

1
00:00:05,929 --> 00:00:12,379
welcome to the skeptic zone the podcast

2
00:00:09,089 --> 00:00:22,369
from Australia for science and reason

3
00:00:12,380 --> 00:00:25,200
[Music]

4
00:00:22,370 --> 00:00:29,010
hello and welcome to the skeptic zone

5
00:00:25,199 --> 00:00:31,710
podcast episode number 435 for the

6
00:00:29,010 --> 00:00:33,929
seventeenth of february 2017 Richard

7
00:00:31,710 --> 00:00:36,299
Saunders here with you from Melbourne

8
00:00:33,929 --> 00:00:37,710
Australia beautiful Melbourne I'm here

9
00:00:36,299 --> 00:00:40,589
for a few days to visit my old friend

10
00:00:37,710 --> 00:00:44,489
dr. Steve Roberts one of the UF o--

11
00:00:40,590 --> 00:00:46,800
experts in the Australian skeptics this

12
00:00:44,488 --> 00:00:49,079
time however Steve and I aren't going to

13
00:00:46,799 --> 00:00:52,259
be discussing UFOs we're going to be

14
00:00:49,079 --> 00:00:54,929
taking a bicycle tour of the solar

15
00:00:52,259 --> 00:00:56,879
system that's coming up a little bit

16
00:00:54,929 --> 00:01:00,570
later on in the show here in Melbourne

17
00:00:56,880 --> 00:01:03,989
at San kilda there's actually a scale

18
00:01:00,570 --> 00:01:05,909
model of our solar system where you

19
00:01:03,988 --> 00:01:09,719
started the Sun and work your way all

20
00:01:05,909 --> 00:01:12,359
the way to Pluto as it happens which is

21
00:01:09,719 --> 00:01:14,399
a distance on this scale of five point

22
00:01:12,359 --> 00:01:17,759
nine kilometers now it's a great thing

23
00:01:14,399 --> 00:01:19,649
to do on foot or as we do it on bicycle

24
00:01:17,759 --> 00:01:22,349
so join us a bit later on in the show

25
00:01:19,649 --> 00:01:24,810
when Steve Roberts and ions and friends

26
00:01:22,349 --> 00:01:27,178
do a bicycle tour of our solar system

27
00:01:24,810 --> 00:01:29,280
but to kick off the show we're going to

28
00:01:27,179 --> 00:01:31,560
be reporting Steve Robert tonight on our

29

00:01:29,280 --> 00:01:34,939
story that's just come to light in the

30
00:01:31,560 --> 00:01:37,618
last couple of days Healing Touch at a

31
00:01:34,939 --> 00:01:39,959
Queensland University or some people

32
00:01:37,618 --> 00:01:43,019
know this as therapeutic touch this is

33
00:01:39,959 --> 00:01:45,810
the ridiculous and when you see it it

34
00:01:43,019 --> 00:01:51,149
just looks as ridiculous as it is a

35
00:01:45,810 --> 00:01:53,459
method of stroking near a patient along

36
00:01:51,149 --> 00:01:55,939
their legs and arms and body out through

37
00:01:53,459 --> 00:02:01,799
their shoes in this case a boy

38
00:01:55,939 --> 00:02:03,299
pretending to scoop away mythical energy

39
00:02:01,799 --> 00:02:04,530
well they're not pretending that people

40
00:02:03,299 --> 00:02:06,719
these people really think they are

41
00:02:04,530 --> 00:02:08,159
scooping away mythical energy don't know

42
00:02:06,719 --> 00:02:10,830
they think they aren't really scooping

43
00:02:08,159 --> 00:02:14,068

away real energy it's pretty bizarre

44

00:02:10,830 --> 00:02:16,860

it's pretty crazy and a report on that

45

00:02:14,068 --> 00:02:19,619

story with comments by dr. Steve Roberts

46

00:02:16,860 --> 00:02:22,620

and I coming up at the beginning of the

47

00:02:19,620 --> 00:02:24,569

show and don't forget there are links in

48

00:02:22,620 --> 00:02:27,840

this week's show notes to various videos

49

00:02:24,568 --> 00:02:30,989

and websites we discuss during this

50

00:02:27,840 --> 00:02:33,800

report following that it's brouhaha

51

00:02:30,990 --> 00:02:35,480

science from Australia Science Channel

52

00:02:33,800 --> 00:02:37,939

what do we have this week oh it's Casey

53

00:02:35,479 --> 00:02:40,069

Harrigan Casey harrigans going to be

54

00:02:37,939 --> 00:02:42,770

talking about an alternative to

55

00:02:40,069 --> 00:02:45,799

suspended animation for long distance

56

00:02:42,770 --> 00:02:47,480

space travelers more or less having a

57

00:02:45,800 --> 00:02:49,550

bit of a sleep having a bit of a

58
00:02:47,479 --> 00:02:52,729
hibernation and then she's going to

59
00:02:49,550 --> 00:02:55,490
discuss the hashtag share science on

60
00:02:52,729 --> 00:02:56,810
social media and later on in the show

61
00:02:55,490 --> 00:02:58,969
i'll be reading a report from the

62
00:02:56,810 --> 00:03:01,430
australian skeptics website about a

63
00:02:58,969 --> 00:03:04,069
chiropractor in New South Wales who has

64
00:03:01,430 --> 00:03:08,330
just been found guilty of misleading

65
00:03:04,069 --> 00:03:10,430
advertising and find a huge amount of

66
00:03:08,330 --> 00:03:13,610
money well it's a lot more serious than

67
00:03:10,430 --> 00:03:16,730
simply making misleading advertising

68
00:03:13,610 --> 00:03:19,130
claims and she does those misleading

69
00:03:16,729 --> 00:03:22,429
claims revolve around making false

70
00:03:19,129 --> 00:03:24,049
claims of curing cancer all that and

71
00:03:22,430 --> 00:03:26,030
more coming up in this week's episode of

72
00:03:24,050 --> 00:03:28,969
the skeptic zone including right at the

73
00:03:26,030 --> 00:03:31,009
end a quick chat with an old friend of

74
00:03:28,969 --> 00:03:34,039
mine Lindley here in Melbourne who has

75
00:03:31,009 --> 00:03:35,659
started her own podcast so I like to

76
00:03:34,039 --> 00:03:38,750
encourage this sort of thing listen at

77
00:03:35,659 --> 00:03:40,729
the end foreign brand new podcast called

78
00:03:38,750 --> 00:03:42,020
running with scissors I've had a

79
00:03:40,729 --> 00:03:43,369
wonderful time here in the Melbourne

80
00:03:42,020 --> 00:03:44,719
over the last few days with my friend

81
00:03:43,370 --> 00:03:47,360
Steve Roberts as I said we did this

82
00:03:44,719 --> 00:03:49,609
bicycle tour of the solar system we've

83
00:03:47,360 --> 00:03:51,650
been going downtown melbourne is a

84
00:03:49,610 --> 00:03:54,530
wonderful place for strolling around the

85
00:03:51,650 --> 00:03:56,150
shops and the site's here it's just

86

00:03:54,530 --> 00:03:58,789
beautiful and I was lucky enough to

87
00:03:56,150 --> 00:04:00,860
cycle through a lot of Melbourne on this

88
00:03:58,789 --> 00:04:02,870
trip always a pleasure to be in

89
00:04:00,860 --> 00:04:06,170
Melbourne and I must say for the

90
00:04:02,870 --> 00:04:09,439
cyclists Melbourne is so much more cycle

91
00:04:06,169 --> 00:04:11,449
friendly than Sydney it's crazy and when

92
00:04:09,439 --> 00:04:13,250
you look for them here in Melbourne you

93
00:04:11,449 --> 00:04:16,250
do notice an awful lot of people on

94
00:04:13,250 --> 00:04:19,029
their bikes riding around and what I

95
00:04:16,250 --> 00:04:21,439
also love is downtown melbourne at

96
00:04:19,029 --> 00:04:24,519
certain convenience stores you can buy

97
00:04:21,439 --> 00:04:28,610
bicycle helmets for five dollars

98
00:04:24,519 --> 00:04:30,379
perfectly good fine usable safe bicycle

99
00:04:28,610 --> 00:04:33,319
helmets for five dollars I think that's

100
00:04:30,379 --> 00:04:35,269

a terrific idea so big tick to Melbourne

101

00:04:33,319 --> 00:04:37,879

for being more bicycle-friendly than

102

00:04:35,269 --> 00:04:41,060

Sydney mind you Sydney is very hilly

103

00:04:37,879 --> 00:04:42,500

there's lots of ups and downs and Sydney

104

00:04:41,060 --> 00:04:45,530

so it's a little bit more tricky to ride

105

00:04:42,500 --> 00:04:47,180

a bike but after looking at the

106

00:04:45,529 --> 00:04:49,969

situation here you

107

00:04:47,180 --> 00:04:53,930

nice to have a lot more dedicated bike

108

00:04:49,970 --> 00:04:55,070

areas in Sydney well that's enough for

109

00:04:53,930 --> 00:04:57,079

me at the moment you could probably hear

110

00:04:55,069 --> 00:05:00,139

various noises and sounds going on there

111

00:04:57,079 --> 00:05:01,609

are workers next door renovating a house

112

00:05:00,139 --> 00:05:03,199

so every now and then you hear drills

113

00:05:01,610 --> 00:05:04,759

and hammering and banging and things

114

00:05:03,199 --> 00:05:06,819

there are pipes going through this house

115
00:05:04,759 --> 00:05:10,009
with water flowing through them and

116
00:05:06,819 --> 00:05:11,870
aircraft flying overhead it's time for

117
00:05:10,009 --> 00:05:15,620
me to run out the door run around the

118
00:05:11,870 --> 00:05:17,870
corner to the kitchen of dr. Steve

119
00:05:15,620 --> 00:05:20,810
Roberts see if there are some blue

120
00:05:17,870 --> 00:05:24,019
cheese and peanuts what a combination I

121
00:05:20,810 --> 00:05:26,750
like that blue cheese and very strong

122
00:05:24,019 --> 00:05:30,529
flavor and nice roasted peanuts while I

123
00:05:26,750 --> 00:05:30,860
munch those I hope you enjoy the skeptic

124
00:05:30,529 --> 00:05:52,829
zone

125
00:05:30,860 --> 00:05:52,830
[Music]

126
00:05:53,810 --> 00:05:58,709
now Steve you and I should discuss this

127
00:05:56,250 --> 00:06:01,319
whole kerfuffle about therapeutic touch

128
00:05:58,709 --> 00:06:03,180
yeah at the moment but before we do that

129
00:06:01,319 --> 00:06:07,759
I thought we'd they give the listeners a

130
00:06:03,180 --> 00:06:07,759
bit of am a puzzle what's this noise is

131
00:06:13,399 --> 00:06:18,179
that a UFO or going overhead I don't

132
00:06:16,110 --> 00:06:23,250
know what was cowboy shooting the bullet

133
00:06:18,180 --> 00:06:24,959
ricochet cowboys and yeah but just I'm

134
00:06:23,250 --> 00:06:27,269
visiting dr. Steve Roberts were in the

135
00:06:24,959 --> 00:06:28,739
kitchen and yes we're about to have a

136
00:06:27,269 --> 00:06:35,699
nice cup of cotton because this is a

137
00:06:28,740 --> 00:06:37,079
rather interesting coffee maker sounds

138
00:06:35,699 --> 00:06:40,439
great Steve I hope the coffee is good

139
00:06:37,079 --> 00:06:41,939
well for those yes coffee percolator

140
00:06:40,439 --> 00:06:43,980
that has got a lady went in the

141
00:06:41,939 --> 00:06:45,870
bottom then the tubes it's right over

142
00:06:43,980 --> 00:06:47,520
the anyone to the water boils at the

143

00:06:45,870 --> 00:06:50,759
elements even though that body of water

144
00:06:47,519 --> 00:06:53,519
is cold boiling water shoots up the tube

145
00:06:50,759 --> 00:06:55,860
and gets spit over the coffee grounds

146
00:06:53,519 --> 00:06:58,289
which will not get a hold of top light

147
00:06:55,860 --> 00:07:01,040
and the water filters down oh yes I can

148
00:06:58,290 --> 00:07:03,000
see the very tough for the leaders

149
00:07:01,040 --> 00:07:04,830
semi-transparent you can see the water

150
00:07:03,000 --> 00:07:07,290
gushing up a little but yeah there's a

151
00:07:04,829 --> 00:07:09,349
glass knob on the top and see the water

152
00:07:07,290 --> 00:07:11,819
landed the norm to come down again

153
00:07:09,350 --> 00:07:13,919
that's why I like to come to visit dr.

154
00:07:11,819 --> 00:07:16,978
Steve Roberts anyway let's go into the

155
00:07:13,918 --> 00:07:22,709
office and talk about this therapeutic

156
00:07:16,978 --> 00:07:24,689
touch how that soothing music stevia

157
00:07:22,709 --> 00:07:26,699

swill come into the office of dr. Steve

158

00:07:24,689 --> 00:07:29,310

Roberts which is just around the corner

159

00:07:26,699 --> 00:07:31,409

from his kitchen or just so happens it's

160

00:07:29,310 --> 00:07:33,870

very handy and we're looking at the

161

00:07:31,410 --> 00:07:34,830

video now I supplied on the ABC

162

00:07:33,870 --> 00:07:37,530

television

163

00:07:34,829 --> 00:07:40,680

my website here in Australia Healing

164

00:07:37,529 --> 00:07:44,039

Touch clinic at James Cook University in

165

00:07:40,680 --> 00:07:49,050

Queensland and we have a middle-aged

166

00:07:44,040 --> 00:07:52,290

woman presumably a nurse appearing to

167

00:07:49,050 --> 00:07:54,540

draw negative energy well for something

168

00:07:52,290 --> 00:07:56,760

something out of the shoes of an elderly

169

00:07:54,540 --> 00:07:59,160

patient I'm not kidding he's only

170

00:07:56,759 --> 00:08:01,459

dressed and she's wandering around this

171

00:07:59,160 --> 00:08:04,860

patient stroking him at the moment and

172
00:08:01,459 --> 00:08:06,870
she doesn't really touch it well smoking

173
00:08:04,860 --> 00:08:09,629
him sort of well I've been to the shirt

174
00:08:06,870 --> 00:08:12,110
there just a little bit away and the

175
00:08:09,629 --> 00:08:14,819
action is as if you're pretending to

176
00:08:12,110 --> 00:08:17,730
gather dust or something often to run

177
00:08:14,819 --> 00:08:20,550
away wipe something down she wipes bad

178
00:08:17,730 --> 00:08:23,370
vibes or write it all down into his feet

179
00:08:20,550 --> 00:08:26,009
and then and then defeat they kind of

180
00:08:23,370 --> 00:08:27,990
picks it up from the feet once you'd

181
00:08:26,009 --> 00:08:30,180
hold me a wet lettuce leaf yeah but

182
00:08:27,990 --> 00:08:32,129
she's picking up whatever it is has

183
00:08:30,180 --> 00:08:34,379
passed through the shoes is sticking out

184
00:08:32,129 --> 00:08:36,299
so you can pick it up then she dropped

185
00:08:34,379 --> 00:08:37,799
it on the floor this imaginary lettuce

186
00:08:36,299 --> 00:08:39,149
leaves you don't look troubled on the

187
00:08:37,799 --> 00:08:40,919
floor what happens that negative energy

188
00:08:39,149 --> 00:08:42,419
once it goes on the floor what a waste

189
00:08:40,919 --> 00:08:44,519
of any well what happens is that when

190
00:08:42,419 --> 00:08:49,529
the treatment is a patient stands up on

191
00:08:44,519 --> 00:08:52,199
the floor goes back into it so let me

192
00:08:49,529 --> 00:08:56,370
read you the story that was presented at

193
00:08:52,200 --> 00:08:59,490
from the ABC website here in the news

194
00:08:56,370 --> 00:09:02,370
section Healing Touch clinic opens at

195
00:08:59,490 --> 00:09:06,080
James Cook University in Australian

196
00:09:02,370 --> 00:09:11,129
first Australia's first against him home

197
00:09:06,080 --> 00:09:13,790
by Natalie fern bench and this was as

198
00:09:11,129 --> 00:09:15,990
reported what's his updated yesterday

199
00:09:13,789 --> 00:09:20,189
which would be what's today's date

200

00:09:15,990 --> 00:09:24,740
today's date is the 16th 16th so on the

201
00:09:20,190 --> 00:09:26,820
fifteenth of february australia's first

202
00:09:24,740 --> 00:09:28,889
university-based now this is important

203
00:09:26,820 --> 00:09:30,780
to remember Healing Touch clinic has

204
00:09:28,889 --> 00:09:35,340
opened in Townsville at James Cook

205
00:09:30,779 --> 00:09:39,089
University or J see you Healing Touch is

206
00:09:35,340 --> 00:09:41,250
described as an energy balancing therapy

207
00:09:39,090 --> 00:09:43,410
administered through gentle touching and

208
00:09:41,250 --> 00:09:46,259
manipulation of energy from a distance

209
00:09:43,409 --> 00:09:48,049
like spooky action may not speedy action

210
00:09:46,259 --> 00:09:53,389
and distance

211
00:09:48,049 --> 00:09:55,399
similar to Reiki or acupuncture they

212
00:09:53,389 --> 00:09:58,659
will solve something but the theater

213
00:09:55,399 --> 00:10:02,059
nurse theatre nurse and healing touch

214
00:09:58,659 --> 00:10:04,819

practitioner tracy jones said treatments

215

00:10:02,059 --> 00:10:07,639

moved the body's energy to promote

216

00:10:04,820 --> 00:10:12,980

healing does that make any sense no

217

00:10:07,639 --> 00:10:17,629

thank you that quote quote what it

218

00:10:12,980 --> 00:10:20,659

really does it unsticks your energy so

219

00:10:17,629 --> 00:10:23,088

you can heal yourself have you ever had

220

00:10:20,659 --> 00:10:26,360

your energy unstuck yet quite payer

221

00:10:23,089 --> 00:10:27,680

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

222

00:10:26,360 --> 00:10:30,470

something you want to have your energy

223

00:10:27,679 --> 00:10:32,389

unstuck must be stuck to something in

224

00:10:30,470 --> 00:10:34,250

the business of coming from a

225

00:10:32,389 --> 00:10:35,600

traditional medical background now

226

00:10:34,250 --> 00:10:38,328

that's disappointing because she should

227

00:10:35,600 --> 00:10:40,459

know better Ms Jones said she was

228

00:10:38,328 --> 00:10:43,189

initially skeptical about healing touch

229
00:10:40,458 --> 00:10:45,859
therapy have we heard that before I was

230
00:10:43,190 --> 00:10:47,360
a skip I you are skeptical maybe um

231
00:10:45,860 --> 00:10:49,669
maybe you could yet become a hit to the

232
00:10:47,360 --> 00:10:52,759
Peter touch panel but it's the old story

233
00:10:49,669 --> 00:10:56,809
I was skeptical until until I was the

234
00:10:52,759 --> 00:10:59,179
biggest skeptic until quote for me it

235
00:10:56,809 --> 00:11:02,419
was a real eye-opener to actually

236
00:10:59,179 --> 00:11:04,519
embrace this but I see it working I feel

237
00:11:02,419 --> 00:11:07,819
the energy and other people can feel the

238
00:11:04,519 --> 00:11:09,500
energy to and quote she said now as when

239
00:11:07,820 --> 00:11:11,709
i read that yesterday for the first time

240
00:11:09,500 --> 00:11:14,299
i thought wow ok that's a testable claim

241
00:11:11,708 --> 00:11:15,979
yeah that's an absolutely a testable

242
00:11:14,299 --> 00:11:18,559
claim for the australian skeptics

243
00:11:15,980 --> 00:11:21,350
\$100,000 rights whether you could feel

244
00:11:18,559 --> 00:11:23,929
the energy although that that was tested

245
00:11:21,350 --> 00:11:25,730
long ago long ago it was which we'll get

246
00:11:23,929 --> 00:11:28,879
to shortly but she's making that claim

247
00:11:25,730 --> 00:11:31,339
now so we'd be happy to test him and the

248
00:11:28,879 --> 00:11:33,769
next headline says weaving complementary

249
00:11:31,339 --> 00:11:36,560
therapies in to study James Cook

250
00:11:33,769 --> 00:11:39,409
University senior lecturer Kristin

251
00:11:36,559 --> 00:11:41,929
wicking said complementary therapies

252
00:11:39,409 --> 00:11:43,730
were not offered as a nursing subject

253
00:11:41,929 --> 00:11:46,219
but students were made aware of the

254
00:11:43,730 --> 00:11:49,659
range of interventions that could be

255
00:11:46,220 --> 00:11:49,660
used to treat patients

256
00:11:49,860 --> 00:11:56,169
the healing touch clinic will be used

257

00:11:52,990 --> 00:11:59,110
for student clinical placements and will

258
00:11:56,169 --> 00:12:02,229
be X and will accept cross referrals

259
00:11:59,110 --> 00:12:06,090
from other allied health clinics on

260
00:12:02,230 --> 00:12:09,159
campus yeah that sounds a bit weird as a

261
00:12:06,090 --> 00:12:13,750
quote physiotherapy might be working on

262
00:12:09,159 --> 00:12:15,759
a client from their perspective that's

263
00:12:13,750 --> 00:12:19,629
not odd socially and she moved apart

264
00:12:15,759 --> 00:12:22,569
with all physiotherapy yeah but are

265
00:12:19,629 --> 00:12:24,820
aware that there are other aspects that

266
00:12:22,570 --> 00:12:27,160
we could add to the picture by giving

267
00:12:24,820 --> 00:12:29,980
them Healing Touch treatments and quote

268
00:12:27,159 --> 00:12:32,579
dr. wicking said so we'll just skip on

269
00:12:29,980 --> 00:12:35,830
then there's a photograph thereof

270
00:12:32,580 --> 00:12:38,550
presumably the nurse harnesses c healy

271
00:12:35,830 --> 00:12:41,080

about waving their hand over a patient

272

00:12:38,549 --> 00:12:42,909

doctor working said several several

273

00:12:41,080 --> 00:12:45,610

australian hospitals have healing touch

274

00:12:42,909 --> 00:12:47,259

clinics and services oh really but James

275

00:12:45,610 --> 00:12:50,399

Cook University will be Australia's

276

00:12:47,259 --> 00:12:55,149

first University to host a clinic and

277

00:12:50,399 --> 00:12:56,649

well the story the story goes on you can

278

00:12:55,149 --> 00:12:58,029

read a bit more for yourself i'll

279

00:12:56,649 --> 00:13:00,329

certainly add a link in the show notes

280

00:12:58,029 --> 00:13:03,339

but it's interesting to note that

281

00:13:00,330 --> 00:13:05,620

there's been quite a before over the

282

00:13:03,340 --> 00:13:07,600

last 24 hours about this story all lots

283

00:13:05,620 --> 00:13:12,669

of people jumping online obviously was

284

00:13:07,600 --> 00:13:16,360

people do and i noticed that in the feed

285

00:13:12,669 --> 00:13:19,419

in the news that came up if I can just

286
00:13:16,360 --> 00:13:21,909
find that someone has posted in one of

287
00:13:19,419 --> 00:13:24,579
the comments dr. wicking who completed

288
00:13:21,909 --> 00:13:27,039
her postdoctoral studies on healing

289
00:13:24,580 --> 00:13:29,050
touch said the therapy was well

290
00:13:27,039 --> 00:13:31,509
researched and proven to be effective on

291
00:13:29,049 --> 00:13:33,549
stress related conditions Oh has it

292
00:13:31,509 --> 00:13:36,340
that's interesting well I'd like to see

293
00:13:33,549 --> 00:13:40,449
those papers and then from the ABC

294
00:13:36,340 --> 00:13:44,139
website posted yesterday after all this

295
00:13:40,450 --> 00:13:46,360
sort of erupted ABC North Queensland

296
00:13:44,139 --> 00:13:49,509
thanks for sharing your thoughts on this

297
00:13:46,360 --> 00:13:52,269
topic it goes on to say James Cook

298
00:13:49,509 --> 00:13:54,610
University wishes to clarify that the

299
00:13:52,269 --> 00:13:57,220
university staff are not employed to

300
00:13:54,610 --> 00:13:59,889
work at the clinic quote The Healing

301
00:13:57,220 --> 00:14:03,100
Touch clinic is conducted by Healing

302
00:13:59,889 --> 00:14:05,529
Touch Townsville and not

303
00:14:03,100 --> 00:14:08,740
James Cook University while this clinic

304
00:14:05,529 --> 00:14:11,169
is conducted in a building on James Cook

305
00:14:08,740 --> 00:14:13,269
University Townsville campus james cook

306
00:14:11,169 --> 00:14:16,059
university has no contractual or

307
00:14:13,269 --> 00:14:18,250
financial relationship with it james

308
00:14:16,059 --> 00:14:20,379
cook university does not promote nor

309
00:14:18,250 --> 00:14:23,110
teach healing touch in its science-based

310
00:14:20,379 --> 00:14:26,559
nursing programs I wonder why that is

311
00:14:23,110 --> 00:14:30,220
because it doesn't matter if it's time

312
00:14:26,559 --> 00:14:32,229
space that we know hey if there is proof

313
00:14:30,220 --> 00:14:34,930
of it lets see it but I yeah I've seen

314

00:14:32,230 --> 00:14:37,360
food it does not work but what I'll do

315
00:14:34,929 --> 00:14:42,549
now Steve's I'll play a video clip which

316
00:14:37,360 --> 00:14:45,610
is from ABC America made almost 20 years

317
00:14:42,549 --> 00:14:48,599
ago of a very famous case where Emily

318
00:14:45,610 --> 00:14:51,669
Rosa an 11 year old student at the time

319
00:14:48,600 --> 00:14:54,490
tested therapeutic crafting done right

320
00:14:51,669 --> 00:14:56,469
now in mainstream American Hospital it's

321
00:14:54,490 --> 00:14:58,299
called therapeutic touch and it's

322
00:14:56,470 --> 00:15:01,330
practiced in hundreds of medical centers

323
00:14:58,299 --> 00:15:03,399
even during surgery in Connecticut nurse

324
00:15:01,330 --> 00:15:05,730
and minor does therapeutic touch on Lisa

325
00:15:03,399 --> 00:15:07,870
bracket to help treat her leukemia

326
00:15:05,730 --> 00:15:10,149
tremendous heat coming from your heart

327
00:15:07,870 --> 00:15:12,549
center they feel like they enter the

328
00:15:10,149 --> 00:15:15,159

nurse supposedly feels without touching

329

00:15:12,549 --> 00:15:17,919

three or four inches away feels the

330

00:15:15,159 --> 00:15:19,600

defective energy pouring out I can feel

331

00:15:17,919 --> 00:15:21,729

where the energy is balanced and where

332

00:15:19,600 --> 00:15:24,820

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

333

00:15:21,730 --> 00:15:26,470

intense I can feel it's depleted then

334

00:15:24,820 --> 00:15:28,600

she says she channel's the healing

335

00:15:26,470 --> 00:15:31,210

energy of the universe through her hands

336

00:15:28,600 --> 00:15:33,519

to you there's no scientific proof that

337

00:15:31,210 --> 00:15:36,310

this works but the patient says that

338

00:15:33,519 --> 00:15:39,149

doesn't matter I don't need explanations

339

00:15:36,309 --> 00:15:42,250

because I have faith in the process

340

00:15:39,149 --> 00:15:46,360

that's a really wonderful thing when you

341

00:15:42,250 --> 00:15:50,049

feel helpless terrified when you're

342

00:15:46,360 --> 00:15:52,570

given a diagnosis like I was it's hard

343
00:15:50,049 --> 00:15:54,250
to argue with satisfied patients but two

344
00:15:52,570 --> 00:15:55,960
years ago a nine-year-old girl in

345
00:15:54,250 --> 00:15:57,820
Colorado thought that for her fourth

346
00:15:55,960 --> 00:15:59,889
grade science project she put

347
00:15:57,820 --> 00:16:02,350
therapeutic touch to the test today

348
00:15:59,889 --> 00:16:04,929
we're gonna test you in halle you can

349
00:16:02,350 --> 00:16:07,450
feel the human energy field Emily roses

350
00:16:04,929 --> 00:16:09,309
test was simple she asked practitioners

351
00:16:07,450 --> 00:16:11,620
of therapeutic touch to feel the energy

352
00:16:09,309 --> 00:16:13,569
from her hand but first she had them put

353
00:16:11,620 --> 00:16:15,850
their hand through a towel and piece of

354
00:16:13,570 --> 00:16:16,670
cardboard so they couldn't see where her

355
00:16:15,850 --> 00:16:19,100
hand was

356
00:16:16,669 --> 00:16:21,469
she didn't ask them to heal anything she

357
00:16:19,100 --> 00:16:24,019
just asked the most basic question tell

358
00:16:21,470 --> 00:16:28,670
me which of your hands you think my hand

359
00:16:24,019 --> 00:16:32,590
is over left again and again touch

360
00:16:28,669 --> 00:16:34,729
therapists failed the test theft

361
00:16:32,590 --> 00:16:37,100
amazingly they kept volunteering to take

362
00:16:34,730 --> 00:16:38,779
the test and even when they failed to do

363
00:16:37,100 --> 00:16:40,100
better at picking the correct hand and

364
00:16:38,779 --> 00:16:44,089
they would have done flipping a coin

365
00:16:40,100 --> 00:16:46,430
right their faith and their skills was

366
00:16:44,090 --> 00:16:48,680
not dimmed this woman guessed right only

367
00:16:46,429 --> 00:16:52,209
three times out of 10 how do you think

368
00:16:48,679 --> 00:16:59,809
the test went I think it went very well

369
00:16:52,210 --> 00:17:02,870
k you got one right so were they

370
00:16:59,809 --> 00:17:05,480
embarrassed no not really sometime

371

00:17:02,870 --> 00:17:08,180
around of 10 right they thought you'd

372
00:17:05,480 --> 00:17:12,710
pass and obviously they didn't know

373
00:17:08,180 --> 00:17:14,269
there's two sis statistics we asked more

374
00:17:12,710 --> 00:17:16,340
than a dozen therapeutic touch

375
00:17:14,269 --> 00:17:21,609
specialists to come here and take your

376
00:17:16,339 --> 00:17:26,000
test and not one would that surprise you

377
00:17:21,609 --> 00:17:29,599
know why is lots of people think that I

378
00:17:26,000 --> 00:17:31,670
scared him really good well not that

379
00:17:29,599 --> 00:17:33,199
good though Emily's test got publicity

380
00:17:31,670 --> 00:17:34,580
it was published in the prestigious

381
00:17:33,200 --> 00:17:37,460
journal of the american medical

382
00:17:34,579 --> 00:17:40,639
association since then therapeutic touch

383
00:17:37,460 --> 00:17:42,170
is practiced more than ever 80,000

384
00:17:40,640 --> 00:17:44,300
practitioners most of them registered

385
00:17:42,170 --> 00:17:46,130

nurses who say they can feel the human

386

00:17:44,299 --> 00:17:48,619

energy field by passing their hands over

387

00:17:46,130 --> 00:17:50,270

the body she I'll give them a million

388

00:17:48,619 --> 00:17:52,159

dollars that they can prove that in a

389

00:17:50,269 --> 00:17:54,200

simple test that will take less than 20

390

00:17:52,160 --> 00:17:57,620

minutes do i hear anybody at the door

391

00:17:54,200 --> 00:17:59,480

John know where are they scientists say

392

00:17:57,619 --> 00:18:01,849

it's not the therapeutic touch or voodoo

393

00:17:59,480 --> 00:18:04,190

directly do anything physically to

394

00:18:01,849 --> 00:18:05,689

anyone it's just that if you believe in

395

00:18:04,190 --> 00:18:08,840

them they sometimes could have an effect

396

00:18:05,690 --> 00:18:11,570

the placebo effect is called if you

397

00:18:08,839 --> 00:18:14,599

think a therapy will work that alone may

398

00:18:11,569 --> 00:18:17,960

make you feel better Group one will be

399

00:18:14,599 --> 00:18:21,679

getting a substance that is will they

400
00:18:17,960 --> 00:18:23,809
you guys Steve almost 20 years ago this

401
00:18:21,680 --> 00:18:26,120
topic was tackled by the live in your

402
00:18:23,809 --> 00:18:28,490
own girl as you published a paper on it

403
00:18:26,119 --> 00:18:29,369
yeah yeah wallpaper is a very simple

404
00:18:28,490 --> 00:18:30,720
test switch

405
00:18:29,369 --> 00:18:33,299
reliving your own could devise a

406
00:18:30,720 --> 00:18:36,269
minister no they basically stick their

407
00:18:33,299 --> 00:18:38,639
hands full screen and she hovers her

408
00:18:36,269 --> 00:18:40,920
hand over one hand or the other yeah and

409
00:18:38,640 --> 00:18:43,350
the patient the patient can't tell which

410
00:18:40,920 --> 00:18:44,640
that she says he's over the left handle

411
00:18:43,349 --> 00:18:47,819
the right hand and they have to guess

412
00:18:44,640 --> 00:18:51,540
and we can wait tables and Jesus weights

413
00:18:47,819 --> 00:18:53,069
and it comes out 5050 so I imagine that

414
00:18:51,539 --> 00:18:55,319
I think that would be a very similar

415
00:18:53,069 --> 00:18:58,019
test we could conduct today on this

416
00:18:55,319 --> 00:19:00,299
these people from ya up there in

417
00:18:58,019 --> 00:19:01,859
Queensland who are promoting this clinic

418
00:19:00,299 --> 00:19:03,629
and say it's proof or they say they can

419
00:19:01,859 --> 00:19:05,159
feel the energy of great we can do that

420
00:19:03,630 --> 00:19:06,809
if they can feel the energy the money's

421
00:19:05,160 --> 00:19:08,250
there is what if it works Australia

422
00:19:06,808 --> 00:19:10,109
skeptics offers a hundred thousand

423
00:19:08,250 --> 00:19:11,308
dollar prize for demonstrations about

424
00:19:10,109 --> 00:19:13,829
that but actually a hundred thousand

425
00:19:11,308 --> 00:19:16,259
dollars will be nothing compared to the

426
00:19:13,829 --> 00:19:17,939
benefits that will flow for it if it did

427
00:19:16,259 --> 00:19:19,799
work if a good work if you could get

428

00:19:17,940 --> 00:19:22,080
treatment with just the bare hand yeah

429
00:19:19,799 --> 00:19:23,759
no equipment that's worth on the grind

430
00:19:22,079 --> 00:19:25,589
of anybody's money so that's one of the

431
00:19:23,759 --> 00:19:27,150
old stories of course people say are you

432
00:19:25,589 --> 00:19:29,250
skeptics you don't have the money or you

433
00:19:27,150 --> 00:19:30,720
wouldn't give it to us if we passed your

434
00:19:29,250 --> 00:19:33,150
test you know we're not going to your

435
00:19:30,720 --> 00:19:36,390
test meaning in a let me do it but the I

436
00:19:33,150 --> 00:19:37,679
but of course and even with a million

437
00:19:36,390 --> 00:19:39,990
dollars in the United States as well

438
00:19:37,679 --> 00:19:42,360
look at it if you can pass the test then

439
00:19:39,990 --> 00:19:44,460
what's this money who cares yeah their

440
00:19:42,359 --> 00:19:46,349
money you know if you can do what you

441
00:19:44,460 --> 00:19:48,779
play you learn care about a hundred

442
00:19:46,349 --> 00:19:50,909

felonies are printing all that you could

443

00:19:48,779 --> 00:19:52,319

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

444

00:19:50,910 --> 00:19:54,090

lot of money but you can't even buy a

445

00:19:52,319 --> 00:19:57,569

house in Sydney for that paltry amount

446

00:19:54,089 --> 00:19:59,399

him yeah but we tested a dowser once he

447

00:19:57,569 --> 00:20:02,939

could divine water with a bent stick

448

00:19:59,400 --> 00:20:04,679

around and he got 12 little 20 right you

449

00:20:02,940 --> 00:20:06,630

know and he said I did pretty well you

450

00:20:04,679 --> 00:20:08,190

know I'm pretty good at this I can look

451

00:20:06,630 --> 00:20:10,260

forward or 20 right and I said well

452

00:20:08,190 --> 00:20:12,000

actually today we've conducted nearly a

453

00:20:10,259 --> 00:20:13,440

hundred tests and you know someone's

454

00:20:12,000 --> 00:20:15,450

going to get 12 someone's going to get

455

00:20:13,440 --> 00:20:17,580

eight yes it's on you get four teams

456

00:20:15,450 --> 00:20:19,650

somebody else did and it's actually not

457
00:20:17,579 --> 00:20:22,439
significant it's just an ordinary result

458
00:20:19,650 --> 00:20:24,540
the guy hundin harms him using front of

459
00:20:22,440 --> 00:20:27,150
his wife and mate singer you said well

460
00:20:24,539 --> 00:20:29,099
like I'm happy to be ordinary and I said

461
00:20:27,150 --> 00:20:31,890
well that's actually very very wise

462
00:20:29,099 --> 00:20:33,899
because if you really could do this you

463
00:20:31,890 --> 00:20:36,360
know your life will be miserable maybe

464
00:20:33,900 --> 00:20:36,999
everybody would wonder you do any oil in

465
00:20:36,359 --> 00:20:40,328
the ground

466
00:20:36,999 --> 00:20:42,489
and weapons Orban landmines and you'd be

467
00:20:40,328 --> 00:20:45,158
much in demand and every time you failed

468
00:20:42,489 --> 00:20:46,769
you get told off and there you really

469
00:20:45,159 --> 00:20:50,369
you're better off just being ordinary

470
00:20:46,769 --> 00:20:52,538
let's just enjoy life just enjoy it and

471
00:20:50,368 --> 00:20:54,488
well I mean it's good that when people

472
00:20:52,538 --> 00:20:56,858
do actually come to be tested we do we

473
00:20:54,489 --> 00:20:58,538
do appreciate it and if you want to be

474
00:20:56,858 --> 00:21:00,759
tested for therapeutic touch just to

475
00:20:58,538 --> 00:21:02,318
head to skeptics calm delay you and find

476
00:21:00,759 --> 00:21:05,378
out all the details but in the meantime

477
00:21:02,318 --> 00:21:07,118
Steve I think we can sit back grab some

478
00:21:05,378 --> 00:21:10,388
popcorn and keep watching the fallout

479
00:21:07,118 --> 00:21:12,068
that's headed up north to the James Cook

480
00:21:10,388 --> 00:21:14,408
University for even being associated

481
00:21:12,068 --> 00:21:16,388
with this nonsense well the communities

482
00:21:14,409 --> 00:21:18,309
has dissociated themselves from it but

483
00:21:16,388 --> 00:21:21,548
it happens it building on their campus

484
00:21:18,308 --> 00:21:24,428
yeah I wonder what else is hanging

485

00:21:21,548 --> 00:21:26,528
around on their campus the things get

486
00:21:24,429 --> 00:21:28,298
referred to change that's right who

487
00:21:26,528 --> 00:21:29,858
knows what's going on there are dowsing

488
00:21:28,298 --> 00:21:31,838
lessons or something thing well as I

489
00:21:29,858 --> 00:21:34,778
bill me like to send patients there or

490
00:21:31,838 --> 00:21:37,928
whatever but yeah they have dissociated

491
00:21:34,778 --> 00:21:39,788
themselves for it formally oh well as we

492
00:21:37,929 --> 00:21:41,619
say watch this space for further

493
00:21:39,788 --> 00:21:44,288
developments all the links to the videos

494
00:21:41,618 --> 00:21:46,568
and the articles folks on this week's

495
00:21:44,288 --> 00:21:49,048
show notes Steve thanks very much for

496
00:21:46,568 --> 00:21:49,048
public

497
00:21:50,309 --> 00:21:53,750
[Music]

498
00:21:57,599 --> 00:22:09,449
[Music]

499
00:22:05,660 --> 00:22:12,810

and now direct from the cafe at

500

00:22:09,450 --> 00:22:20,190

Australia's science channel its brouhaha

501

00:22:12,809 --> 00:22:22,500

with Casey Harrigan interplanetary space

502

00:22:20,190 --> 00:22:24,299

travel just ain't what it used to be yep

503

00:22:22,500 --> 00:22:26,009

go on to the days of the future was

504

00:22:24,299 --> 00:22:28,500

falling asleep in Earth neighborhood and

505

00:22:26,009 --> 00:22:31,920

waking up light years later in a galaxy

506

00:22:28,500 --> 00:22:34,589

far far away the future of the future is

507

00:22:31,920 --> 00:22:36,690

nothing an American company is working

508

00:22:34,589 --> 00:22:38,759

on a stasis chamber where the ash shorts

509

00:22:36,690 --> 00:22:41,430

would be cooled down so much they would

510

00:22:38,759 --> 00:22:44,400

enter therapeutic hypothermia so far so

511

00:22:41,430 --> 00:22:46,470

good but here's the twist a fortnight

512

00:22:44,400 --> 00:22:48,690

later they'd be stretching and yawning

513

00:22:46,470 --> 00:22:50,519

and wiping two weeks worth of that we

514
00:22:48,690 --> 00:22:52,559
had crossed out of their eyes they

515
00:22:50,519 --> 00:22:54,240
probably have some brekkie check their

516
00:22:52,559 --> 00:22:55,829
news feeds take care of any astronaut

517
00:22:54,240 --> 00:22:57,960
business and then it's time to climb

518
00:22:55,829 --> 00:23:00,419
back in for another nap sounds pretty

519
00:22:57,960 --> 00:23:02,309
great actually not only would this be

520
00:23:00,420 --> 00:23:04,140
safer than continuous suspended

521
00:23:02,309 --> 00:23:05,789
animation but the astronauts could be on

522
00:23:04,140 --> 00:23:08,009
different sleep cycles so they would

523
00:23:05,789 --> 00:23:10,289
always be at least one person awake to

524
00:23:08,009 --> 00:23:12,420
monitor the spaceship and I'm not saying

525
00:23:10,289 --> 00:23:14,639
that person should pull pranks and all

526
00:23:12,420 --> 00:23:17,570
those other sleeping astronauts I'm just

527
00:23:14,640 --> 00:23:17,570
saying they could

528
00:23:19,480 --> 00:23:25,339
we've all been hacked my news feeds were

529
00:23:23,029 --> 00:23:28,339
once a safe haven of puppies cephalopods

530
00:23:25,339 --> 00:23:30,379
and rocket ships but lately every time I

531
00:23:28,339 --> 00:23:32,779
log in I'm getting way more politics and

532
00:23:30,380 --> 00:23:35,000
planets and I know I'm not alone but

533
00:23:32,779 --> 00:23:37,789
here at brewhaha we know that the best

534
00:23:35,000 --> 00:23:39,650
defense is a good offense so like the

535
00:23:37,789 --> 00:23:42,259
good scientists we are we want to run an

536
00:23:39,650 --> 00:23:44,090
experiment our hypothesis is that the

537
00:23:42,259 --> 00:23:46,009
more science we put out the more we'll

538
00:23:44,089 --> 00:23:49,279
get back on our feet and there's only

539
00:23:46,009 --> 00:23:51,319
one way to find out let's do it share

540
00:23:49,279 --> 00:23:54,230
your science stories it's going to be

541
00:23:51,319 --> 00:23:56,389
really easy step one find a good science

542

00:23:54,230 --> 00:23:58,579
story step 2 share it on your social

543
00:23:56,390 --> 00:24:01,670
media and use the hashtag share science

544
00:23:58,579 --> 00:24:03,589
and step 3 what's your feed transform

545
00:24:01,670 --> 00:24:06,140
from an orange blob into a kaleidoscope

546
00:24:03,589 --> 00:24:08,119
of science so whether you're telling

547
00:24:06,140 --> 00:24:10,040
your own story introducing the world to

548
00:24:08,119 --> 00:24:12,529
your favorite scientist or shedding some

549
00:24:10,039 --> 00:24:15,230
light on a mind-blowing discovery get it

550
00:24:12,529 --> 00:24:17,450
out there share it today don't even wait

551
00:24:15,230 --> 00:24:20,909
do it right now let's take back our news

552
00:24:17,450 --> 00:24:24,239
feeds hashtag share science

553
00:24:20,909 --> 00:24:37,528
for more brouhaha and Australian science

554
00:24:24,239 --> 00:24:41,788
head for ww Australia science TV from

555
00:24:37,528 --> 00:24:45,808
the Glasgow skeptics homeopathy in the

556
00:24:41,788 --> 00:24:47,848

UK with Michael Marshall now this is

557

00:24:45,808 --> 00:24:53,668
happening on the twenty-seventh of march

558

00:24:47,848 --> 00:24:58,528
from 7pm the Admiral bar 72 a waterloo

559

00:24:53,669 --> 00:25:00,570
street in glasgow homeopathy is one of

560

00:24:58,528 --> 00:25:03,089
the most widely debunked forms of

561

00:25:00,569 --> 00:25:05,638
alternative medicine yet homeopathic

562

00:25:03,089 --> 00:25:08,428
remedies adorn the shelves of respected

563

00:25:05,638 --> 00:25:12,329
pharmacies and are funded by taxpayers

564

00:25:08,429 --> 00:25:14,340
on the NHS how big of a problem is this

565

00:25:12,329 --> 00:25:17,339
using information and personal

566

00:25:14,339 --> 00:25:19,519
experiences gathered during his last six

567

00:25:17,339 --> 00:25:22,888
years of campaigning against homeopathy

568

00:25:19,519 --> 00:25:25,259
Michael Marshall will highlight how much

569

00:25:22,888 --> 00:25:27,508
money is spent on homeopathic remedies

570

00:25:25,259 --> 00:25:30,298
and how this gives undeserved

571
00:25:27,509 --> 00:25:32,700
credibility to homeopathy how such

572
00:25:30,298 --> 00:25:36,269
remedies can lead to genuine harm and

573
00:25:32,700 --> 00:25:38,460
what you can do to help this event is

574
00:25:36,269 --> 00:25:40,440
free to attend although they will be

575
00:25:38,460 --> 00:25:42,179
asking for donations at the end of the

576
00:25:40,440 --> 00:25:44,879
talk but you are under no obligation

577
00:25:42,179 --> 00:25:48,570
whatsoever to donate maybe you can

578
00:25:44,878 --> 00:25:50,908
donate homeopathic Lee hmm however any

579
00:25:48,569 --> 00:25:53,189
money that is donated is used to fund

580
00:25:50,909 --> 00:25:56,070
the overhead costs and travel and

581
00:25:53,190 --> 00:25:58,139
accommodation for speakers so that's

582
00:25:56,069 --> 00:26:02,189
homeopathy in the UK with Michael

583
00:25:58,138 --> 00:26:05,638
Marshall the 27th of March at 7pm the

584
00:26:02,190 --> 00:26:07,979
Admiral bar 72 a waterloo street in

585
00:26:05,638 --> 00:26:10,258
glasgow for more information check out

586
00:26:07,979 --> 00:26:13,080
the facebook page of the glasgow

587
00:26:10,259 --> 00:26:14,630
skeptics or just follow the links from

588
00:26:13,079 --> 00:26:26,199
this week's show knows

589
00:26:14,630 --> 00:26:26,200
[Music]

590
00:26:34,049 --> 00:26:40,690
[Music]

591
00:26:42,888 --> 00:26:48,538
well we're hearing now what near the MCG

592
00:26:46,259 --> 00:26:50,610
the the cricket ground in Melbourne I'm

593
00:26:48,538 --> 00:26:52,349
here over dr. Steve Steve Roberts hello

594
00:26:50,609 --> 00:26:54,240
Steve indeed good morning Richard good

595
00:26:52,349 --> 00:26:58,528
morning it's a nice overcast morning

596
00:26:54,240 --> 00:26:59,669
we're on a bike ride ah for science you

597
00:26:58,528 --> 00:27:01,259
know I'm glad you could come to

598
00:26:59,669 --> 00:27:03,840
Melbourne for the overcast season which

599

00:27:01,259 --> 00:27:05,669
is this january to december hello who is

600
00:27:03,839 --> 00:27:07,829
welcome to right now i'm here to see the

601
00:27:05,669 --> 00:27:09,659
overcast skies I just came from heat

602
00:27:07,829 --> 00:27:13,980
wave Sydney to a nice cool Christmas Mel

603
00:27:09,659 --> 00:27:15,809
45 insidious only it's 90 s Elvin yeah

604
00:27:13,980 --> 00:27:17,849
we need the mobile quick counter near

605
00:27:15,808 --> 00:27:20,700
richmond station there's a big football

606
00:27:17,849 --> 00:27:22,319
field and park here by tried will start

607
00:27:20,700 --> 00:27:24,240
from the eggs we can meet and go yakety

608
00:27:22,319 --> 00:27:26,849
yak and then we take off alone bike

609
00:27:24,240 --> 00:27:28,649
paths and keep writing yeah but the goal

610
00:27:26,849 --> 00:27:31,859
today is to actually go down to the

611
00:27:28,648 --> 00:27:35,128
coast nissin kilda is that if i'm right

612
00:27:31,859 --> 00:27:37,019
yeah and look at a scale model of the

613
00:27:35,128 --> 00:27:39,058

solar system that's right you about 20

614

00:27:37,019 --> 00:27:41,669

years ago some maniac of astronomers

615

00:27:39,058 --> 00:27:43,950

built a billy a billion-to-one scale

616

00:27:41,669 --> 00:27:46,860

model so the Sun is about four feet

617

00:27:43,950 --> 00:27:49,620

across one point three meters so I and

618

00:27:46,859 --> 00:27:51,178

the planets are like 50 meters Mercury

619

00:27:49,619 --> 00:27:53,459

Venus Earth Mars a 50-meter intervals

620

00:27:51,179 --> 00:27:55,590

from that minute some killer waters of

621

00:27:53,460 --> 00:27:57,298

Jupiter and there's seven kilometers to

622

00:27:55,589 --> 00:27:58,949

Pluto which of course was a planet when

623

00:27:57,298 --> 00:28:00,599

they built the model yes we're going to

624

00:27:58,950 --> 00:28:02,548

see all that this morning sir so our

625

00:28:00,599 --> 00:28:05,069

goal is to ride from here and that'll

626

00:28:02,548 --> 00:28:06,628

take us what to get to an hour that's

627

00:28:05,069 --> 00:28:09,000

all right then we have a cup of coffee

628
00:28:06,628 --> 00:28:10,859
yeah the cafe there's and then check out

629
00:28:09,000 --> 00:28:12,388
the the solar system so I'd end up back

630
00:28:10,859 --> 00:28:15,298
in the middle of Melbourne about midday

631
00:28:12,388 --> 00:28:17,908
yeah this sounds like a nice way to

632
00:28:15,298 --> 00:28:19,470
spend a morning actually or a day yeah

633
00:28:17,909 --> 00:28:20,610
well we've got you back about lunchtime

634
00:28:19,470 --> 00:28:25,639
in the city and of course that's

635
00:28:20,609 --> 00:28:25,638
lunchtime then it all makes sense

636
00:28:26,230 --> 00:28:30,470
he's there now you will call out because

637
00:28:29,000 --> 00:28:32,960
you can't be stopped on that path you

638
00:28:30,470 --> 00:28:34,490
know but we're going to be media stars

639
00:28:32,960 --> 00:28:38,150
they are going to be media stars i'm

640
00:28:34,490 --> 00:28:40,609
here at the Sun Steve Roberts indeed you

641
00:28:38,150 --> 00:28:43,870
are over to do this is a standing right

642
00:28:40,609 --> 00:28:47,449
next to a scale model of this hot oh yes

643
00:28:43,869 --> 00:28:49,639
about four feet across it is I'm right

644
00:28:47,450 --> 00:28:51,380
here on the coast and we can walk right

645
00:28:49,640 --> 00:28:54,410
around I've done a pretty good job to

646
00:28:51,380 --> 00:28:57,610
try and represent in this metal the the

647
00:28:54,410 --> 00:29:01,279
surface of the sun I see ya and if we

648
00:28:57,609 --> 00:29:02,479
gaze down the path there we can start to

649
00:29:01,279 --> 00:29:05,269
see other planets which we'll get to

650
00:29:02,480 --> 00:29:07,099
shortly in DB will ya about the size of

651
00:29:05,269 --> 00:29:10,250
a pea or grain of ice if you're lucky

652
00:29:07,099 --> 00:29:11,869
yeah yo dundo scale 1 billion to one and

653
00:29:10,250 --> 00:29:14,150
what's this over here as other please

654
00:29:11,869 --> 00:29:16,939
love them it's a lump we'll just walk

655
00:29:14,150 --> 00:29:18,500
over here we'll explain what it is is

656

00:29:16,940 --> 00:29:21,200
this not the Sun is not made of this

657
00:29:18,500 --> 00:29:23,750
stuff whatever it is yeah we're not sure

658
00:29:21,200 --> 00:29:27,558
what that is what's it say beyond the

659
00:29:23,750 --> 00:29:32,419
solar system I used to mean to be a bit

660
00:29:27,558 --> 00:29:35,058
of interstellar glob oh okay not exactly

661
00:29:32,419 --> 00:29:36,050
sure we're right near a skateboard park

662
00:29:35,058 --> 00:29:39,230
and

663
00:29:36,049 --> 00:29:41,210
as the road just over there so I'm with

664
00:29:39,230 --> 00:29:43,610
a group of about eight other people or

665
00:29:41,210 --> 00:29:46,549
been riding through Melbourne which has

666
00:29:43,609 --> 00:29:50,089
been absolutely delightful 11 kilometres

667
00:29:46,549 --> 00:29:54,889
so far and now we're off to explore the

668
00:29:50,089 --> 00:30:00,259
rest of the solar system now we've

669
00:29:54,890 --> 00:30:02,870
written about 30 seconds down to mercury

670
00:30:00,259 --> 00:30:04,490

and we're all having to lean in and look

671

00:30:02,869 --> 00:30:08,329
carefully because mercury is hardly

672

00:30:04,490 --> 00:30:12,470
there at all on the scale it's tiny it's

673

00:30:08,329 --> 00:30:14,990
about the size of a white Toyota lead at

674

00:30:12,470 --> 00:30:17,569
the half a peek not even that but you're

675

00:30:14,990 --> 00:30:19,700
two grains of rice so here we are at

676

00:30:17,569 --> 00:30:22,490
mercury seeing else more that is we gaze

677

00:30:19,700 --> 00:30:26,750
back to the Sun and that's quite a

678

00:30:22,490 --> 00:30:29,660
distance on this scale that's quite

679

00:30:26,750 --> 00:30:31,849
interesting to see the distance over to

680

00:30:29,660 --> 00:30:37,840
the Sun which we can now see in the

681

00:30:31,849 --> 00:30:37,839
background yeah so on to Venus

682

00:30:38,269 --> 00:30:42,149
in fact I think I'll walk the distance

683

00:30:40,500 --> 00:30:49,970
to Venus because I can just see it down

684

00:30:42,148 --> 00:30:54,658
here so now traveling through the

685
00:30:49,970 --> 00:31:01,919
through the space between Mercury and

686
00:30:54,659 --> 00:31:05,460
Venus which doesn't take long at this

687
00:31:01,919 --> 00:31:13,080
scale and this I can see it coming up

688
00:31:05,460 --> 00:31:16,190
now on its plinth and here it is i'll

689
00:31:13,079 --> 00:31:16,189
just park my bike

690
00:31:19,200 --> 00:31:27,630
I have a quick look at Venus before we

691
00:31:24,599 --> 00:31:29,759
travel onto the earth Venus here it is

692
00:31:27,630 --> 00:31:32,700
and it's about the size of a large p l

693
00:31:29,759 --> 00:31:36,599
suppose it's just fascinating I can look

694
00:31:32,700 --> 00:31:39,360
back and the Sun is now getting further

695
00:31:36,599 --> 00:31:42,719
and further away so it's off to the next

696
00:31:39,359 --> 00:31:46,349
planet which is Earth this is quite a

697
00:31:42,720 --> 00:31:47,940
yeah it's a nice day out too because i'm

698
00:31:46,349 --> 00:31:53,129
right by the water now you can hear the

699
00:31:47,940 --> 00:31:59,159
seagulls in the background and here's

700
00:31:53,130 --> 00:32:01,409
earth it was quite cute they've got

701
00:31:59,159 --> 00:32:05,789
earth and the moon as well on the same

702
00:32:01,409 --> 00:32:07,740
plinth now we turn around look the Sun

703
00:32:05,788 --> 00:32:10,169
is getting further and further away into

704
00:32:07,740 --> 00:32:15,388
the distance that's quite interesting

705
00:32:10,169 --> 00:32:18,330
okay now on to the next planet come to

706
00:32:15,388 --> 00:32:20,879
Mars Mars honest little plinth about the

707
00:32:18,329 --> 00:32:22,678
size of a small pee again I like to look

708
00:32:20,880 --> 00:32:25,860
back where's the Sun oh there it is

709
00:32:22,679 --> 00:32:28,798
right in the distance now further and

710
00:32:25,859 --> 00:32:30,629
further away and some of my friends have

711
00:32:28,798 --> 00:32:38,038
all ridden off without me I better hurry

712
00:32:30,630 --> 00:32:40,320
along to Jupiter okay now the first

713

00:32:38,038 --> 00:32:45,500
planets we could walk to from the Sun

714
00:32:40,319 --> 00:32:48,329
quite easily look back the Jupiter

715
00:32:45,500 --> 00:32:51,298
Jupiter distance from master duper of

716
00:32:48,329 --> 00:32:53,278
this scale meant I had to jump on my

717
00:32:51,298 --> 00:32:58,528
bike and right after everybody else and

718
00:32:53,278 --> 00:33:01,888
I'm looking back and I can't see the Sun

719
00:32:58,528 --> 00:33:05,038
anymore it's so far away in the distance

720
00:33:01,888 --> 00:33:08,189
in the background and we can walk over

721
00:33:05,038 --> 00:33:09,778
here now and we can have a look at

722
00:33:08,190 --> 00:33:12,240
Jupiter Jupiter's behind a little fence

723
00:33:09,778 --> 00:33:13,579
though it's behind some it's being

724
00:33:12,240 --> 00:33:17,210
worked on

725
00:33:13,579 --> 00:33:18,740
and that's the size of a long ball it

726
00:33:17,210 --> 00:33:20,840
even actually looks like it look like it

727
00:33:18,740 --> 00:33:22,579

looks like a long ball it's actually old

728

00:33:20,839 --> 00:33:25,490

late like a lawn bowls it's spinning

729

00:33:22,579 --> 00:33:28,789

fought it spins in 10 hours it's been so

730

00:33:25,490 --> 00:33:31,309

fast it flows out at the equator yeah he

731

00:33:28,789 --> 00:33:33,829

has a oval shape not not not spherical

732

00:33:31,309 --> 00:33:36,710

onset of biased on it's just me would

733

00:33:33,829 --> 00:33:38,419

not a plate yeah actually rotated be 10

734

00:33:36,710 --> 00:33:41,180

hour so she look at you look at the

735

00:33:38,420 --> 00:33:44,200

tesco you can see it moves of course and

736

00:33:41,180 --> 00:33:47,150

it's interesting when you actually

737

00:33:44,200 --> 00:33:48,890

travel the distance between Mars and

738

00:33:47,150 --> 00:33:51,259

Jupiter that's a big distance yeah

739

00:33:48,890 --> 00:33:53,420

that's a big dish that Sahara kilometer

740

00:33:51,259 --> 00:33:55,460

and we can't see the Sun anymore I can

741

00:33:53,420 --> 00:33:57,800

see where it is sawdust you can't see

742
00:33:55,460 --> 00:33:59,450
itself know about a kilometer now

743
00:33:57,799 --> 00:34:01,460
actually they they haven't done the

744
00:33:59,450 --> 00:34:04,279
asteroid belt okay they're done earth

745
00:34:01,460 --> 00:34:05,750
Venus Earth yeah Mars and the Dungey we

746
00:34:04,279 --> 00:34:07,129
haven't got a model of the asteroid we

747
00:34:05,750 --> 00:34:09,380
sort of road through it I think it's

748
00:34:07,130 --> 00:34:11,720
well actually over there somewhere the

749
00:34:09,380 --> 00:34:14,740
model makers didn't think of this but

750
00:34:11,719 --> 00:34:17,269
you see the sand on the beach yeah okay

751
00:34:14,739 --> 00:34:19,789
the put the grains of sand on the beach

752
00:34:17,269 --> 00:34:22,789
oh that's it about the right number and

753
00:34:19,789 --> 00:34:23,989
about the right size of the estero you

754
00:34:22,789 --> 00:34:26,690
know there's a lot of material we're

755
00:34:23,989 --> 00:34:31,639
right next to the beach now is some

756
00:34:26,690 --> 00:34:34,820
billions you know the Sandvik Anna all

757
00:34:31,639 --> 00:34:37,659
right so off on to Saturn yeah all right

758
00:34:34,820 --> 00:34:37,660
we're going to be a

759
00:34:42,230 --> 00:34:47,369
we've reached sat in his path going

760
00:34:44,608 --> 00:34:49,378
there and who's down to sort of one

761
00:34:47,369 --> 00:34:52,470
kilometer there was doubt a 50 metres

762
00:34:49,378 --> 00:34:54,868
thick 40 metres thick really and last

763
00:34:52,469 --> 00:34:56,338
hour there were ten meters thick and on

764
00:34:54,869 --> 00:34:58,619
that scale that would be one atom thick

765
00:34:56,338 --> 00:35:00,449
on the model when you cut your finger on

766
00:34:58,619 --> 00:35:02,250
it now that was quite a distance we've

767
00:35:00,449 --> 00:35:04,230
just come from Jupiter to hear about a

768
00:35:02,250 --> 00:35:05,789
kilometer yeah yeah it's amazing where I

769
00:35:04,230 --> 00:35:07,920
was a ride to think we must have missed

770

00:35:05,789 --> 00:35:10,410
it because we kept riding and riding and

771
00:35:07,920 --> 00:35:11,818
no sadly but here it is yeah we get that

772
00:35:10,409 --> 00:35:13,500
feeling when you get to the other parts

773
00:35:11,818 --> 00:35:16,679
but you're there Saturn Saturn's are all

774
00:35:13,500 --> 00:35:19,108
gasp it might have been water and other

775
00:35:16,679 --> 00:35:21,808
wings most parts have been more

776
00:35:19,108 --> 00:35:25,519
spectacular Saturn and there's different

777
00:35:21,809 --> 00:35:28,200
tongue there's gaps in the wings and

778
00:35:25,519 --> 00:35:29,909
Shepherd moons and things the Sun is now

779
00:35:28,199 --> 00:35:31,828
way back around the corner and down

780
00:35:29,909 --> 00:35:33,568
there you can't say which behind things

781
00:35:31,829 --> 00:35:36,298
but even if we could see it directly I

782
00:35:33,568 --> 00:35:38,460
mean it'd be the son of a of tiny yeah

783
00:35:36,298 --> 00:35:41,000
behind that building about as far again

784
00:35:38,460 --> 00:35:43,829

as the building yeah yeah so that's

785

00:35:41,000 --> 00:35:45,358

quite a big deal to how many rings does

786

00:35:43,829 --> 00:35:46,950

that in half I don't think anybody knows

787

00:35:45,358 --> 00:35:51,028

really many weeks thousands of things

788

00:35:46,949 --> 00:35:58,919

yeah it develops in it there's about 30

789

00:35:51,028 --> 00:36:02,460

I that's cold yeah while the week the

790

00:35:58,920 --> 00:36:04,740

Rings arm it's got about 80 booms I mean

791

00:36:02,460 --> 00:36:06,449

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

792

00:36:04,739 --> 00:36:08,879

got smaller ones and the views

793

00:36:06,449 --> 00:36:11,489

themselves are made of lumps of rock and

794

00:36:08,880 --> 00:36:13,380

whatnot so their beans all strictly moon

795

00:36:11,489 --> 00:36:15,449

so it's got billions of moons yeah yeah

796

00:36:13,380 --> 00:36:17,130

yeah yeah no stop counting them because

797

00:36:15,449 --> 00:36:19,078

the wings are held in place by moons

798

00:36:17,130 --> 00:36:22,349

they called Shepherd moons and they

799

00:36:19,079 --> 00:36:23,700

clear a gap in de in the vegan I think

800

00:36:22,349 --> 00:36:26,099

there's a probe just about to go through

801

00:36:23,699 --> 00:36:27,568

some of these days staring at you house

802

00:36:26,099 --> 00:36:29,130

through the Rings yeah that you might

803

00:36:27,568 --> 00:36:31,199

disturb the wings doing that because

804

00:36:29,130 --> 00:36:33,778

they are delicately gravity bound in

805

00:36:31,199 --> 00:36:35,939

reckon you little bit like that driving

806

00:36:33,778 --> 00:36:38,608

something like a far drive going to a

807

00:36:35,940 --> 00:36:40,769

swamp you go slush vandalism there are

808

00:36:38,608 --> 00:36:42,420

two moons that fall over each other ones

809

00:36:40,769 --> 00:36:45,050

ahead there with the orbit like that and

810

00:36:42,420 --> 00:36:47,180

they turn over they go like that

811

00:36:45,050 --> 00:36:49,820

as the plane of the Rings the same plane

812

00:36:47,179 --> 00:36:53,049

as the solvent no no it's not it's

813
00:36:49,820 --> 00:36:56,660
tilted and that every 20 years umm

814
00:36:53,050 --> 00:37:01,210
salamah Sun in 24 years you see the

815
00:36:56,659 --> 00:37:03,259
wings go age on some moment okay and

816
00:37:01,210 --> 00:37:05,990
well know that the wings would just

817
00:37:03,260 --> 00:37:07,850
formed Saturn's rotating that way the

818
00:37:05,989 --> 00:37:09,949
rotation not the same as the plane they

819
00:37:07,849 --> 00:37:12,409
Sabine's rotating with a with the planet

820
00:37:09,949 --> 00:37:13,939
so they are tilted and sometimes you see

821
00:37:12,409 --> 00:37:16,730
the mage on like that sometimes you see

822
00:37:13,940 --> 00:37:20,030
them you know some sort of random thing

823
00:37:16,730 --> 00:37:21,469
can happen Molly b-24 twice every 25

824
00:37:20,030 --> 00:37:24,890
years you see the edge on that you can't

825
00:37:21,469 --> 00:37:28,939
see them at all they're so thin so I

826
00:37:24,889 --> 00:37:30,889
guess it's on to our next gas planet

827

00:37:28,940 --> 00:37:37,550
which will be some distance away from

828
00:37:30,889 --> 00:37:39,650
here which would be Uranus Uranus or new

829
00:37:37,550 --> 00:37:42,380
litter so it's about the size of a golf

830
00:37:39,650 --> 00:37:44,780
ball yeah and that was quite a distance

831
00:37:42,380 --> 00:37:47,329
from Saturn wasn't sober kilowatt up

832
00:37:44,780 --> 00:37:50,570
here that's remarkable yeah there it is

833
00:37:47,329 --> 00:37:52,219
there it is not much just so it's all

834
00:37:50,570 --> 00:37:54,680
gaseous you cannot see features on it

835
00:37:52,219 --> 00:37:57,799
yeah I'm not much to see the telescope

836
00:37:54,679 --> 00:37:59,719
just a pale green sphere but it's there

837
00:37:57,800 --> 00:38:01,800
admittedly and it's quite it was quite a

838
00:37:59,719 --> 00:38:05,879
distance from satin um

839
00:38:01,800 --> 00:38:08,730
one of amazed one we've got other moon

840
00:38:05,880 --> 00:38:10,470
but one moon is one wound very big but

841
00:38:08,730 --> 00:38:13,170

that's that's a hell of a distance now

842

00:38:10,469 --> 00:38:16,289

that's amazing yeah well we still got a

843

00:38:13,170 --> 00:38:18,480

ways to go now over there that they are

844

00:38:16,289 --> 00:38:21,090

white that's the note the Norwegian

845

00:38:18,480 --> 00:38:23,769

ship that vote down is half alien

846

00:38:21,090 --> 00:38:29,680

Zealand that it comes out

847

00:38:23,769 --> 00:38:34,929

touch home back to Melbourne so we've

848

00:38:29,679 --> 00:38:35,919

arrived at Neptune the British in the

849

00:38:34,929 --> 00:38:38,250

journal

850

00:38:35,920 --> 00:38:41,470

hopefully the where nip tune should be

851

00:38:38,250 --> 00:38:43,900

and the British went along to AV the

852

00:38:41,469 --> 00:38:47,098

astronomer royal is it can we look at

853

00:38:43,900 --> 00:38:49,780

this place is it wait a time bar bug off

854

00:38:47,099 --> 00:38:52,269

the Germans look to a French telescope

855

00:38:49,780 --> 00:38:54,280

in Paris and they discovered it loveria

856
00:38:52,269 --> 00:38:56,108
so we were at by one night you know

857
00:38:54,280 --> 00:38:57,730
because of the elegance of the

858
00:38:56,108 --> 00:39:01,358
astronomer royal and that was quite a

859
00:38:57,730 --> 00:39:04,059
ride just from uranus to come to tune FK

860
00:39:01,358 --> 00:39:06,429
yeah yeah yeah oh you ain't seen Pluto

861
00:39:04,059 --> 00:39:08,380
yet and it's about on this scale

862
00:39:06,429 --> 00:39:10,328
Neptune's roughly the size of a golf

863
00:39:08,380 --> 00:39:12,400
ball or a little bit just a bit bigger

864
00:39:10,329 --> 00:39:14,980
than a golf ball and of course even

865
00:39:12,400 --> 00:39:16,660
Jupiter and the other plane is a so far

866
00:39:14,980 --> 00:39:18,730
away now we can't possibly hope to see

867
00:39:16,659 --> 00:39:20,289
even if we we have a clear line of sight

868
00:39:18,730 --> 00:39:22,750
we could barely see anything back there

869
00:39:20,289 --> 00:39:25,630
with a large w listen you can see I've

870
00:39:22,750 --> 00:39:28,329
had you pulling in behind that and then

871
00:39:25,630 --> 00:39:30,338
season it to you yeah yeah the 13 moons

872
00:39:28,329 --> 00:39:32,890
or there are surface their stories on

873
00:39:30,338 --> 00:39:34,838
the surface it's made of gas it

874
00:39:32,889 --> 00:39:36,969
impresses upon me doing this how close

875
00:39:34,838 --> 00:39:38,558
the inner planets are really do the Sun

876
00:39:36,969 --> 00:39:41,588
they're all gathered really close to the

877
00:39:38,559 --> 00:39:44,500
Sun then suddenly nothing if you try and

878
00:39:41,588 --> 00:39:46,150
draw a long time yeah get on the page so

879
00:39:44,500 --> 00:39:49,750
the Dino class would just be one dot

880
00:39:46,150 --> 00:39:51,280
with the Sun and the rest on the page so

881
00:39:49,750 --> 00:39:53,588
it's really hard to depict the solar

882
00:39:51,280 --> 00:39:55,269
system properly yeah so it's a big solar

883
00:39:53,588 --> 00:39:56,949
system with nothing in it and every now

884

00:39:55,269 --> 00:39:59,798
and then you bump into something like a

885
00:39:56,949 --> 00:40:01,480
planet like they're very unlikely

886
00:39:59,798 --> 00:40:03,559
because the orbit is you know this far

887
00:40:01,480 --> 00:40:06,048
out for the thumbs yeah

888
00:40:03,559 --> 00:40:08,599
the audis lot on the scale about 20

889
00:40:06,048 --> 00:40:11,869
kilometers long around the year so this

890
00:40:08,599 --> 00:40:14,539
week yeah that's unlike you hit it at

891
00:40:11,869 --> 00:40:16,309
random so you think we'll have any luck

892
00:40:14,539 --> 00:40:18,199
finding Bluto this right now where it is

893
00:40:16,309 --> 00:40:24,079
you know where it is okay otherwise you

894
00:40:18,199 --> 00:40:25,849
wouldn't find it with that we've reached

895
00:40:24,079 --> 00:40:30,680
Bhutto that the side of the moment and

896
00:40:25,849 --> 00:40:32,989
it's the size of a it's tiny it's

897
00:40:30,679 --> 00:40:35,118
absolutely yes it's the sort of the

898
00:40:32,989 --> 00:40:38,469

large bit of one of those old pins isn't

899

00:40:35,119 --> 00:40:41,150

it yeah pinhead yes indeed a hatpin

900

00:40:38,469 --> 00:40:43,400

modeling pinheaded you're smaller than a

901

00:40:41,150 --> 00:40:46,009

hatpin now does it say here how far

902

00:40:43,400 --> 00:40:49,039

we've come from the Sun six point nine

903

00:40:46,009 --> 00:40:51,978

kilometres on then we have a look down

904

00:40:49,039 --> 00:40:54,680

here distance to the certify okay so

905

00:40:51,978 --> 00:40:56,899

five point nine kilometres away is that

906

00:40:54,679 --> 00:40:59,088

large sphere we saw at the beginning of

907

00:40:56,900 --> 00:41:00,499

this trip imagine fella launched a

908

00:40:59,088 --> 00:41:02,900

rocket from the farm of the season

909

00:41:00,498 --> 00:41:06,379

moving side way that's extraordinary

910

00:41:02,900 --> 00:41:08,088

that's extraordinary oh that's a

911

00:41:06,380 --> 00:41:11,358

fantastic thing Steve how long is this

912

00:41:08,088 --> 00:41:14,420

solar system been here 20 years 20 years

913
00:41:11,358 --> 00:41:16,639
yes yeah 1990s so I don't know is it

914
00:41:14,420 --> 00:41:18,469
well known didn't it was at the time has

915
00:41:16,639 --> 00:41:24,228
been forgotten about did you all know

916
00:41:18,469 --> 00:41:25,579
about this or no yeah this is call me he

917
00:41:24,228 --> 00:41:31,038
appears how I never knew that was there

918
00:41:25,579 --> 00:41:33,048
yeah yeah well I think it's just it's

919
00:41:31,039 --> 00:41:36,319
just fantastic so if you come to

920
00:41:33,048 --> 00:41:38,929
Melbourne or you live in Melbourne come

921
00:41:36,318 --> 00:41:41,268
down and have a look at this because

922
00:41:38,929 --> 00:41:43,429
it's really gives you a good well some

923
00:41:41,268 --> 00:41:44,988
understanding at least as far as we can

924
00:41:43,429 --> 00:41:47,838
possibly comprehend the scale of things

925
00:41:44,989 --> 00:41:49,938
of the solar system and there will be a

926
00:41:47,838 --> 00:41:53,380
link on this week's show notes thank you

927
00:41:49,938 --> 00:41:53,379
Steve nope ontology

928
00:41:58,329 --> 00:42:21,949
[Music]

929
00:42:17,858 --> 00:42:25,009
dr. Harriet hall md no into thousands as

930
00:42:21,949 --> 00:42:28,129
the skeptic a retired family physician

931
00:42:25,010 --> 00:42:30,170
and former Air Force flight surgeon she

932
00:42:28,130 --> 00:42:31,900
writes about medicine so called

933
00:42:30,170 --> 00:42:35,769
complementary and alternative medicine

934
00:42:31,900 --> 00:42:38,840
science quackery and critical thinking

935
00:42:35,769 --> 00:42:41,300
Harriet now has a free course a series

936
00:42:38,840 --> 00:42:44,450
of ten video lectures on science based

937
00:42:41,300 --> 00:42:46,490
medicine and alternative medicine the

938
00:42:44,449 --> 00:42:48,589
videos and an accompanying course guide

939
00:42:46,489 --> 00:42:53,449
can be found by following the link at

940
00:42:48,590 --> 00:42:58,000
skeptic info or by visiting web Randy's

941

00:42:53,449 --> 00:43:01,809
org slash educational dash modules dot

942
00:42:58,000 --> 00:43:04,039
HTML topics covered in the series are

943
00:43:01,809 --> 00:43:07,150
science-based medicine vs.

944
00:43:04,039 --> 00:43:10,570
evidence-based medicine what is cam

945
00:43:07,150 --> 00:43:13,760
chiropractic acupuncture homeopathy

946
00:43:10,570 --> 00:43:15,890
naturopathy and herbal medicine energy

947
00:43:13,760 --> 00:43:19,070
medicine miscellaneous alternatives

948
00:43:15,889 --> 00:43:22,329
pitfalls in research and science-based

949
00:43:19,070 --> 00:43:25,130
medicine in the media and politics

950
00:43:22,329 --> 00:43:27,679
Harriet covers each topic in a matter of

951
00:43:25,130 --> 00:43:31,680
fact no-nonsense way that sure to

952
00:43:27,679 --> 00:43:51,509
educate and entertain skeptic dot info

953
00:43:31,679 --> 00:43:53,730
[Music]

954
00:43:51,510 --> 00:43:55,970
from the website of Australian skeptics

955
00:43:53,730 --> 00:43:58,769

Australian skeptics calm today you

956

00:43:55,969 --> 00:44:02,429
chiropractor found guilty of making

957

00:43:58,769 --> 00:44:04,289
false claims of curing cancer by Tim

958

00:44:02,429 --> 00:44:08,210
mendham published on the fifteenth of

959

00:44:04,289 --> 00:44:11,670
februari 2017 a new south wales

960

00:44:08,210 --> 00:44:14,190
chiropractor has been convicted of false

961

00:44:11,670 --> 00:44:17,460
advertising after he claimed to be able

962

00:44:14,190 --> 00:44:20,340
to prevent treat and cure cancer in his

963

00:44:17,460 --> 00:44:22,730
advertising handsome borrow who was

964

00:44:20,340 --> 00:44:25,920
sentenced today febr 15th at

965

00:44:22,730 --> 00:44:28,309
Downing Centre local court in Sydney now

966

00:44:25,920 --> 00:44:30,889
after he pleaded guilty to 13 charges

967

00:44:28,309 --> 00:44:35,909
filed by the Australian health

968

00:44:30,889 --> 00:44:39,029
practitioner regulation agency ahpra in

969

00:44:35,909 --> 00:44:42,269
August 2016 dr. Lim borough was

970
00:44:39,030 --> 00:44:44,730
convicted and fined twenty-nine thousand

971
00:44:42,269 --> 00:44:48,329
five hundred dollars by the court and

972
00:44:44,730 --> 00:44:51,329
was also ordered to pay the ahp Ras

973
00:44:48,329 --> 00:44:53,699
legal costs twenty seven thousand five

974
00:44:51,329 --> 00:44:56,340
hundred dollars of that fine was for

975
00:44:53,699 --> 00:44:58,799
advertising a health service in a false

976
00:44:56,340 --> 00:45:00,590
or misleading way the remaining two

977
00:44:58,800 --> 00:45:03,330
thousand dollars was for using

978
00:45:00,590 --> 00:45:06,210
testimonials in his advertising which is

979
00:45:03,329 --> 00:45:09,449
not permitted when advertising regulated

980
00:45:06,210 --> 00:45:12,420
health services limber o was convicted

981
00:45:09,449 --> 00:45:14,909
of unlawfully advertising a regulated

982
00:45:12,420 --> 00:45:17,940
health service and using testimonials

983
00:45:14,909 --> 00:45:20,429
under the national law chiropractic

984
00:45:17,940 --> 00:45:22,559
board of Australia chair Wayne Minter

985
00:45:20,429 --> 00:45:25,619
said the board welcomed the decision

986
00:45:22,559 --> 00:45:28,799
quote today's conviction is a win for

987
00:45:25,619 --> 00:45:30,809
public protection and a warning to

988
00:45:28,800 --> 00:45:33,450
anyone advertising health services in

989
00:45:30,809 --> 00:45:36,570
the way that contravenes the national

990
00:45:33,449 --> 00:45:39,119
law then quoted dr. Minter said he added

991
00:45:36,570 --> 00:45:41,670
quote most chiropractors are doing the

992
00:45:39,119 --> 00:45:44,099
right thing and quote however this view

993
00:45:41,670 --> 00:45:46,110
has been strongly refuted by a number of

994
00:45:44,099 --> 00:45:48,809
campaigners against chiropractors

995
00:45:46,110 --> 00:45:51,809
misleading advertising ken MacLeod said

996
00:45:48,809 --> 00:45:54,809
that he and Peter teeny had put in

997
00:45:51,809 --> 00:45:57,840
complaints against more than 700

998

00:45:54,809 --> 00:45:59,730
chiropractors professor Ken Harvey said

999
00:45:57,840 --> 00:46:01,950
that he and mel Vickers had put in

1000
00:45:59,730 --> 00:46:04,409
complaints against about 800

1001
00:46:01,949 --> 00:46:05,189
chiropractors and the Friends of Science

1002
00:46:04,409 --> 00:46:08,129
in medicine

1003
00:46:05,190 --> 00:46:13,500
have reportedly submitted complaints

1004
00:46:08,130 --> 00:46:15,690
against 1,200 chiropractors for many of

1005
00:46:13,500 --> 00:46:19,440
these cases McLeod says there has been

1006
00:46:15,690 --> 00:46:23,369
little or no response from the ahpra or

1007
00:46:19,440 --> 00:46:25,710
the CBA all of these campaigners have

1008
00:46:23,369 --> 00:46:27,900
been recipients of the skeptic of the

1009
00:46:25,710 --> 00:46:30,809
Year award over the past few years

1010
00:46:27,900 --> 00:46:33,119
McLeod added that his studies revealed

1011
00:46:30,809 --> 00:46:35,519
that about two-thirds of chiropractors

1012
00:46:33,119 --> 00:46:38,550

have also expressed or promoted

1013

00:46:35,519 --> 00:46:40,230
anti-vaccination views he says that in

1014

00:46:38,550 --> 00:46:42,599
discussions with the UK campaigner

1015

00:46:40,230 --> 00:46:45,568
professor Ed's art Ernst there is a

1016

00:46:42,599 --> 00:46:47,280
similar situation in the UK it is known

1017

00:46:45,568 --> 00:46:50,429
that about eight other chiropractors are

1018

00:46:47,280 --> 00:46:53,609
currently in the pipeline to be brought

1019

00:46:50,429 --> 00:46:55,078
before the courts minta said quote the

1020

00:46:53,608 --> 00:46:57,420
board has been upfront with the

1021

00:46:55,079 --> 00:47:00,390
profession that if their advertising is

1022

00:46:57,420 --> 00:47:03,420
not compliant with the law they will be

1023

00:47:00,389 --> 00:47:06,328
held to account end quote the hundreds

1024

00:47:03,420 --> 00:47:11,280
of existing complaints will put that aim

1025

00:47:06,329 --> 00:47:14,339
under pressure ahpra CEO Martin Fletcher

1026

00:47:11,280 --> 00:47:16,740
said the outcome sent an important

1027
00:47:14,338 --> 00:47:19,289
message to anyone who advertises a

1028
00:47:16,739 --> 00:47:21,568
regulated health service that the

1029
00:47:19,289 --> 00:47:24,539
regulator will take action if they break

1030
00:47:21,568 --> 00:47:28,050
the law quote today's conviction is a

1031
00:47:24,539 --> 00:47:29,789
landmark ruling our purpose working

1032
00:47:28,050 --> 00:47:32,400
closely with the chiropractic board of

1033
00:47:29,789 --> 00:47:35,190
Australia is to protect the public this

1034
00:47:32,400 --> 00:47:38,400
shows that we will take action and that

1035
00:47:35,190 --> 00:47:40,980
people breaking the law will be held to

1036
00:47:38,400 --> 00:47:42,838
account making false claims to treat

1037
00:47:40,980 --> 00:47:46,219
serious illnesses through unproven

1038
00:47:42,838 --> 00:47:49,349
methods is both unethical and illegal

1039
00:47:46,219 --> 00:47:51,629
with her ruling magistrate Vinnie said

1040
00:47:49,349 --> 00:47:53,700
that while the practitioner personally

1041
00:47:51,630 --> 00:47:56,190
may not have loaded the advertising on

1042
00:47:53,699 --> 00:47:59,129
to the website in question he could not

1043
00:47:56,190 --> 00:48:01,559
deny responsibility this is an important

1044
00:47:59,130 --> 00:48:04,530
lesson for others who are advertising

1045
00:48:01,559 --> 00:48:06,869
regulated health services quote today's

1046
00:48:04,530 --> 00:48:10,619
outcome is a reminder to us all as

1047
00:48:06,869 --> 00:48:12,539
health consumers and patients that if an

1048
00:48:10,619 --> 00:48:15,990
advertisement seems too good to be true

1049
00:48:12,539 --> 00:48:18,029
it probably is make sure you ask your

1050
00:48:15,989 --> 00:48:18,778
health practitioner what evidence they

1051
00:48:18,030 --> 00:48:20,929
have to

1052
00:48:18,778 --> 00:48:24,088
these claims and if you're still unsure

1053
00:48:20,929 --> 00:48:27,659
seek a second opinion in quote Fletcher

1054
00:48:24,088 --> 00:48:29,489
said ahpra and 14 national boards that

1055

00:48:27,659 --> 00:48:32,338
regulate Australia's registered health

1056
00:48:29,489 --> 00:48:35,219
workforce have published guidelines on

1057
00:48:32,338 --> 00:48:37,679
advertising regulated health services to

1058
00:48:35,219 --> 00:48:39,269
help health practitioners and service

1059
00:48:37,679 --> 00:48:41,699
providers know their obligations under

1060
00:48:39,268 --> 00:48:44,488
the national law along with additional

1061
00:48:41,699 --> 00:48:47,548
resources to help understand the do's

1062
00:48:44,489 --> 00:48:49,259
and don'ts of advertising anyone with

1063
00:48:47,548 --> 00:48:51,688
concerns about the advertising of

1064
00:48:49,259 --> 00:49:01,048
regulated health services should contact

1065
00:48:51,688 --> 00:49:02,428
the ahpra on 1300 419 459 and that story

1066
00:49:01,048 --> 00:49:04,650
comes to us from the website of

1067
00:49:02,429 --> 00:49:07,709
Australian skeptics skeptics calm today

1068
00:49:04,650 --> 00:49:10,949
you compiled by Tim mendham and now

1069
00:49:07,708 --> 00:49:13,498

courtesy of the nine network news here

1070

00:49:10,949 --> 00:49:15,900

is a brief report on the chiropractor in

1071

00:49:13,498 --> 00:49:17,748

question have you got anything you'd

1072

00:49:15,900 --> 00:49:21,298

like to say disgraced in a courtroom

1073

00:49:17,748 --> 00:49:23,668

Islamic chiropractor dr. Han slim Bora

1074

00:49:21,298 --> 00:49:25,739

made a run for it but there was no

1075

00:49:23,668 --> 00:49:28,558

dodging the truth that he falsely

1076

00:49:25,739 --> 00:49:30,539

claimed he could cure cancer mr. Barrett

1077

00:49:28,559 --> 00:49:33,089

do you think you're going to continue as

1078

00:49:30,539 --> 00:49:35,849

a chiropractor it's a huge ball from

1079

00:49:33,088 --> 00:49:38,639

grace for a man with many hats he's on

1080

00:49:35,849 --> 00:49:40,349

YouTube telling us how to make money I'm

1081

00:49:38,639 --> 00:49:42,629

going to go where teach you how to join

1082

00:49:40,349 --> 00:49:45,359

about a hundred thousand dollars of

1083

00:49:42,630 --> 00:49:47,459

passive income a year and on the

1084
00:49:45,358 --> 00:49:50,009
internet is being rated as one of the

1085
00:49:47,458 --> 00:49:52,278
three best chiropractors in Sydney and

1086
00:49:50,009 --> 00:49:55,708
on web pages advertising his services

1087
00:49:52,278 --> 00:49:58,469
it's claimed having a regular visit to a

1088
00:49:55,708 --> 00:50:01,018
chiropractor people can rest assured

1089
00:49:58,469 --> 00:50:04,048
they're prevented from having cancer and

1090
00:50:01,018 --> 00:50:06,958
there's more and natural cancer cure is

1091
00:50:04,048 --> 00:50:10,349
chiropractic treatment the only problem

1092
00:50:06,958 --> 00:50:12,629
is it's not true dr. Limbaugh promoted

1093
00:50:10,349 --> 00:50:14,249
his treatment as an alternative to other

1094
00:50:12,630 --> 00:50:17,579
life-saving measures such as

1095
00:50:14,248 --> 00:50:19,498
chemotherapy and radiation the court was

1096
00:50:17,579 --> 00:50:21,209
told that any of his patients who

1097
00:50:19,498 --> 00:50:23,728
ignored those tried and tested

1098
00:50:21,208 --> 00:50:26,308
treatments could have made a fatal

1099
00:50:23,728 --> 00:50:28,939
mistake in a landmark case but

1100
00:50:26,309 --> 00:50:31,190
regulators pursued him borrow

1101
00:50:28,940 --> 00:50:33,679
what a magistrate found were outrageous

1102
00:50:31,190 --> 00:50:36,710
claims targeting the most vulnerable

1103
00:50:33,679 --> 00:50:38,989
with a cure or a fix these meant to be

1104
00:50:36,710 --> 00:50:40,369
highly trained health professionals but

1105
00:50:38,989 --> 00:50:41,750
this one in particular has been

1106
00:50:40,369 --> 00:50:44,329
misleading the public and I suspect

1107
00:50:41,750 --> 00:50:46,460
there's more libero who is fine nearly

1108
00:50:44,329 --> 00:50:49,068
thirty thousand dollars and it will be

1109
00:50:46,460 --> 00:50:52,039
up to the chiropractic board to decide

1110
00:50:49,068 --> 00:50:58,420
if he stays in the profession Damien

1111
00:50:52,039 --> 00:50:58,420
Ryan 99 years city's number one

1112

00:50:59,869 --> 00:51:06,930
this is indeed a landmark judgment

1113
00:51:03,230 --> 00:51:09,059
landmark ruling I can imagine it will

1114
00:51:06,929 --> 00:51:11,608
put many chiropractors on notice but not

1115
00:51:09,059 --> 00:51:13,589
only chiropractors all the people out

1116
00:51:11,608 --> 00:51:16,730
there all the health care providers

1117
00:51:13,588 --> 00:51:20,400
so-called health care providers who

1118
00:51:16,730 --> 00:51:23,309
advertise the extraordinary things they

1119
00:51:20,400 --> 00:51:26,869
can do the claims that they make I think

1120
00:51:23,309 --> 00:51:26,869
this puts them all on notice

1121
00:51:28,369 --> 00:51:31,549
[Music]

1122
00:51:34,539 --> 00:51:42,918
you

1123
00:51:35,280 --> 00:51:42,919
[Music]

1124
00:51:48,719 --> 00:51:53,259
I'm here with an old friend of mine the

1125
00:51:51,188 --> 00:51:55,568
lone deranged ER herself lindley hello

1126
00:51:53,259 --> 00:51:57,778

hello how are you know we've known each

1127

00:51:55,568 --> 00:52:00,248

other for many years now you're I

1128

00:51:57,778 --> 00:52:01,929

remember the first time you came around

1129

00:52:00,248 --> 00:52:04,088

to visit dr. Steve Roberts and we were

1130

00:52:01,929 --> 00:52:06,489

watching UFO documents do you remember

1131

00:52:04,088 --> 00:52:08,949

that was good and I remember Stevie put

1132

00:52:06,489 --> 00:52:10,509

two like pet pita bread things on the

1133

00:52:08,949 --> 00:52:13,778

side of his head to make him look so

1134

00:52:10,509 --> 00:52:15,400

look like Mickey Mouse that's Steve for

1135

00:52:13,778 --> 00:52:19,059

you now folks are having a quick chat

1136

00:52:15,400 --> 00:52:21,219

with them lindley because you have a new

1137

00:52:19,059 --> 00:52:22,749

podcast and of course as a friend of

1138

00:52:21,219 --> 00:52:24,548

mine and somebody who likes podcast I

1139

00:52:22,748 --> 00:52:27,159

like to promote podcasts what's your

1140

00:52:24,548 --> 00:52:28,958

podcast all about it's just me spinnin

1141
00:52:27,159 --> 00:52:30,788
records I've got so many records I

1142
00:52:28,958 --> 00:52:32,828
thought and I don't have anyone to share

1143
00:52:30,789 --> 00:52:34,959
them with besides my cat I thought why

1144
00:52:32,829 --> 00:52:37,509
not just put them out on the air and

1145
00:52:34,958 --> 00:52:39,958
yeah and learn some djing skills at the

1146
00:52:37,509 --> 00:52:43,329
same time so I just set it up no age no

1147
00:52:39,958 --> 00:52:46,268
no education no nothing youtube video

1148
00:52:43,329 --> 00:52:49,109
clips and bang three episodes fourth

1149
00:52:46,268 --> 00:52:51,518
episode is recorded and it will come out

1150
00:52:49,108 --> 00:52:53,798
well it'll be out when you listen to

1151
00:52:51,518 --> 00:52:56,828
this excellent so basically you thought

1152
00:52:53,798 --> 00:52:59,498
I'll do this I can do I can do this you

1153
00:52:56,829 --> 00:53:00,999
use audacity I believe yeah and you do

1154
00:52:59,498 --> 00:53:03,548
the mixing you put the podcast together

1155
00:53:00,998 --> 00:53:06,428
and all the rest of it so folks you know

1156
00:53:03,548 --> 00:53:07,630
if you want to do a podcast there's

1157
00:53:06,429 --> 00:53:09,699
nothing stopping you is there no

1158
00:53:07,630 --> 00:53:11,769
definitely not is this bang straight

1159
00:53:09,699 --> 00:53:15,338
easy I thought it would be more

1160
00:53:11,768 --> 00:53:18,188
difficult than what it was but yeah

1161
00:53:15,338 --> 00:53:20,708
pretty good good stuff and it's called

1162
00:53:18,188 --> 00:53:22,298
running with scissors what why running

1163
00:53:20,708 --> 00:53:24,338
with scissors oh there was a discussion

1164
00:53:22,298 --> 00:53:26,768
at work to posties we're talking about

1165
00:53:24,338 --> 00:53:29,639
if they'd ever seen anyone in hospital

1166
00:53:26,768 --> 00:53:32,258
with injuries from running with scissors

1167
00:53:29,639 --> 00:53:33,639
and at that time I was sort of coming

1168
00:53:32,259 --> 00:53:35,039
and airing about the show and I heard

1169

00:53:33,639 --> 00:53:38,679
the name and I said perfect that's

1170
00:53:35,039 --> 00:53:42,130
you've just named my show and vow

1171
00:53:38,679 --> 00:53:44,559
international listeners postie you

1172
00:53:42,130 --> 00:53:45,789
deliver the post yeah yeah and as we sit

1173
00:53:44,559 --> 00:53:47,499
here now having a nice time so you've

1174
00:53:45,789 --> 00:53:49,839
got right now crossed your chest you've

1175
00:53:47,498 --> 00:53:50,959
got straight Australia Post and blaze in

1176
00:53:49,838 --> 00:53:53,090
there like that

1177
00:53:50,960 --> 00:53:55,010
and what is your taste in music what if

1178
00:53:53,090 --> 00:53:56,420
people listen Google running with

1179
00:53:55,010 --> 00:53:58,130
scissors podcast but what's the music

1180
00:53:56,420 --> 00:54:04,220
might they hear you'll be getting a lot

1181
00:53:58,130 --> 00:54:07,400
of 80s punk new wave post-punk all the

1182
00:54:04,219 --> 00:54:09,889
all the no waves new wave no way there's

1183
00:54:07,400 --> 00:54:13,010

lots of waves there's so many waves in

1184

00:54:09,889 --> 00:54:14,929
music industrial all it all the noise

1185

00:54:13,010 --> 00:54:17,360
anyway and I'll be playing a lot of

1186

00:54:14,929 --> 00:54:18,799
local Australian bands that I like so I

1187

00:54:17,360 --> 00:54:21,500
just want to keep promoting Australian

1188

00:54:18,800 --> 00:54:23,960
music as much as I can this it doesn't

1189

00:54:21,500 --> 00:54:26,150
get much airtime yeah sir yeah

1190

00:54:23,960 --> 00:54:28,400
definitely got a fun congratulations

1191

00:54:26,150 --> 00:54:29,840
folks running with scissors that's the

1192

00:54:28,400 --> 00:54:32,660
name of the podcast check it out and

1193

00:54:29,840 --> 00:54:34,850
you'll find a link on this week's show

1194

00:54:32,659 --> 00:54:37,429
notes and good luck you'll find it on

1195

00:54:34,849 --> 00:54:43,279
mixcloud and just type in running with

1196

00:54:37,429 --> 00:54:47,529
scissors mixcloud com / loan underscored

1197

00:54:43,280 --> 00:54:47,530
arranger something like that yeah

1198
00:54:53,929 --> 00:55:12,779
[Music]

1199
00:55:08,539 --> 00:55:16,680
and now a special note for fans of

1200
00:55:12,780 --> 00:55:20,099
Maynard at Maynard com got a you if you

1201
00:55:16,679 --> 00:55:23,429
head over there now me naw Kham today

1202
00:55:20,099 --> 00:55:26,160
you you can download the 2017 mean and

1203
00:55:23,429 --> 00:55:31,230
calendar print it out and whack it on

1204
00:55:26,159 --> 00:55:35,879
the wall spend 2017 with me nerd that's

1205
00:55:31,230 --> 00:55:39,340
me not calm da to you for your free mean

1206
00:55:35,880 --> 00:55:54,709
hun 2017 calendar

1207
00:55:39,340 --> 00:55:54,709
[Music]

1208
00:55:59,869 --> 00:56:03,480
thank you for listening to the skeptic

1209
00:56:02,190 --> 00:56:05,700
zone now next week I think we have

1210
00:56:03,480 --> 00:56:09,780
another report about them situation on

1211
00:56:05,699 --> 00:56:11,730
the movie vax and the news that robert

1212
00:56:09,780 --> 00:56:14,310
de niro the actor robert de niro a fine

1213
00:56:11,730 --> 00:56:17,909
actor a wonderful actor i do enjoy his

1214
00:56:14,309 --> 00:56:21,210
movies is now becoming involved in some

1215
00:56:17,909 --> 00:56:23,940
shape or form with the publicity or the

1216
00:56:21,210 --> 00:56:26,190
concerns around this movie we'll keep

1217
00:56:23,940 --> 00:56:28,980
you up to date on that story next week I

1218
00:56:26,190 --> 00:56:30,929
know my friend Fiona O'Leary and ireland

1219
00:56:28,980 --> 00:56:33,240
is very concerned about recent

1220
00:56:30,929 --> 00:56:34,980
developments thank you to those people

1221
00:56:33,239 --> 00:56:37,439
who continue after all these years to

1222
00:56:34,980 --> 00:56:40,679
support the skeptic zone at skeptics on

1223
00:56:37,440 --> 00:56:42,329
TV with your little micro payments and

1224
00:56:40,679 --> 00:56:44,669
some people even chip in a bit more and

1225
00:56:42,329 --> 00:56:47,819
it all adds up it's wonderful it's like

1226

00:56:44,670 --> 00:56:50,430
lots of little drops going into a into a

1227
00:56:47,820 --> 00:56:53,039
glass of water it's great thank you so

1228
00:56:50,429 --> 00:56:55,589
much for supporting the skeptic zone in

1229
00:56:53,039 --> 00:56:58,349
that way thank you to the people who

1230
00:56:55,590 --> 00:56:59,760
write to me saying how they how much

1231
00:56:58,349 --> 00:57:02,519
they enjoy the show and what they're

1232
00:56:59,760 --> 00:57:04,890
doing some people are mowing the lawn

1233
00:57:02,519 --> 00:57:06,480
are going for runs or riding bikes as we

1234
00:57:04,889 --> 00:57:08,219
were mentioning earlier before riding

1235
00:57:06,480 --> 00:57:10,530
bikes listening to the skeptic zone on

1236
00:57:08,219 --> 00:57:12,779
their commute to work or whatever they

1237
00:57:10,530 --> 00:57:14,370
happen to be doing and I know some

1238
00:57:12,780 --> 00:57:17,400
people like to listen to the skeptic

1239
00:57:14,369 --> 00:57:19,079
sound on long drives in the car and I

1240
00:57:17,400 --> 00:57:21,030

must give a shout out to listen to Jake

1241
00:57:19,079 --> 00:57:24,329
Jake to lure low who also wrote to me

1242
00:57:21,030 --> 00:57:26,640
last week saying that the collective

1243
00:57:24,329 --> 00:57:28,710
noun for a group of quacks should be an

1244
00:57:26,639 --> 00:57:30,659
aerco their neck o of quacks I think

1245
00:57:28,710 --> 00:57:32,670
actually Jake when I look through the

1246
00:57:30,659 --> 00:57:34,559
list of Correspondence I think he got

1247
00:57:32,670 --> 00:57:37,680
there first to let me know that that's

1248
00:57:34,559 --> 00:57:39,929
what we should call a a group of quacks

1249
00:57:37,679 --> 00:57:41,609
and echo I do like that so thanks Jake

1250
00:57:39,929 --> 00:57:43,829
thank you very much and thanks for

1251
00:57:41,610 --> 00:57:46,019
listening to but for this week from

1252
00:57:43,829 --> 00:57:47,969
beautiful melbourne with lots of weird

1253
00:57:46,019 --> 00:57:49,949
noises going around here in this house

1254
00:57:47,969 --> 00:57:51,929
there is water in the pipes running

1255
00:57:49,949 --> 00:57:53,939
through and workmen next to or

1256
00:57:51,929 --> 00:57:55,829
renovating a house the planes flying

1257
00:57:53,940 --> 00:57:59,190
overhead as i think there's a cat here

1258
00:57:55,829 --> 00:58:00,659
to walks by occasionally oh it's all

1259
00:57:59,190 --> 00:58:03,570
happening here in melbourne until next

1260
00:58:00,659 --> 00:58:05,690
week this is Richard Saunders signing

1261
00:58:03,570 --> 00:58:05,690
off

1262
00:58:07,670 --> 00:58:13,829
you've been listening to the skeptics

1263
00:58:10,079 --> 00:58:16,799
own podcast visit our website at WCA

1264
00:58:13,829 --> 00:58:20,699
pegs on TV for contacts and archive of

1265
00:58:16,800 --> 00:58:23,340
all episodes since 2008 and our online

1266
00:58:20,699 --> 00:58:26,059
store please support the skeptic zone by

1267
00:58:23,340 --> 00:58:29,070
following us on twitter at skeptic zone

1268
00:58:26,059 --> 00:58:32,130
liking us on facebook and leaving a

1269
00:58:29,070 --> 00:58:35,010
review on iTunes you can also show your

1270
00:58:32,130 --> 00:58:38,460
support by subscribing via PayPal or as

1271
00:58:35,010 --> 00:58:40,830
little as 99 cents a week the skeptic

1272
00:58:38,460 --> 00:58:42,510
zone is an independent production the

1273
00:58:40,829 --> 00:58:44,610
views and opinions expressed on the

1274
00:58:42,510 --> 00:58:47,300
skeptic zone and not necessarily those

1275
00:58:44,610 --> 00:58:51,110
of Australian skeptics or any other

1276
00:58:47,300 --> 00:58:51,110
skeptical organization