:53:49,829 --> 00:53:47,499
got right now crossed your chest you've

1160
00:53:50,950 --> 00:53:49,839
got straight Australia Post and blaze in

1161
00:53:53,080 --> 00:53:50,960
there like that

1162
00:53:55,000 --> 00:53:53,090
and what is your taste in music what if

1163
00:53:56,410 --> 00:53:55,010

people listen Google running with

1164

00:53:58,120 --> 00:53:56,420

scissors podcast but what's the music

1165

00:54:04,210 --> 00:53:58,130

might they hear you'll be getting a lot

1166

00:54:07,390 --> 00:54:04,220

of 80s punk new wave post-punk all the

1167

00:54:09,880 --> 00:54:07,400

all the no waves new wave no way there's

1168

00:54:13,000 --> 00:54:09,890

lots of waves there's so many waves in

1169

00:54:14,920 --> 00:54:13,010

music industrial all it all the noise

1170

00:54:17,350 --> 00:54:14,930

anyway and I'll be playing a lot of

1171

00:54:18,790 --> 00:54:17,360

local Australian bands that I like so I

1172

00:54:21,490 --> 00:54:18,800

just want to keep promoting Australian

1173

00:54:23,950 --> 00:54:21,500

music as much as I can this it doesn't

1174

00:54:26,140 --> 00:54:23,960

get much airtime yeah sir yeah

1175

00:54:28,390 --> 00:54:26,150

definitely got a fun congratulations

1176

00:54:29,830 --> 00:54:28,400

folks running with scissors that's the

1177

00:54:32,650 --> 00:54:29,840

name of the podcast check it out and

1178

00:54:34,840 --> 00:54:32,660

you'll find a link on this week's show

1179

00:54:37,420 --> 00:54:34,850

notes and good luck you'll find it on

1180

00:54:43,270 --> 00:54:37,430

mixcloud and just type in running with

1181

00:54:53,920 --> 00:54:43,280

scissors mixcloud com / loan underscored

1182

00:55:12,770 --> 00:55:08,529

[Music]

1183

00:55:16,670 --> 00:55:12,780

and now a special note for fans of

1184

00:55:20,089 --> 00:55:16,680

Maynard at Maynard com got a you if you

1185

00:55:23,420 --> 00:55:20,099

head over there now me naw Kham today

1186

00:55:26,150 --> 00:55:23,430

you you can download the 2017 mean and

1187

00:55:31,220 --> 00:55:26,160

calendar print it out and whack it on

1188

00:55:35,870 --> 00:55:31,230

the wall spend 2017 with me nerd that's

1189

00:55:39,330 --> 00:55:35,880

me not calm da to you for your free mean

1190

00:55:59,860 --> 00:55:39,340

hun 2017 calendar

1191

00:56:03,470 --> 00:56:02,180

thank you for listening to the skeptic

1192

00:56:05,690 --> 00:56:03,480

zone now next week I think we have

1193

00:56:09,770 --> 00:56:05,700

another report about them situation on

1194

00:56:11,720 --> 00:56:09,780

the movie vax and the news that robert

1195

00:56:14,300 --> 00:56:11,730

de niro the actor robert de niro a fine

1196

00:56:17,900 --> 00:56:14,310

actor a wonderful actor i do enjoy his

1197

00:56:21,200 --> 00:56:17,910

movies is now becoming involved in some

1198

00:56:23,930 --> 00:56:21,210

shape or form with the publicity or the

1199

00:56:26,180 --> 00:56:23,940

concerns around this movie we'll keep

1200

00:56:28,970 --> 00:56:26,190

you up to date on that story next week I

1201
00:56:30,920 --> 00:56:28,980
know my friend Fiona O'Leary and Ireland

1202
00:56:33,230 --> 00:56:30,930
is very concerned about recent

1203
00:56:34,970 --> 00:56:33,240
developments thank you to those people

1204
00:56:37,430 --> 00:56:34,980
who continue after all these years to

1205
00:56:40,670 --> 00:56:37,440
support the skeptic zone at skeptics on

1206
00:56:42,320 --> 00:56:40,680
TV with your little micro payments and

1207
00:56:44,660 --> 00:56:42,330
some people even chip in a bit more and

1208
00:56:47,810 --> 00:56:44,670
it all adds up it's wonderful it's like

1209
00:56:50,420 --> 00:56:47,820
lots of little drops going into a into a

1210
00:56:53,030 --> 00:56:50,430
glass of water it's great thank you so

1211
00:56:55,580 --> 00:56:53,040
much for supporting the skeptic zone in

1212
00:56:58,340 --> 00:56:55,590
that way thank you to the people who

1213
00:56:59,750 --> 00:56:58,350

write to me saying how they how much

1214

00:57:02,510 --> 00:56:59,760

they enjoy the show and what they're

1215

00:57:04,880 --> 00:57:02,520

doing some people are mowing the lawn

1216

00:57:06,470 --> 00:57:04,890

are going for runs or riding bikes as we

1217

00:57:08,210 --> 00:57:06,480

were mentioning earlier before riding

1218

00:57:10,520 --> 00:57:08,220

bikes listening to the skeptic zone on

1219

00:57:12,770 --> 00:57:10,530

their commute to work or whatever they

1220

00:57:14,360 --> 00:57:12,780

happen to be doing and I know some

1221

00:57:17,390 --> 00:57:14,370

people like to listen to the skeptic

1222

00:57:19,070 --> 00:57:17,400

sound on long drives in the car and I

1223

00:57:21,020 --> 00:57:19,080

must give a shout out to listen to Jake

1224

00:57:24,320 --> 00:57:21,030

Jake to lure low who also wrote to me

1225

00:57:26,630 --> 00:57:24,330

last week saying that the collective

1226

00:57:28,700 --> 00:57:26,640

noun for a group of quacks should be an

1227

00:57:30,650 --> 00:57:28,710

aerco their neck o of quacks I think

1228

00:57:32,660 --> 00:57:30,660

actually Jake when I look through the

1229

00:57:34,550 --> 00:57:32,670

list of Correspondence I think he got

1230

00:57:37,670 --> 00:57:34,560

there first to let me know that that's

1231

00:57:39,920 --> 00:57:37,680

what we should call a a group of quacks

1232

00:57:41,600 --> 00:57:39,930

and echo I do like that so thanks Jake

1233

00:57:43,820 --> 00:57:41,610

thank you very much and thanks for

1234

00:57:46,010 --> 00:57:43,830

listening to but for this week from

1235

00:57:47,960 --> 00:57:46,020

beautiful melbourne with lots of weird

1236

00:57:49,940 --> 00:57:47,970

noises going around here in this house

1237

00:57:51,920 --> 00:57:49,950

there is water in the pipes running

1238

00:57:53,930 --> 00:57:51,930

through and workmen next to or

1239

00:57:55,820 --> 00:57:53,940

renovating a house the planes flying

1240

00:57:59,180 --> 00:57:55,830

overhead as i think there's a cat here

1241

00:58:00,650 --> 00:57:59,190

to walks by occasionally oh it's all

1242

00:58:03,560 --> 00:58:00,660

happening here in melbourne until next

1243

00:58:07,660 --> 00:58:03,570

week this is Richard Saunders signing

1244

00:58:13,820 --> 00:58:10,070

you've been listening to the skeptics

1245

00:58:16,790 --> 00:58:13,830

own podcast visit our website at WCA

1246

00:58:20,690 --> 00:58:16,800

pegs on TV for contacts and archive of

1247

00:58:23,330 --> 00:58:20,700

all episodes since 2008 and our online

1248

00:58:26,050 --> 00:58:23,340

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1249

00:58:29,060 --> 00:58:26,060

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1250

00:58:32,120 --> 00:58:29,070

liking us on facebook and leaving a

1251

00:58:35,000 --> 00:58:32,130

review on iTunes you can also show your

1252

00:58:38,450 --> 00:58:35,010

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1253

00:58:40,820 --> 00:58:38,460

little as 99 cents a week the skeptic

1254

00:58:42,500 --> 00:58:40,830

zone is an independent production the

1255

00:58:44,600 --> 00:58:42,510

views and opinions expressed on the

1256

00:58:47,290 --> 00:58:44,610

skeptic zone and not necessarily those