

1
00:00:06,150 --> 00:00:13,699
welcome to the skeptic zone the podcast

2
00:00:09,119 --> 00:00:13,699
from Australia for science and reason

3
00:00:22,739 --> 00:00:29,429
hello and welcome to the skeptics own

4
00:00:25,390 --> 00:00:32,739
episode number 335 for the 22nd of March

5
00:00:29,429 --> 00:00:35,200
2015 Richard Saunders here with you from

6
00:00:32,738 --> 00:00:37,539
Sydney Australia what's coming up on

7
00:00:35,200 --> 00:00:39,309
this week's episode of the skeptic zone

8
00:00:37,539 --> 00:00:42,070
we've got evidence please with Joe

9
00:00:39,308 --> 00:00:44,049
alabaster and this week Joe's going to

10
00:00:42,070 --> 00:00:47,878
be looking at some well interesting

11
00:00:44,049 --> 00:00:50,530
shops in the Sydney suburb of Newtown

12
00:00:47,878 --> 00:00:52,808
interesting indeed there are some signs

13
00:00:50,530 --> 00:00:55,420
posting the window of some shops we

14
00:00:52,808 --> 00:00:57,669
might call them new ad shops which makes

15
00:00:55,420 --> 00:00:59,800
some pretty extraordinary claims Joe's

16
00:00:57,670 --> 00:01:01,689
going to be reading out those claims and

17
00:00:59,799 --> 00:01:03,849
with the help of me and chief

18
00:01:01,689 --> 00:01:06,759
investigator from Australia skeptics Ian

19
00:01:03,850 --> 00:01:09,640
Bryce we're going to be dissecting some

20
00:01:06,759 --> 00:01:11,459
of the claims made on the sides in the

21
00:01:09,640 --> 00:01:14,289
windows of the shops in Newtown

22
00:01:11,459 --> 00:01:16,269
interpreting new-age signs coming up at

23
00:01:14,289 --> 00:01:17,799
the top of the show then it's a week in

24
00:01:16,269 --> 00:01:20,769
signs from our good friends at the Royal

25
00:01:17,799 --> 00:01:22,840
Institution of Australia and following

26
00:01:20,769 --> 00:01:25,750
that it's Heidi Robinson with the raw

27
00:01:22,840 --> 00:01:28,600
skeptical report and Heidi reports this

28
00:01:25,750 --> 00:01:30,879
week on the sad news of a baby dying of

29

00:01:28,599 --> 00:01:33,280
whooping cough in Australia in this day

30
00:01:30,879 --> 00:01:35,649
and age it's it's tragic and so

31
00:01:33,280 --> 00:01:37,299
unnecessary and also an important

32
00:01:35,649 --> 00:01:39,819
announcement on vaccinations from the

33
00:01:37,299 --> 00:01:41,890
New South Wales Government now here's an

34
00:01:39,819 --> 00:01:44,978
important announcement for those people

35
00:01:41,890 --> 00:01:47,409
living in Sydney you can meet me and Joe

36
00:01:44,978 --> 00:01:51,069
alabaster and we'll try and encourage

37
00:01:47,409 --> 00:01:53,859
Maynard to come along as well that will

38
00:01:51,069 --> 00:01:57,759
be at the Australian skeptics dinner

39
00:01:53,859 --> 00:01:59,739
meeting medical madness and embarrassing

40
00:01:57,759 --> 00:02:02,799
bodies you've heard him on the skeptic

41
00:01:59,739 --> 00:02:04,618
zone it's dr. Brad Makai and this will

42
00:02:02,799 --> 00:02:08,439
be the right Eastwood Leagues Club

43
00:02:04,618 --> 00:02:10,780

Saturday March to 28 so that's a your

44

00:02:08,439 --> 00:02:13,120

this Saturday coming but the deadline

45

00:02:10,780 --> 00:02:14,949

for getting your tickets is Wednesday

46

00:02:13,120 --> 00:02:16,719

the 25th of March so this coming

47

00:02:14,949 --> 00:02:20,649

Wednesday you have to be quick bookings

48

00:02:16,719 --> 00:02:23,409

are essential at ww skeptics Comte you

49

00:02:20,650 --> 00:02:27,099

and this promises to be one of the more

50

00:02:23,409 --> 00:02:29,680

interesting of our dinner meetings this

51

00:02:27,098 --> 00:02:32,649

year hope to see you there Sydney people

52

00:02:29,680 --> 00:02:33,500

go to skeptics calm today you / shop or

53

00:02:32,650 --> 00:02:35,990

just skeptics

54

00:02:33,500 --> 00:02:38,000

comdata you for more information and get

55

00:02:35,990 --> 00:02:39,920

your tickets there'll be a lucky door

56

00:02:38,000 --> 00:02:43,490

prize one person will have their dinner

57

00:02:39,919 --> 00:02:45,889

fee reimbursed I think we pull that out

58
00:02:43,490 --> 00:02:47,270
of that or something anyway I hope to

59
00:02:45,889 --> 00:02:49,489
see you there and if you do come along

60
00:02:47,270 --> 00:02:51,590
come up and say hello who knows you

61
00:02:49,490 --> 00:02:53,959
might even be interviewed for the

62
00:02:51,590 --> 00:02:55,580
skeptic zone but now it's time for me to

63
00:02:53,959 --> 00:03:00,289
not run downstairs because here I am

64
00:02:55,580 --> 00:03:06,590
downstairs already enjoying a nice big

65
00:03:00,289 --> 00:03:10,659
glass mmm of raspberry cordial with ice

66
00:03:06,590 --> 00:03:13,489
because that's still muggy in Sydney

67
00:03:10,659 --> 00:03:18,699
while I'm enjoying my raspberry cordial

68
00:03:13,489 --> 00:03:18,700
with ice I hope you enjoy the skeptics

69
00:03:34,318 --> 00:03:42,259
what we want is some more evidence

70
00:03:36,539 --> 00:03:42,259
please is Joe alabaster

71
00:03:43,709 --> 00:03:48,239
hello this is Joe alabaster

72
00:03:49,789 --> 00:03:54,748
there's an inner-city suburb in Sydney

73
00:03:52,530 --> 00:03:57,150
called Newtown which is a fantastic

74
00:03:54,748 --> 00:03:59,009
place to spend a few hours wandering up

75
00:03:57,150 --> 00:04:01,200
and down the Main Street looking at

76
00:03:59,009 --> 00:04:04,348
shops and stopping for a coffee or a

77
00:04:01,199 --> 00:04:08,608
snack Newtown is around 4 kilometers

78
00:04:04,348 --> 00:04:11,339
southwest of the Sydney CBD in the 1960s

79
00:04:08,609 --> 00:04:13,590
and 70s affordable share housing and the

80
00:04:11,340 --> 00:04:15,959
suburbs close proximity to the city in

81
00:04:13,590 --> 00:04:18,329
universities during a large student

82
00:04:15,959 --> 00:04:20,280
population and Newton became something

83
00:04:18,329 --> 00:04:22,788
of a bohemian center with a thriving

84
00:04:20,279 --> 00:04:25,258
cafe and live entertainment culture

85
00:04:22,788 --> 00:04:28,439
currently and more Road and King Street

86

00:04:25,259 --> 00:04:30,240
hosts over 600 shop fronts and some of

87
00:04:28,439 --> 00:04:32,399
the retailers who have set up in the

88
00:04:30,240 --> 00:04:35,699
area make some rather questionable

89
00:04:32,399 --> 00:04:38,339
claims the skeptic zone took a walk down

90
00:04:35,699 --> 00:04:41,340
King Street Newtown and in the window of

91
00:04:38,339 --> 00:04:46,409
a new age shop noticed this sign about a

92
00:04:41,339 --> 00:04:48,538
crystal bed energy vibration medicine is

93
00:04:46,410 --> 00:04:51,990
fast becoming a very popular alternative

94
00:04:48,538 --> 00:04:54,569
healing therapy it is the medicine of

95
00:04:51,990 --> 00:04:57,030
the future the crystal light bed

96
00:04:54,569 --> 00:04:59,519
modality is the ultimate life enhancing

97
00:04:57,029 --> 00:05:02,339
experience because of the profound work

98
00:04:59,519 --> 00:05:04,439
being done on all levels of the body the

99
00:05:02,339 --> 00:05:07,888
benefits outweigh many other healing

100
00:05:04,439 --> 00:05:10,168

therapies available today it combines

101

00:05:07,889 --> 00:05:13,228

the power of colour and crystal light

102

00:05:10,168 --> 00:05:15,629

frequencies using an array of specially

103

00:05:13,228 --> 00:05:18,060

cut and lighted quartz crystals and

104

00:05:15,629 --> 00:05:20,879

involves the application of light beamed

105

00:05:18,060 --> 00:05:23,098

through a lamp the advantages and

106

00:05:20,879 --> 00:05:27,029

effects of this therapy are clarified

107

00:05:23,098 --> 00:05:29,279

further on crystals are capable of

108

00:05:27,029 --> 00:05:32,399

transmitting storing and modulating

109

00:05:29,279 --> 00:05:35,069

energy the highly organized state of the

110

00:05:32,399 --> 00:05:37,319

quartz crystals allow photons to move

111

00:05:35,069 --> 00:05:41,129

without being trapped and condensed as

112

00:05:37,319 --> 00:05:44,250

in other forms of matter crystals are a

113

00:05:41,129 --> 00:05:46,288

primary source of natural healing due to

114

00:05:44,250 --> 00:05:48,449

their symmetrical molecular structure

115
00:05:46,288 --> 00:05:51,718
and their effect on the chromatic

116
00:05:48,449 --> 00:05:54,419
composition of light the vibration of

117
00:05:51,718 --> 00:05:56,519
the crystals resonating and energizing

118
00:05:54,418 --> 00:05:59,598
the sixty to ninety percent of water in

119
00:05:56,519 --> 00:06:03,299
our bodies has a profound healing effect

120
00:05:59,598 --> 00:06:05,819
dr. masaru emoto a visionary

121
00:06:03,300 --> 00:06:08,220
his researcher in his book the message

122
00:06:05,819 --> 00:06:11,129
from water speaks of the positive and

123
00:06:08,220 --> 00:06:15,539
negative and the science stops right

124
00:06:11,129 --> 00:06:17,430
there mid sentence huh now I've got a

125
00:06:15,538 --> 00:06:19,110
special guest on evidence place to

126
00:06:17,430 --> 00:06:22,620
discuss this crystal business further

127
00:06:19,110 --> 00:06:25,080
it's Richard Saunders well thank you Joe

128
00:06:22,620 --> 00:06:28,050
alabaster for that reading out of that

129
00:06:25,079 --> 00:06:30,300
interesting sign in the window there in

130
00:06:28,050 --> 00:06:31,919
the New Age shop in Newtown I'm with Ian

131
00:06:30,300 --> 00:06:33,629
Bryce the chief investigator of

132
00:06:31,918 --> 00:06:36,269
Australian skeptics now Ian you've had a

133
00:06:33,629 --> 00:06:40,530
read of that or a look at the the the

134
00:06:36,269 --> 00:06:43,769
sign in the window all to do with a ah a

135
00:06:40,529 --> 00:06:46,619
crystal bed an energy crystal bed that's

136
00:06:43,769 --> 00:06:48,120
right yes Richard I was trying to find

137
00:06:46,620 --> 00:06:51,598
something in it that I could hang my hat

138
00:06:48,120 --> 00:06:53,550
on set to attack but it's all a bit

139
00:06:51,598 --> 00:06:55,680
wishy-washy so said I thought I tell you

140
00:06:53,550 --> 00:06:57,449
a bit about crystals and other objects

141
00:06:55,680 --> 00:06:59,639
yeah because this what we just heard

142
00:06:57,449 --> 00:07:01,259
from Joe alabaster talks about for

143

00:06:59,639 --> 00:07:03,538
example crystals are capable of

144
00:07:01,259 --> 00:07:05,639
transmitting storing and modulating

145
00:07:03,538 --> 00:07:08,908
energy the highly organized state of the

146
00:07:05,639 --> 00:07:11,848
quartz crystals allow photons to move up

147
00:07:08,908 --> 00:07:14,129
being trapped and condensed no dear and

148
00:07:11,848 --> 00:07:16,199
so or photons what can you tell us about

149
00:07:14,129 --> 00:07:19,139
crystals and well i have here Richard

150
00:07:16,199 --> 00:07:20,759
yeah a rock yeah and a crystal oh yeah

151
00:07:19,139 --> 00:07:21,990
this'll can see you since it so I

152
00:07:20,759 --> 00:07:24,479
thought I tell you a bit about physical

153
00:07:21,990 --> 00:07:26,218
properties to go back to that's what

154
00:07:24,478 --> 00:07:28,228
they sound like me Michael bit fell off

155
00:07:26,218 --> 00:07:31,019
sorry good Phillip if it stops working

156
00:07:28,228 --> 00:07:33,000
there and as you can see I can I can put

157
00:07:31,019 --> 00:07:35,218

them on these scales oh yes and weigh

158

00:07:33,000 --> 00:07:38,158

them lift up the microphone indeed yes

159

00:07:35,218 --> 00:07:43,680

so we find that the rock weighs having

160

00:07:38,158 --> 00:07:46,228

12 grams and the crystal weighs 150

161

00:07:43,680 --> 00:07:47,908

grams right nearly the same so that's a

162

00:07:46,228 --> 00:07:50,579

basic physical property that everything

163

00:07:47,908 --> 00:07:52,319

has and other things they have is length

164

00:07:50,579 --> 00:07:54,508

and dimensions for example I can use

165

00:07:52,319 --> 00:07:55,710

these calipers to measure the length the

166

00:07:54,509 --> 00:07:57,658

length and the height and the width of

167

00:07:55,709 --> 00:07:59,430

the rock yes the crystal and but they're

168

00:07:57,658 --> 00:08:01,019

simple physical properties yeah it's a

169

00:07:59,430 --> 00:08:03,478

lovely it's like a little cluster of

170

00:08:01,019 --> 00:08:07,769

what's the crystal is that there's sort

171

00:08:03,478 --> 00:08:11,550

of a almost looks like amber in color

172
00:08:07,769 --> 00:08:14,668
yes I'm not sure quite what ones that is

173
00:08:11,550 --> 00:08:16,699
amethyst is very popular but but I think

174
00:08:14,668 --> 00:08:19,399
that's more purpley I think

175
00:08:16,699 --> 00:08:21,319
around 20 yeah it's got many is that

176
00:08:19,399 --> 00:08:22,909
what five centimeters across by about

177
00:08:21,319 --> 00:08:25,459
three centimeters tall it's just like a

178
00:08:22,910 --> 00:08:27,710
cluster of christian yes and some people

179
00:08:25,459 --> 00:08:29,359
many people in fact claim healing

180
00:08:27,709 --> 00:08:30,769
properties for them so that's what we're

181
00:08:29,360 --> 00:08:32,300
here to talk about are a physical

182
00:08:30,769 --> 00:08:35,000
properties everything has physical

183
00:08:32,299 --> 00:08:37,459
properties and are they magic of course

184
00:08:35,000 --> 00:08:38,899
not in fact this piece of rock if you

185
00:08:37,460 --> 00:08:41,780
look at azeri microscope you'll find us

186
00:08:38,899 --> 00:08:43,279
has many fine grain crystals inside it

187
00:08:41,779 --> 00:08:44,689
right when I think as you can't see it

188
00:08:43,279 --> 00:08:46,339
without an instrument so I think it's

189
00:08:44,690 --> 00:08:47,840
different from the rock so there's

190
00:08:46,340 --> 00:08:50,389
nothing that the crystals going to do

191
00:08:47,840 --> 00:08:51,830
that the rock doesn't oh I see that

192
00:08:50,389 --> 00:08:55,370
that's interesting I never thought about

193
00:08:51,830 --> 00:08:56,690
that yeah and scientists will limit the

194
00:08:55,370 --> 00:08:58,909
physical objects of other properties

195
00:08:56,690 --> 00:09:00,410
like hardness and melting point and

196
00:08:58,909 --> 00:09:03,259
boiling point and whether they dissolved

197
00:09:00,409 --> 00:09:04,699
in fluids yeah and engineers make use of

198
00:09:03,259 --> 00:09:08,149
all these properties to make things like

199
00:09:04,700 --> 00:09:10,759
concrete and glass and plastic and

200

00:09:08,149 --> 00:09:12,639
liquid crystal displays because they

201
00:09:10,759 --> 00:09:14,929
know about these things and there's

202
00:09:12,639 --> 00:09:17,419
nothing magical about crystals they're

203
00:09:14,929 --> 00:09:22,549
just physical objects of course they are

204
00:09:17,419 --> 00:09:24,979
so let's talk about this the the opinion

205
00:09:22,549 --> 00:09:26,899
out there for many of the New Age crowd

206
00:09:24,980 --> 00:09:29,300
that crystals will not only have

207
00:09:26,899 --> 00:09:30,740
mystical properties but they have they

208
00:09:29,299 --> 00:09:33,169
make their very different claims that

209
00:09:30,740 --> 00:09:36,440
crystals can do things to energy energy

210
00:09:33,169 --> 00:09:37,969
yes that's right when the New Age people

211
00:09:36,440 --> 00:09:39,710
talk about energy they must be talking

212
00:09:37,970 --> 00:09:41,779
about something different on my wall out

213
00:09:39,710 --> 00:09:43,009
there this what's called an energy meter

214
00:09:41,779 --> 00:09:45,079

that measures the kilowatt hours

215

00:09:43,009 --> 00:09:47,360
supplied by the electricity since it was

216

00:09:45,080 --> 00:09:49,670
last spread to my house and that

217

00:09:47,360 --> 00:09:52,639
measures energy hmm i'd like to ask

218

00:09:49,669 --> 00:09:53,990
these new-age proponents if i give them

219

00:09:52,639 --> 00:09:55,490
this crystal how will they use the

220

00:09:53,990 --> 00:09:57,500
energy meter to measure the energy in

221

00:09:55,490 --> 00:09:59,600
the crystal oh it's got indicate

222

00:09:57,500 --> 00:10:02,029
spiritual individually yeah that's a

223

00:09:59,600 --> 00:10:04,009
element is mechanical energy yeah at

224

00:10:02,029 --> 00:10:07,129
this if I drop this under your head from

225

00:10:04,009 --> 00:10:08,659
a great hole its kinetic energy is

226

00:10:07,129 --> 00:10:10,340
measured by asim peppermint whether you

227

00:10:08,659 --> 00:10:12,860
got potential than kinetic right that's

228

00:10:10,340 --> 00:10:14,960
right yes that's right the potential

229
00:10:12,860 --> 00:10:17,000
energy due to heart get over to kinetic

230
00:10:14,960 --> 00:10:19,310
energy Judy giggles its converted to

231
00:10:17,000 --> 00:10:21,440
painful if anything was it it's fine he

232
00:10:19,309 --> 00:10:24,859
said the energy is a half MV squared

233
00:10:21,440 --> 00:10:27,740
mess times velocity squared and of

234
00:10:24,860 --> 00:10:29,330
course if the crystal lands on your head

235
00:10:27,740 --> 00:10:30,110
it'll hurt exactly the same as a rock

236
00:10:29,330 --> 00:10:31,700
under the same

237
00:10:30,110 --> 00:10:33,250
conditions yes they're about the same

238
00:10:31,700 --> 00:10:35,329
yes absolutely so the energy of a

239
00:10:33,250 --> 00:10:37,730
crystal is no different from the energy

240
00:10:35,328 --> 00:10:39,679
of a rock in that respect your lute ly

241
00:10:37,730 --> 00:10:41,300
right now well let's have a look at this

242
00:10:39,679 --> 00:10:43,639
interesting claim near the bottom here

243
00:10:41,299 --> 00:10:46,539
that what day I alabaster distritos the

244
00:10:43,639 --> 00:10:50,120
vibration of the crystals resonating and

245
00:10:46,539 --> 00:10:53,120
energizing to the 60 dash ninety percent

246
00:10:50,120 --> 00:10:55,789
of water in our bodies has a profound

247
00:10:53,120 --> 00:10:57,500
healing effect what do you okay that

248
00:10:55,789 --> 00:10:59,838
resonating and vibration this is the

249
00:10:57,500 --> 00:11:02,028
other word vibration vibrations yes they

250
00:10:59,839 --> 00:11:03,910
love that word I think most of us have

251
00:11:02,028 --> 00:11:08,470
probably mowing the lawn with an old

252
00:11:03,909 --> 00:11:11,649
Victor I do that vibrates your hands and

253
00:11:08,470 --> 00:11:13,850
it shakes and shadows and kicks and

254
00:11:11,649 --> 00:11:18,708
shakes well that's vibration gives

255
00:11:13,850 --> 00:11:21,050
vibration here and these days power

256
00:11:18,708 --> 00:11:22,639
mowers have to have means to control the

257

00:11:21,049 --> 00:11:24,500
vibration because it's possible that

258
00:11:22,639 --> 00:11:26,689
vibration in fact as known but too much

259
00:11:24,500 --> 00:11:29,720
vibration kills the nerves in your

260
00:11:26,690 --> 00:11:31,430
fingers and hands and you yeah yeah yeah

261
00:11:29,720 --> 00:11:35,329
so fibration is not to be taken lightly

262
00:11:31,429 --> 00:11:37,659
and crystals don't produce vibration if

263
00:11:35,328 --> 00:11:40,370
I was to stick this rock on top of the

264
00:11:37,659 --> 00:11:43,009
victim Otomo shagging and spluttering

265
00:11:40,370 --> 00:11:44,240
away you held mower yeah it would jump

266
00:11:43,009 --> 00:11:45,889
up and down and rattle because the

267
00:11:44,240 --> 00:11:47,149
vibrations have been transmitted to it

268
00:11:45,889 --> 00:11:51,879
that's right but just sitting here and

269
00:11:47,149 --> 00:11:54,769
I'm holding the crystals now in my hand

270
00:11:51,879 --> 00:11:56,929
in what sense is this vibrating if I was

271
00:11:54,769 --> 00:11:58,820

to take the new age with certainly not

272

00:11:56,929 --> 00:12:00,979

vibrating this number meaningful way

273

00:11:58,820 --> 00:12:02,480

they don't know as I'm it will transmit

274

00:12:00,980 --> 00:12:03,740

vibration if you put them in one side

275

00:12:02,480 --> 00:12:07,250

they'll come out deadly but it's not

276

00:12:03,740 --> 00:12:10,579

producing anything so when they say the

277

00:12:07,250 --> 00:12:12,019

vibration of crystals is its meaning

278

00:12:10,578 --> 00:12:14,750

just nonsense if they don't know what

279

00:12:12,019 --> 00:12:16,220

the word means i have to agree data a

280

00:12:14,750 --> 00:12:18,289

lot of these people don't know what the

281

00:12:16,220 --> 00:12:20,829

word energy means because in this blurb

282

00:12:18,289 --> 00:12:24,588

it's used here we are right at the top

283

00:12:20,828 --> 00:12:27,019

energy / vibration medicine is becoming

284

00:12:24,589 --> 00:12:28,699

very popular energy vibration medicine

285

00:12:27,019 --> 00:12:31,070

that's a new term perhaps nuclear

286
00:12:28,698 --> 00:12:34,819
medicine where it is the Arctic medicine

287
00:12:31,070 --> 00:12:36,949
a lot of the proponents of homeopathy oh

288
00:12:34,820 --> 00:12:40,010
my Appa 'they will say that its energy

289
00:12:36,948 --> 00:12:41,528
medicine homeopathy is energy man it's

290
00:12:40,009 --> 00:12:44,379
not physical energy

291
00:12:41,528 --> 00:12:46,448
physical medicine is not what we might

292
00:12:44,379 --> 00:12:48,550
understand but it works on energy oh

293
00:12:46,448 --> 00:12:50,019
well it must be magic obviously they

294
00:12:48,549 --> 00:12:52,208
don't know it energy means you don't

295
00:12:50,019 --> 00:12:54,209
seriously they don't and when you're

296
00:12:52,208 --> 00:12:57,698
talking with these people can be very

297
00:12:54,208 --> 00:13:00,758
very frustrating because when you're not

298
00:12:57,698 --> 00:13:04,028
talking the same language in effect the

299
00:13:00,759 --> 00:13:06,699
other one they refer to a notice dr.

300
00:13:04,028 --> 00:13:09,909
masaru emoto a visionary japanese

301
00:13:06,698 --> 00:13:11,409
researcher in his book the message from

302
00:13:09,909 --> 00:13:13,299
water speaks of the positive and

303
00:13:11,409 --> 00:13:15,698
negative and it just ends at the

304
00:13:13,299 --> 00:13:17,979
positive and negative it is just a heads

305
00:13:15,698 --> 00:13:20,198
haha what I wouldn't say they didn't

306
00:13:17,980 --> 00:13:22,778
know what constitutes a sentence well

307
00:13:20,198 --> 00:13:24,849
there you go but he's the guy well in

308
00:13:22,778 --> 00:13:26,558
all and as possible fairness to these

309
00:13:24,850 --> 00:13:28,209
people maybe they just cut the page off

310
00:13:26,558 --> 00:13:29,708
their own and okay now that he's the guy

311
00:13:28,208 --> 00:13:32,528
of course he died last year but he was

312
00:13:29,708 --> 00:13:34,838
taking the microscopic pictures of water

313
00:13:32,528 --> 00:13:36,669
yes indeed he was singing to the water

314

00:13:34,839 --> 00:13:38,019
we use singing to the water and then you

315
00:13:36,669 --> 00:13:39,878
freeze the water and it changes the

316
00:13:38,019 --> 00:13:42,308
shape of the crystals and well we did a

317
00:13:39,879 --> 00:13:45,550
bit of research on him as I had before

318
00:13:42,308 --> 00:13:48,639
as well Andy variously causes of dr.

319
00:13:45,549 --> 00:13:51,519
professors sir oh yes and he's never

320
00:13:48,639 --> 00:13:55,149
conducted research at a university his

321
00:13:51,519 --> 00:13:57,789
degree is from in the sri lankan degree

322
00:13:55,149 --> 00:14:00,039
mill oh really and if you didn't know if

323
00:13:57,789 --> 00:14:01,509
you research that they don't have any

324
00:14:00,039 --> 00:14:03,610
lectures you don't have to attend victor

325
00:14:01,509 --> 00:14:04,959
they don't have any laboratory's the

326
00:14:03,610 --> 00:14:06,879
requirement for getting a degree there

327
00:14:04,958 --> 00:14:08,258
is to send them five hundred dollars in

328
00:14:06,879 --> 00:14:11,920

a statement of what you would like your

329

00:14:08,259 --> 00:14:13,480
certificate to say then you get a

330

00:14:11,919 --> 00:14:15,639
doctorate that's right in fact they've

331

00:14:13,480 --> 00:14:17,740
issued 1,000,000 an estimated 1 million

332

00:14:15,639 --> 00:14:19,329
degrees hey that's not bad without

333

00:14:17,740 --> 00:14:23,350
having a lecture theatre or laboratory

334

00:14:19,328 --> 00:14:24,549
that's not bad yeah I said that again is

335

00:14:23,350 --> 00:14:27,519
the type of thing that these people

336

00:14:24,549 --> 00:14:29,649
refer to without any checking at all hmm

337

00:14:27,519 --> 00:14:31,870
five minutes on the internet a bit of

338

00:14:29,649 --> 00:14:34,720
research will find out because this

339

00:14:31,870 --> 00:14:36,220
man's name comes up often when I'm

340

00:14:34,720 --> 00:14:38,259
talking to New Age people they will

341

00:14:36,220 --> 00:14:40,569
often refer to dr. Emoto as if he's

342

00:14:38,259 --> 00:14:42,249
conducted real research which validates

343
00:14:40,568 --> 00:14:43,360
their point of view that the energies

344
00:14:42,249 --> 00:14:46,700
can have a

345
00:14:43,360 --> 00:14:49,519
he was on water and so on well the

346
00:14:46,700 --> 00:14:52,340
scientists are always cautious in what

347
00:14:49,519 --> 00:14:55,370
they say they say things like he hasn't

348
00:14:52,340 --> 00:14:57,980
published any refereed pages and he

349
00:14:55,370 --> 00:15:01,100
doesn't have a laboratory and his work

350
00:14:57,980 --> 00:15:03,170
has never been verified and it's not

351
00:15:01,100 --> 00:15:05,000
taken very seriously well I say it's

352
00:15:03,169 --> 00:15:07,429
nonsense from start to finish yeah and

353
00:15:05,000 --> 00:15:10,909
it's also fraudulent he became very rich

354
00:15:07,429 --> 00:15:12,769
from this without without any real basis

355
00:15:10,909 --> 00:15:14,839
or or under false pretenses yes you

356
00:15:12,769 --> 00:15:17,090
don't go a bit further and there's more

357
00:15:14,840 --> 00:15:19,759
interesting things here the Crystal

358
00:15:17,090 --> 00:15:22,160
Light bed modality is the ultimate in

359
00:15:19,759 --> 00:15:23,659
life enhancing experience because of the

360
00:15:22,159 --> 00:15:25,879
profound work being done on all levels

361
00:15:23,659 --> 00:15:28,279
of the body uses what we call word salad

362
00:15:25,879 --> 00:15:30,889
of course and then oh hello here comes

363
00:15:28,279 --> 00:15:32,870
another plane it's fun living in the

364
00:15:30,889 --> 00:15:34,549
light the flight puppy now they uses

365
00:15:32,870 --> 00:15:36,769
real internet right it reminds you of

366
00:15:34,549 --> 00:15:40,250
the advances of technology as i said in

367
00:15:36,769 --> 00:15:44,329
castle it says it combines the power of

368
00:15:40,250 --> 00:15:46,370
color and crystal light frequencies ah

369
00:15:44,330 --> 00:15:48,230
now i can i must these are just words

370
00:15:46,370 --> 00:15:50,870
but they just were thrown together yeah

371

00:15:48,230 --> 00:15:53,360
frequencies is another technical word so

372
00:15:50,870 --> 00:15:55,190
how would you technically give give our

373
00:15:53,360 --> 00:15:57,529
audience a good understanding of the

374
00:15:55,190 --> 00:16:00,170
word frequencies or frequency because

375
00:15:57,529 --> 00:16:02,779
this word comes up again and again and

376
00:16:00,169 --> 00:16:05,360
again yes indeed well frequency is a

377
00:16:02,779 --> 00:16:06,679
fundamental physical property that you

378
00:16:05,360 --> 00:16:08,300
can measure frequency means have

379
00:16:06,679 --> 00:16:10,939
frequently something's happening happens

380
00:16:08,299 --> 00:16:14,059
exactly right yeah and the the power

381
00:16:10,940 --> 00:16:15,650
coming to your house the frequency is 50

382
00:16:14,059 --> 00:16:17,959
cycles per second or 50 Hertz because

383
00:16:15,649 --> 00:16:20,720
the voluntary versus 50 times a second

384
00:16:17,960 --> 00:16:22,250
and when I'm speaking to you my voice as

385
00:16:20,720 --> 00:16:24,500

a health spectrum of San some of the

386

00:16:22,250 --> 00:16:26,870

sound is 300 cycles per second or 300

387

00:16:24,500 --> 00:16:30,339

Hertz and the three thousand Hertz bit

388

00:16:26,870 --> 00:16:32,960

in between so that the frequency means

389

00:16:30,339 --> 00:16:34,850

refers to some physical phenomenon not

390

00:16:32,960 --> 00:16:37,040

objective but a phenomenon you can refer

391

00:16:34,850 --> 00:16:39,560

to sound decree further light can refer

392

00:16:37,039 --> 00:16:41,299

to x-rays and hope your holidays you

393

00:16:39,559 --> 00:16:43,039

might have your holidays might have a

394

00:16:41,299 --> 00:16:45,229

frequency of two per year or wednesday

395

00:16:43,039 --> 00:16:47,779

yes so it's really a time interval

396

00:16:45,230 --> 00:16:49,370

between two events that's right when you

397

00:16:47,779 --> 00:16:52,459

when you boil down to it so when they

398

00:16:49,370 --> 00:16:54,799

talk about the frequency it they don't

399

00:16:52,460 --> 00:16:56,300

even does not even refer any what

400
00:16:54,799 --> 00:16:58,279
physical phenomena as weather

401
00:16:56,299 --> 00:17:00,199
slight of ultrasonic vibration together

402
00:16:58,279 --> 00:17:01,129
for the frequent this was a sort of

403
00:17:00,200 --> 00:17:02,509
thing we were getting with the power

404
00:17:01,129 --> 00:17:05,569
balance wristband if you remember that

405
00:17:02,509 --> 00:17:07,970
when they would say it's embedded with

406
00:17:05,569 --> 00:17:09,740
frequencies and the wine Kurt and the

407
00:17:07,970 --> 00:17:11,390
wine car is embedded with frequencies

408
00:17:09,740 --> 00:17:13,970
which were transferred to the wine so

409
00:17:11,390 --> 00:17:16,009
let me look at that sentence embedded

410
00:17:13,970 --> 00:17:17,990
with frequencies does that make any

411
00:17:16,009 --> 00:17:21,740
sense as a slice like this this rock is

412
00:17:17,990 --> 00:17:24,500
embedded with length yeah well just as

413
00:17:21,740 --> 00:17:26,380
meaningful yeah so to say something is

414
00:17:24,500 --> 00:17:28,880
embedded with frequencies as just your

415
00:17:26,380 --> 00:17:30,500
son nonsense it's not a lot of

416
00:17:28,880 --> 00:17:32,690
frequencies is not a noun that you can

417
00:17:30,500 --> 00:17:34,819
use in that application right so you'd

418
00:17:32,690 --> 00:17:37,309
have to click Satan it contains lie to

419
00:17:34,819 --> 00:17:39,439
it it's being vibrated by something or

420
00:17:37,309 --> 00:17:41,419
so something optra something you can't

421
00:17:39,440 --> 00:17:42,950
embed something with frequencies notice

422
00:17:41,420 --> 00:17:45,230
the sentence doesn't make sense that's

423
00:17:42,950 --> 00:17:47,509
right frequencies is a physical

424
00:17:45,230 --> 00:17:49,490
measurement yeah yeah not a phenomenon

425
00:17:47,509 --> 00:17:52,789
yeah so next time someone says that you

426
00:17:49,490 --> 00:17:54,289
did this question is frequencies of what

427
00:17:52,789 --> 00:17:59,539
yes and you know what the answer would

428

00:17:54,289 --> 00:18:01,069
be 0 energy ran in circles but and I

429
00:17:59,539 --> 00:18:03,019
mean you've been at this game for a long

430
00:18:01,069 --> 00:18:04,549
time in a lot longer than I have you

431
00:18:03,019 --> 00:18:07,609
must have come across similar sort of

432
00:18:04,549 --> 00:18:10,069
things where people say the mystical

433
00:18:07,609 --> 00:18:11,869
energies or you've come across claims

434
00:18:10,069 --> 00:18:15,069
with crystals before I would imagine Oh

435
00:18:11,869 --> 00:18:18,489
many times yeah yes usually you just

436
00:18:15,069 --> 00:18:22,220
laugh at them that the hundredth time

437
00:18:18,490 --> 00:18:23,930
the other did I mean we're just looking

438
00:18:22,220 --> 00:18:27,559
at some other pictures taken at the same

439
00:18:23,930 --> 00:18:29,299
the same shop here and one of the other

440
00:18:27,559 --> 00:18:32,269
things they have here is in a big sign

441
00:18:29,299 --> 00:18:36,409
that saying immerse yourself in crystal

442
00:18:32,269 --> 00:18:39,410

light crystal light bed therapy and it

443

00:18:36,410 --> 00:18:41,240

says the book ends as an opens your

444

00:18:39,410 --> 00:18:42,740

chakras there yeah there you go Sacre's

445

00:18:41,240 --> 00:18:44,720

is at least they're not claiming that to

446

00:18:42,740 --> 00:18:47,359

be a scientific term it cleanses an open

447

00:18:44,720 --> 00:18:49,009

chakras from negative negativity and

448

00:18:47,359 --> 00:18:50,479

energy block music nah-ha energy

449

00:18:49,009 --> 00:18:52,910

blockages that's right yeah let's talk

450

00:18:50,480 --> 00:18:55,660

about energy blockages and and and this

451

00:18:52,910 --> 00:18:58,009

this whole thing of negative energy it's

452

00:18:55,660 --> 00:18:59,750

again it's another nonsense isn't it I

453

00:18:58,009 --> 00:19:01,220

mean it maybe they're thinking of a

454

00:18:59,750 --> 00:19:02,690

positive and a negative on a battery

455

00:19:01,220 --> 00:19:06,019

terminal something like that but that

456

00:19:02,690 --> 00:19:07,940

doesn't mean good or better good or bad

457
00:19:06,019 --> 00:19:09,529
no is it could it could mean north or

458
00:19:07,940 --> 00:19:12,259
south or one or two it's just a way to

459
00:19:09,529 --> 00:19:14,059
differentiate isn't exactly yes sir I've

460
00:19:12,259 --> 00:19:16,490
got into trouble on some healing

461
00:19:14,059 --> 00:19:19,369
retreats where the japanese professor

462
00:19:16,490 --> 00:19:21,140
was cleansing our negative energies or

463
00:19:19,369 --> 00:19:23,059
chi oh yeah at the end of the session

464
00:19:21,140 --> 00:19:26,150
you brushed yourself down to scrape away

465
00:19:23,059 --> 00:19:28,129
or the negative Chi off your body and I

466
00:19:26,150 --> 00:19:30,170
had the nerve to us where does it

467
00:19:28,130 --> 00:19:31,790
actually go is that I said is that what

468
00:19:30,170 --> 00:19:33,950
these holes in the floor or for what

469
00:19:31,789 --> 00:19:35,869
does it accumulate under the building

470
00:19:33,950 --> 00:19:38,269
will it come back and haunt us again

471
00:19:35,869 --> 00:19:42,049
later and he looked at me like I was

472
00:19:38,269 --> 00:19:43,819
stupid anyway the next session he was to

473
00:19:42,049 --> 00:19:45,740
now brush all the negative energies of

474
00:19:43,819 --> 00:19:48,230
you and he said where they go we do not

475
00:19:45,740 --> 00:19:50,569
know oh really how about a litany

476
00:19:48,230 --> 00:19:52,970
remembered it so yes this whole concept

477
00:19:50,569 --> 00:19:54,889
of negative energies is a nonsense of

478
00:19:52,970 --> 00:19:56,690
course chakras are nonsense because

479
00:19:54,890 --> 00:19:58,759
they're just a made-up points of the

480
00:19:56,690 --> 00:20:03,070
body just arbitrary I would imagine but

481
00:19:58,759 --> 00:20:06,740
we're chakras and a lot of Ayurvedic

482
00:20:03,069 --> 00:20:08,839
so-called doctrine and so forth comes

483
00:20:06,740 --> 00:20:12,650
from a pre-scientific civilization user

484
00:20:08,839 --> 00:20:14,990
stage years am that so you can't blame

485

00:20:12,650 --> 00:20:16,220
them for making up things like that

486
00:20:14,990 --> 00:20:18,049
because they didn't have a knowledge of

487
00:20:16,220 --> 00:20:20,390
science but in the energy and frequency

488
00:20:18,049 --> 00:20:22,399
a real word well known that he'll

489
00:20:20,390 --> 00:20:24,680
science yeah the next point it makes

490
00:20:22,400 --> 00:20:27,350
here are under benefits lifts your

491
00:20:24,680 --> 00:20:29,029
energy vibration while aligning the

492
00:20:27,349 --> 00:20:31,809
entire chakra system let's look at the

493
00:20:29,029 --> 00:20:35,869
first part lifts your energy vibration

494
00:20:31,809 --> 00:20:37,549
does that make any sense at all so again

495
00:20:35,869 --> 00:20:39,109
we got word salad we just got words

496
00:20:37,549 --> 00:20:42,109
thrown together that sound like they're

497
00:20:39,109 --> 00:20:45,289
from science number sound meaningful but

498
00:20:42,109 --> 00:20:46,759
simply don't make any real sense mmm I

499
00:20:45,289 --> 00:20:48,649

like this one improves all health

500

00:20:46,759 --> 00:20:50,629
conditions that's a big claim that's

501

00:20:48,650 --> 00:20:52,840
right the few yeah if you could if you

502

00:20:50,630 --> 00:20:55,340
look at a medication and read its

503

00:20:52,839 --> 00:20:57,949
description it tells us specifically

504

00:20:55,339 --> 00:20:59,689
what ailments that can hear in a fit

505

00:20:57,950 --> 00:21:02,960
like for example high blood pressure or

506

00:20:59,690 --> 00:21:04,970
gastric reflux but something that would

507

00:21:02,960 --> 00:21:07,670
improve all health conditions wide

508

00:21:04,970 --> 00:21:09,799
acclaim but I deal with one claim here

509

00:21:07,670 --> 00:21:13,039
that i would probably would say would

510

00:21:09,799 --> 00:21:15,980
work benefits feeling deep relaxation

511

00:21:13,039 --> 00:21:17,480
and in a piece i would expect if you go

512

00:21:15,980 --> 00:21:18,740
to one of these sessions and you're

513

00:21:17,480 --> 00:21:20,299
treated well and you lie

514
00:21:18,740 --> 00:21:24,620
on something you think is mystical you

515
00:21:20,299 --> 00:21:25,819
will probably get a relaxation benefit

516
00:21:24,619 --> 00:21:27,709
out of it because you think something

517
00:21:25,819 --> 00:21:29,558
mystical and magical is happening I mean

518
00:21:27,710 --> 00:21:32,240
you get the same thing lying down on a

519
00:21:29,558 --> 00:21:34,009
blow-up bed on a swimming pool I would

520
00:21:32,240 --> 00:21:35,299
expect and be Laura flotation tank

521
00:21:34,009 --> 00:21:37,220
richer don't know whether you have

522
00:21:35,299 --> 00:21:39,678
assessed me my present yes yeah when I

523
00:21:37,220 --> 00:21:41,929
was younger I i tried the flotation

524
00:21:39,679 --> 00:21:44,980
taken i found it restful and peace mine

525
00:21:41,929 --> 00:21:47,360
quite quite pleasant or a message and

526
00:21:44,980 --> 00:21:48,529
indeed absolutely right so this make you

527
00:21:47,359 --> 00:21:50,659
feel better there's no doubt about that

528
00:21:48,529 --> 00:21:54,019
yeah but don't cure illnesses no they

529
00:21:50,660 --> 00:21:55,400
don't they don't so yeah this whole the

530
00:21:54,019 --> 00:21:57,470
other one is the immune system also

531
00:21:55,400 --> 00:21:59,690
stimulates and boosting immune system

532
00:21:57,470 --> 00:22:04,299
well funny enough what really affects

533
00:21:59,690 --> 00:22:04,299
the immune system is called immunization

534
00:22:04,390 --> 00:22:08,059
it's something we know all too well on

535
00:22:06,558 --> 00:22:10,730
the places to do that is called

536
00:22:08,058 --> 00:22:12,799
vaccination anything that would help so

537
00:22:10,730 --> 00:22:18,079
yeah I I don't see how lying in a

538
00:22:12,799 --> 00:22:20,509
crystal bed would do that and we got

539
00:22:18,079 --> 00:22:23,869
other word salad here it is a relaxing

540
00:22:20,509 --> 00:22:25,849
rejuvenating repairing and rebalancing

541
00:22:23,869 --> 00:22:27,919
experience of rebalancing is very

542

00:22:25,849 --> 00:22:29,178
important see if you're unbalanced

543
00:22:27,920 --> 00:22:32,360
you'll tend to fall over if they walk

544
00:22:29,179 --> 00:22:34,220
along the hook performance that wouldn't

545
00:22:32,359 --> 00:22:35,389
be any good with it no move your center

546
00:22:34,220 --> 00:22:37,929
of gravity there's another physical

547
00:22:35,390 --> 00:22:41,720
measurement you ms center of mass yeah

548
00:22:37,929 --> 00:22:44,660
so we've got a lot of a lot of these

549
00:22:41,720 --> 00:22:47,329
new-age words popping up here in and it

550
00:22:44,660 --> 00:22:51,558
in the end it's really an abuse of words

551
00:22:47,329 --> 00:22:54,379
that have very powerful meanings in

552
00:22:51,558 --> 00:22:57,349
science and very definite meanings yes

553
00:22:54,380 --> 00:23:00,170
all i can say is that furthering science

554
00:22:57,349 --> 00:23:01,759
education will help to promote this as

555
00:23:00,170 --> 00:23:03,730
clearly shown that the higher the level

556
00:23:01,759 --> 00:23:06,379

of science education their lists that

557

00:23:03,730 --> 00:23:09,019

belief in whoa in the community yeah

558

00:23:06,380 --> 00:23:10,640

benefits everyone you don't need you

559

00:23:09,019 --> 00:23:13,910

know always benefit in your career

560

00:23:10,640 --> 00:23:15,500

perhaps or vocation from science

561

00:23:13,910 --> 00:23:17,570

education but it helps you adapt to

562

00:23:15,500 --> 00:23:19,549

everyday life yeah yeah and it might

563

00:23:17,569 --> 00:23:22,039

help you when you see something like

564

00:23:19,549 --> 00:23:24,230

these words strung together lifts your

565

00:23:22,039 --> 00:23:27,500

energy vibration in you can recognize

566

00:23:24,230 --> 00:23:29,808

that that is a meaningless statement you

567

00:23:27,500 --> 00:23:31,160

might can spend your money on something

568

00:23:29,808 --> 00:23:32,440

that will benefit to you like we

569

00:23:31,160 --> 00:23:35,200

mentioned a massage

570

00:23:32,440 --> 00:23:37,750

or a pleasant holiday yes a dinner with

571
00:23:35,200 --> 00:23:41,170
a friend I'd rather I'd rather have a

572
00:23:37,750 --> 00:23:43,119
dinner with a friend and a crystal the

573
00:23:41,170 --> 00:23:45,039
other thing is crystal light bed therapy

574
00:23:43,119 --> 00:23:47,169
without knowing what it does yeah it's

575
00:23:45,039 --> 00:23:51,039
let's suppose that there is a bit of

576
00:23:47,170 --> 00:23:53,340
crystals and then a clip with lights

577
00:23:51,039 --> 00:23:56,470
under them to illuminate them yeah and

578
00:23:53,339 --> 00:23:58,119
maybe there's a clear plastic surface

579
00:23:56,470 --> 00:24:00,009
that you then lie on so that your body

580
00:23:58,119 --> 00:24:03,879
is exposed to this that would be very

581
00:24:00,009 --> 00:24:06,180
much like a tanning booth do you

582
00:24:03,880 --> 00:24:09,280
remember those he is the term yeah Oh

583
00:24:06,180 --> 00:24:10,690
salon salons yes tanning booths yes I

584
00:24:09,279 --> 00:24:12,519
know they did expose you to ultraviolet

585
00:24:10,690 --> 00:24:14,559
light so you attend quickly and look

586
00:24:12,519 --> 00:24:17,190
attractive yeah yeah well they've been

587
00:24:14,559 --> 00:24:19,389
found to be very hard very hard yeah

588
00:24:17,190 --> 00:24:20,710
increase the chance of melanoma so it

589
00:24:19,390 --> 00:24:23,800
was actually none of them in use anymore

590
00:24:20,710 --> 00:24:25,569
I suspect this is probably behind this

591
00:24:23,799 --> 00:24:27,339
this Chris it would probably be been

592
00:24:25,569 --> 00:24:30,039
lying in some sort of bed with crystals

593
00:24:27,339 --> 00:24:31,629
and blue lights on and then all the

594
00:24:30,039 --> 00:24:34,000
associated claims the crystals have had

595
00:24:31,630 --> 00:24:36,490
a long history in the New Age industry

596
00:24:34,000 --> 00:24:38,859
of mystical meanings and healings and

597
00:24:36,490 --> 00:24:41,170
indeed you can buy books which lists all

598
00:24:38,859 --> 00:24:44,769
the range of crystals and all their

599

00:24:41,170 --> 00:24:47,320
healing modalities or claims that's

600
00:24:44,769 --> 00:24:50,289
right well the Sun they talk about

601
00:24:47,319 --> 00:24:51,909
crystals refracting light and the light

602
00:24:50,289 --> 00:24:53,170
having special properties well of course

603
00:24:51,910 --> 00:24:55,000
people pay a lot of money for diamonds

604
00:24:53,170 --> 00:24:56,650
and other gems that yes that are

605
00:24:55,000 --> 00:24:58,599
crystals and they're cut to certain

606
00:24:56,650 --> 00:25:03,070
angles to refract the light in very

607
00:24:58,599 --> 00:25:06,099
attractive ways but cut glass crystal

608
00:25:03,069 --> 00:25:07,659
glass decanters and goblets and so forth

609
00:25:06,099 --> 00:25:10,449
have a very similar effect that almost

610
00:25:07,660 --> 00:25:13,029
the same remember the very fracked light

611
00:25:10,450 --> 00:25:14,950
assignment and funny thing is that glass

612
00:25:13,029 --> 00:25:19,000
isn't even a crystal it's a name office

613
00:25:14,950 --> 00:25:21,279

yeah yeah so there if the refraction of

614

00:25:19,000 --> 00:25:23,349

light that they claim for crystals it is

615

00:25:21,279 --> 00:25:25,450

not actually specific to crystals and

616

00:25:23,349 --> 00:25:28,419

snowing and the amorphous materials as

617

00:25:25,450 --> 00:25:30,340

well so sorry so there we re there's a

618

00:25:28,420 --> 00:25:32,410

whole lot of interesting claims to look

619

00:25:30,339 --> 00:25:33,789

out there that's just looking another

620

00:25:32,410 --> 00:25:36,190

photograph from the shop now we've got

621

00:25:33,789 --> 00:25:38,200

arrange it like crystal lights and

622

00:25:36,190 --> 00:25:41,019

crystal this and crystal that the same

623

00:25:38,200 --> 00:25:44,110

shop offers psychic readings and all

624

00:25:41,019 --> 00:25:46,039

sorts of things like them I have here a

625

00:25:44,109 --> 00:25:49,369

couple of other examples of crystals

626

00:25:46,039 --> 00:25:51,470

being used for whoo when is this salt

627

00:25:49,369 --> 00:25:54,709

shaker here here told Himalayan crystal

628
00:25:51,470 --> 00:25:56,839
skulls laying crystal salt I'm shaking

629
00:25:54,710 --> 00:26:01,039
it you pay a lot of money that has pink

630
00:25:56,839 --> 00:26:04,039
in color oh yeah hmm so that's another

631
00:26:01,039 --> 00:26:07,809
exploitation is here the purest salt on

632
00:26:04,039 --> 00:26:10,519
earth how about that doesn't ground

633
00:26:07,809 --> 00:26:12,500
granules yes beautiful well of course

634
00:26:10,519 --> 00:26:14,500
salt and sugar are crystalline if you

635
00:26:12,500 --> 00:26:16,759
look at them on a fine scale yeah yeah

636
00:26:14,500 --> 00:26:18,380
but of course once you eat them they

637
00:26:16,759 --> 00:26:21,470
dissolve in the water and then yeah

638
00:26:18,380 --> 00:26:24,560
become just an ionized solution so so

639
00:26:21,470 --> 00:26:27,259
much for the crystals and of course

640
00:26:24,559 --> 00:26:28,369
every few years that the New Age

641
00:26:27,259 --> 00:26:30,349
movement comes out with a different

642

00:26:28,369 --> 00:26:32,509

product that i can sell that they can

643

00:26:30,349 --> 00:26:34,849

sell for example i can remesh it i can

644

00:26:32,509 --> 00:26:37,609

remember when they were selling mud from

645

00:26:34,849 --> 00:26:39,529

the bottom of a swiss lake yes your eyes

646

00:26:37,609 --> 00:26:41,869

rub on your face different mixes of

647

00:26:39,529 --> 00:26:43,399

years 10 years ago here Elaine I'm sure

648

00:26:41,869 --> 00:26:45,289

a third of you Elaine but or maybe

649

00:26:43,400 --> 00:26:47,030

Himalayan is just trained e to say

650

00:26:45,289 --> 00:26:47,990

something's from that region and the

651

00:26:47,029 --> 00:26:51,289

other one was in the end earth or

652

00:26:47,990 --> 00:26:52,730

charcoal Sam would really dug up this

653

00:26:51,289 --> 00:26:56,000

ancient charcoal with mystical

654

00:26:52,730 --> 00:26:58,759

properties on you so that for you now

655

00:26:56,000 --> 00:27:01,009

the other object i have here yup oh wow

656

00:26:58,759 --> 00:27:02,839
a salt crystal lamp it's a lab it's got

657
00:27:01,009 --> 00:27:05,480
a power cord coming out of it a try and

658
00:27:02,839 --> 00:27:08,779
it it's very large maybe maybe where's 2

659
00:27:05,480 --> 00:27:11,509
kilograms yeah and it's hollowed out and

660
00:27:08,779 --> 00:27:13,849
it's got a light glow oh yeah and that

661
00:27:11,509 --> 00:27:17,119
causes healing ions to be emitted by the

662
00:27:13,849 --> 00:27:20,569
fight that's it that's right when would

663
00:27:17,119 --> 00:27:23,599
think that it's just a lump of yellowish

664
00:27:20,569 --> 00:27:25,250
salt that puts out a nice pleasant di

665
00:27:23,599 --> 00:27:27,439
pleasant like it's very good for a night

666
00:27:25,250 --> 00:27:29,900
light because it helps you to see the

667
00:27:27,440 --> 00:27:31,250
stairs in the dark yes or for that but

668
00:27:29,900 --> 00:27:34,009
it's claimed healing properties all

669
00:27:31,250 --> 00:27:36,950
really afraid not so crystals are used

670
00:27:34,009 --> 00:27:39,200

in many different things if he began to

671

00:27:36,950 --> 00:27:41,630

an alternative shop you'll probably find

672

00:27:39,200 --> 00:27:44,600

10 different applications of crystals

673

00:27:41,630 --> 00:27:46,370

being claimed to just to solve various

674

00:27:44,599 --> 00:27:49,819

things don't think so thank you very

675

00:27:46,369 --> 00:27:50,989

much Ian Bryce for your insights I'm

676

00:27:49,819 --> 00:27:53,509

sure we've learned a lot more about

677

00:27:50,990 --> 00:27:55,039

nonsense words and crystals and

678

00:27:53,509 --> 00:27:57,230

frequencies and energies and things like

679

00:27:55,039 --> 00:27:59,210

that and a bit more about real physics I

680

00:27:57,230 --> 00:28:03,230

had a bit more cut real physics

681

00:27:59,210 --> 00:28:05,149

now back to joe alabaster also spotted

682

00:28:03,230 --> 00:28:08,089

in newtown was a chalkboard in the

683

00:28:05,148 --> 00:28:09,408

window of a natural cosmetics shop it's

684

00:28:08,089 --> 00:28:11,329

a little difficult for me to read

685
00:28:09,409 --> 00:28:13,640
verbatim and fully capture the tone of

686
00:28:11,329 --> 00:28:15,288
what's been written so let you know when

687
00:28:13,640 --> 00:28:18,919
we hit all caps writing multiple

688
00:28:15,288 --> 00:28:23,658
underlines of maleic talc is closely

689
00:28:18,919 --> 00:28:25,490
related to asbestos talc particles have

690
00:28:23,659 --> 00:28:28,450
been shown to cause tumors in the

691
00:28:25,490 --> 00:28:30,769
ovaries and lungs of cancer victims

692
00:28:28,450 --> 00:28:33,880
talcum is often their number one

693
00:28:30,769 --> 00:28:36,349
ingredient in cosmetics its cost is

694
00:28:33,880 --> 00:28:39,470
approximately fifty dollars that's

695
00:28:36,349 --> 00:28:42,469
Underland per metric ton that's

696
00:28:39,470 --> 00:28:44,960
capitalized then we've got dollar sign

697
00:28:42,470 --> 00:28:48,460
dollar sign door son dollar sign or caps

698
00:28:44,960 --> 00:28:50,899
do the maths exclamation marks

699
00:28:48,460 --> 00:28:55,038
nanoparticles are the ticking time bomb

700
00:28:50,898 --> 00:28:57,469
of this generation along with GMO these

701
00:28:55,038 --> 00:29:01,579
particles cross the brain / blood

702
00:28:57,470 --> 00:29:04,190
barrier capitals a billion nanoparticles

703
00:29:01,579 --> 00:29:07,569
fit on the head of a pin the rave of

704
00:29:04,190 --> 00:29:12,528
invisible sunscreens is not so glamorous

705
00:29:07,569 --> 00:29:15,500
capitals we don't underline use Z zinc

706
00:29:12,528 --> 00:29:19,130
in any double underline foundations or

707
00:29:15,500 --> 00:29:22,759
products lots of exclamation marks all

708
00:29:19,130 --> 00:29:25,490
caps knowledge if not applied becomes a

709
00:29:22,759 --> 00:29:28,849
burden and then we've got a couple of

710
00:29:25,490 --> 00:29:30,890
little X's as kisses at the end wow so

711
00:29:28,849 --> 00:29:33,349
that's a rather scary claim that talc

712
00:29:30,890 --> 00:29:36,020
causes cancer and I'm very happy to

713

00:29:33,349 --> 00:29:37,788
reassure you that it is a myth it's an

714
00:29:36,019 --> 00:29:41,869
interesting one though as it did

715
00:29:37,788 --> 00:29:43,940
originally have some basis in fact the

716
00:29:41,869 --> 00:29:47,239
shop window sign claims that talc is

717
00:29:43,940 --> 00:29:48,620
closely related to asbestos this sounds

718
00:29:47,240 --> 00:29:50,149
rather alarming given that most

719
00:29:48,619 --> 00:29:52,189
Australians are quite familiar with

720
00:29:50,148 --> 00:29:54,259
asbestos fiber inhalation related

721
00:29:52,190 --> 00:29:57,250
illnesses including malignant lung

722
00:29:54,259 --> 00:30:00,019
cancer mesothelioma and asbestosis and

723
00:29:57,250 --> 00:30:01,609
the controversy surrounding the closing

724
00:30:00,019 --> 00:30:05,089
down of the asbestos mining and

725
00:30:01,609 --> 00:30:07,819
manufacturing industries as far as

726
00:30:05,089 --> 00:30:10,609
mineral composition goes tuck is fairly

727
00:30:07,819 --> 00:30:12,819

closely related to asbestos talc is

728

00:30:10,609 --> 00:30:15,099
hydrated magnesium silicate

729

00:30:12,819 --> 00:30:17,339
asbestos constitutes a set of six

730

00:30:15,099 --> 00:30:20,859
naturally occurring silicate minerals

731

00:30:17,339 --> 00:30:24,069
however this does not suggest that talc

732

00:30:20,859 --> 00:30:27,158
is danger a parallel claim would be to

733

00:30:24,069 --> 00:30:28,720
suggest that water h₂o is dangerous

734

00:30:27,159 --> 00:30:32,490
because it has a similar chemical

735

00:30:28,720 --> 00:30:35,860
composition to hydrogen peroxide h₂o₂

736

00:30:32,490 --> 00:30:38,230
unlike water hydrogen peroxide is an

737

00:30:35,859 --> 00:30:40,689
oxidant corrosive and creates localized

738

00:30:38,230 --> 00:30:43,808
capillary embolism on contact with human

739

00:30:40,690 --> 00:30:45,970
skin that one extra oxygen molecule

740

00:30:43,808 --> 00:30:49,000
resulting in an unstable peroxide bond

741

00:30:45,970 --> 00:30:52,000
makes a heck of a lot of difference so

742
00:30:49,000 --> 00:30:54,490
where's the fact because of their

743
00:30:52,000 --> 00:30:56,919
similar composition talc deposits are

744
00:30:54,490 --> 00:30:59,798
often found close to asbestos deposits

745
00:30:56,919 --> 00:31:02,679
as such talc deposits can be

746
00:30:59,798 --> 00:31:05,288
contaminated with asbestos while the

747
00:31:02,679 --> 00:31:07,480
talc itself is very much innocuous talc

748
00:31:05,288 --> 00:31:09,388
products produced prior to nineteen

749
00:31:07,480 --> 00:31:13,649
seventy three were sometimes

750
00:31:09,388 --> 00:31:15,699
contaminated with asbestos in 1973

751
00:31:13,648 --> 00:31:18,278
regulation of talc products was

752
00:31:15,700 --> 00:31:20,379
introduced resulting in prior risks

753
00:31:18,278 --> 00:31:23,740
associated with contaminated talcum

754
00:31:20,378 --> 00:31:25,449
powder being abolished modern tout

755
00:31:23,740 --> 00:31:27,669
refining processes are stringently

756
00:31:25,450 --> 00:31:30,009
monitored and there's no risk of lung

757
00:31:27,669 --> 00:31:34,870
disease associated with modern talcum

758
00:31:30,009 --> 00:31:37,000
powder or talc products the ovarian

759
00:31:34,869 --> 00:31:39,308
cancer claims are based on studies which

760
00:31:37,000 --> 00:31:41,859
found an increased ovarian cancer risk

761
00:31:39,308 --> 00:31:45,460
associated with the use of talcum powder

762
00:31:41,859 --> 00:31:47,949
but relied on self-reports over a large

763
00:31:45,460 --> 00:31:49,720
time period and as such were unable to

764
00:31:47,950 --> 00:31:52,269
measure either the purity of the talc

765
00:31:49,720 --> 00:31:55,329
used by participants nor the frequency

766
00:31:52,269 --> 00:31:57,009
and dose at which it was applied as such

767
00:31:55,329 --> 00:31:59,740
no causal link has been drawn between

768
00:31:57,009 --> 00:32:03,210
talcum ovarian cancer and studies have

769
00:31:59,740 --> 00:32:06,579
been deemed inconclusive now

770

00:32:03,210 --> 00:32:08,950
nanoparticles there is no known health

771
00:32:06,579 --> 00:32:12,000
risk associated with products containing

772
00:32:08,950 --> 00:32:13,840
nanoparticles applied to the skin in

773
00:32:12,000 --> 00:32:15,940
2013 the Therapeutic Goods

774
00:32:13,839 --> 00:32:18,250
Administration published a review of

775
00:32:15,940 --> 00:32:20,288
relevant studies which concluded that

776
00:32:18,250 --> 00:32:22,808
nanoparticles do not penetrate the skin

777
00:32:20,288 --> 00:32:25,970
beyond the outermost layer systemic

778
00:32:22,808 --> 00:32:27,799
absorption of nanoparticles is unlikely

779
00:32:25,970 --> 00:32:30,319
link oxide nanoparticles in particular

780
00:32:27,799 --> 00:32:32,899
have been studied and when exposed in

781
00:32:30,319 --> 00:32:35,210
vivo to a human immune cells the immune

782
00:32:32,900 --> 00:32:38,540
cells absorb the nanoparticles and broke

783
00:32:35,210 --> 00:32:40,370
them down claims regarding the dangers

784
00:32:38,539 --> 00:32:43,190

of nanoparticles and skin products are

785

00:32:40,369 --> 00:32:45,079

not based on any credible evidence nor

786

00:32:43,190 --> 00:32:47,269

for that matter is the other suggestions

787

00:32:45,079 --> 00:32:49,609

slipped in on the side that GMOs pose a

788

00:32:47,269 --> 00:32:52,970

health risk to humans despite public

789

00:32:49,609 --> 00:32:54,709

successes of anti GMO campaigners you

790

00:32:52,970 --> 00:32:56,480

know I get the impression that the

791

00:32:54,710 --> 00:32:58,670

people who run the natural cosmetics

792

00:32:56,480 --> 00:33:01,759

store very likely believe that they are

793

00:32:58,670 --> 00:33:03,200

doing good I could be cynical and come

794

00:33:01,759 --> 00:33:05,509

to the conclusion that they're knowingly

795

00:33:03,200 --> 00:33:07,490

using non evidence-based fear tactics to

796

00:33:05,509 --> 00:33:09,379

sell their products but that's something

797

00:33:07,490 --> 00:33:11,180

I really come across when encountering

798

00:33:09,380 --> 00:33:13,490

people who manufacture products based

799
00:33:11,180 --> 00:33:16,070
around a naturalistic fallacy and false

800
00:33:13,490 --> 00:33:18,410
dangers I think that it's far more

801
00:33:16,069 --> 00:33:20,119
likely that perhaps at some point the

802
00:33:18,410 --> 00:33:22,430
store owners came across misinformation

803
00:33:20,119 --> 00:33:24,589
on the dangers of talc and nanoparticles

804
00:33:22,430 --> 00:33:26,210
and took it as fact and then built a

805
00:33:24,589 --> 00:33:29,480
business around something that they felt

806
00:33:26,210 --> 00:33:31,190
was going to be good for people likewise

807
00:33:29,480 --> 00:33:33,230
the vast majority of alternative

808
00:33:31,190 --> 00:33:35,509
medicine practitioners crystal sellers

809
00:33:33,230 --> 00:33:38,029
and other assorted were peddlers strike

810
00:33:35,509 --> 00:33:41,569
me as genuinely wanting to and believing

811
00:33:38,029 --> 00:33:43,789
that they are doing good does this

812
00:33:41,569 --> 00:33:46,129
excuse the fact that their practices are

813
00:33:43,789 --> 00:33:49,099
not based on solid scientific evidence

814
00:33:46,130 --> 00:33:50,960
well not at all I feel that everybody

815
00:33:49,099 --> 00:33:52,929
has a responsibility not to spread

816
00:33:50,960 --> 00:33:55,009
misinformation on pseudoscience

817
00:33:52,930 --> 00:33:56,810
particularly when such can cause people

818
00:33:55,009 --> 00:33:59,299
to forego evidence-based medical

819
00:33:56,809 --> 00:34:02,210
assistance or advice be seriously out of

820
00:33:59,299 --> 00:34:06,470
pocket buying magic beans or place faith

821
00:34:02,210 --> 00:34:08,510
in myths rather than facts however I

822
00:34:06,470 --> 00:34:09,920
still try to remain charitable in

823
00:34:08,510 --> 00:34:11,900
dealing with people who make these

824
00:34:09,920 --> 00:34:14,900
claims they're really made with

825
00:34:11,900 --> 00:34:16,610
malicious intent likewise I hope that

826
00:34:14,900 --> 00:34:18,320
people are able to understand that when

827

00:34:16,610 --> 00:34:20,000
we questioned their claims and asked for

828
00:34:18,320 --> 00:34:23,660
evidence we're not doing so to be

829
00:34:20,000 --> 00:34:25,699
malicious smug or dogmatic anyhow I

830
00:34:23,659 --> 00:34:27,859
think that it's worth keeping an eye out

831
00:34:25,699 --> 00:34:30,109
when you're passing by shop windows or

832
00:34:27,860 --> 00:34:31,970
public notice boards particularly in

833
00:34:30,110 --> 00:34:34,220
areas with higher concentrations of

834
00:34:31,969 --> 00:34:36,480
alternative lifestyles alternative

835
00:34:34,219 --> 00:34:38,459
practitioners and the like

836
00:34:36,480 --> 00:34:40,289
it can make for a good opportunity to

837
00:34:38,460 --> 00:34:42,720
keep on top of the sorts of claims being

838
00:34:40,289 --> 00:34:45,449
made and prompt some interesting fact

839
00:34:42,719 --> 00:34:47,849
finding and discussion for more evidence

840
00:34:45,449 --> 00:34:50,699
please you can find my blog at evidence

841
00:34:47,849 --> 00:34:52,769

please net evidence please is also on

842

00:34:50,699 --> 00:34:57,138

Facebook and you can contact me on

843

00:34:52,769 --> 00:34:57,139

twitter at joe alabaster

844

00:35:09,019 --> 00:35:13,820

having a baby is a very special

845

00:35:11,000 --> 00:35:15,650

experience for any young parent but

846

00:35:13,820 --> 00:35:18,230

imagine what it would be like to live

847

00:35:15,650 --> 00:35:20,869

with the fear that at any time that baby

848

00:35:18,230 --> 00:35:24,079

could become seriously ill and even die

849

00:35:20,869 --> 00:35:26,389

from preventable disease this was the

850

00:35:24,079 --> 00:35:28,400

everyday reality for our grandparents

851

00:35:26,389 --> 00:35:31,279

and the countless generations before

852

00:35:28,400 --> 00:35:33,200

them the vaccination chronicles is a

853

00:35:31,280 --> 00:35:36,170

documentary film by Richard Saunders

854

00:35:33,199 --> 00:35:38,839

with stories from real people who know

855

00:35:36,170 --> 00:35:40,909

firsthand what it's like to see family

856
00:35:38,840 --> 00:35:44,600
members suffer from diseases we hardly

857
00:35:40,909 --> 00:35:46,789
hear about today it's a powerful message

858
00:35:44,599 --> 00:35:49,639
for today's parents wondering about

859
00:35:46,789 --> 00:35:52,309
vaccinating their own children the

860
00:35:49,639 --> 00:35:54,859
documentary is free to view and show in

861
00:35:52,309 --> 00:35:58,009
public without seeking permission just

862
00:35:54,860 --> 00:36:01,039
google the vaccination chronicles for

863
00:35:58,010 --> 00:36:04,130
the youtube link you can also order the

864
00:36:01,039 --> 00:36:06,400
DVD of the documentary autographed by

865
00:36:04,130 --> 00:36:09,200
Richard Saunders for only twelve dollars

866
00:36:06,400 --> 00:36:12,500
this covers production and postage to

867
00:36:09,199 --> 00:36:15,319
anywhere in the world the DVD includes

868
00:36:12,500 --> 00:36:17,690
extra interviews archival newspaper

869
00:36:15,320 --> 00:36:22,370
reports and other features from the

870
00:36:17,690 --> 00:36:24,099
1940s and 1950s the artwork for the DVD

871
00:36:22,369 --> 00:36:32,539
in the cover are included on the DVD

872
00:36:24,099 --> 00:36:35,420
itself just visit w WX on TV to order

873
00:36:32,539 --> 00:36:38,029
your copy once you have the DVD it's

874
00:36:35,420 --> 00:36:41,000
your job to copy it and pass it along to

875
00:36:38,030 --> 00:36:43,700
as many people as you wish they in turn

876
00:36:41,000 --> 00:36:46,099
are encouraged to do the same the

877
00:36:43,699 --> 00:36:49,449
vaccination chronicles a must-see for

878
00:36:46,099 --> 00:36:49,449
all today's parents

879
00:36:57,269 --> 00:37:02,409
welcome to a week in science from our

880
00:36:59,710 --> 00:37:04,869
iOS bringing you the science you need to

881
00:37:02,409 --> 00:37:07,440
know if your reality could use a few

882
00:37:04,869 --> 00:37:09,699
improvements why not augment it

883
00:37:07,440 --> 00:37:11,829
augmented reality is an emerging

884

00:37:09,699 --> 00:37:17,649
technology that's here to inform guide

885
00:37:11,829 --> 00:37:20,199
and entertain us in the real world when

886
00:37:17,650 --> 00:37:22,809
you think about real experiences virtual

887
00:37:20,199 --> 00:37:25,389
reality probably comes to mind but why

888
00:37:22,809 --> 00:37:27,309
create a virtual reality when you could

889
00:37:25,389 --> 00:37:30,219
simply adjust the world in which you

890
00:37:27,309 --> 00:37:33,309
live all you need for augmented reality

891
00:37:30,219 --> 00:37:35,889
is a camera and a display then you can

892
00:37:33,309 --> 00:37:38,679
add elements even interactive elements

893
00:37:35,889 --> 00:37:40,329
to a real world view smartphones and

894
00:37:38,679 --> 00:37:43,299
tablets are the obvious device for

895
00:37:40,329 --> 00:37:46,000
augmented reality using GPS or other

896
00:37:43,300 --> 00:37:48,010
landmarks augmented reality apps can

897
00:37:46,000 --> 00:37:50,730
help you navigate give you useful

898
00:37:48,010 --> 00:37:54,010

information or change your surroundings

899

00:37:50,730 --> 00:37:56,980

what about a dedicated display you could

900

00:37:54,010 --> 00:37:59,410

have unobtrusive glasses or a futuristic

901

00:37:56,980 --> 00:38:03,659

headset either way this type of

902

00:37:59,409 --> 00:38:07,059

augmented reality can change your world

903

00:38:03,659 --> 00:38:08,440

as you can expect the commercial

904

00:38:07,059 --> 00:38:11,610

applications have been well and truly

905

00:38:08,440 --> 00:38:14,380

noticed advertisements can come to life

906

00:38:11,610 --> 00:38:16,900

leaping from the page or screen to offer

907

00:38:14,380 --> 00:38:19,030

more information and content or show a

908

00:38:16,900 --> 00:38:20,740

preview and trying on clothing and

909

00:38:19,030 --> 00:38:23,320

accessories might be a thing of the past

910

00:38:20,739 --> 00:38:26,289

so if changing reality takes your fancy

911

00:38:23,320 --> 00:38:31,150

here's for fast facts about augmented

912

00:38:26,289 --> 00:38:33,730

reality the very first augmented reality

913
00:38:31,150 --> 00:38:37,570
head mounted display was developed at

914
00:38:33,730 --> 00:38:40,240
Harvard University in 1968 but the term

915
00:38:37,570 --> 00:38:42,940
augmented reality wasn't coined until

916
00:38:40,239 --> 00:38:45,159
nineteen ninety Google started beta

917
00:38:42,940 --> 00:38:49,389
testing their augmented reality headset

918
00:38:45,159 --> 00:38:51,460
Google glass in 2013 and researchers in

919
00:38:49,389 --> 00:38:54,400
the US are developing a way to display

920
00:38:51,460 --> 00:38:55,840
information directly to the retina it

921
00:38:54,400 --> 00:38:57,700
would look like the information was

922
00:38:55,840 --> 00:39:00,070
floating in front of you

923
00:38:57,699 --> 00:39:03,159
that's it for this week in science for

924
00:39:00,070 --> 00:39:08,470
more information on augmented reality go

925
00:39:03,159 --> 00:39:12,009
to the RI oh's website RI aus org dot a

926
00:39:08,469 --> 00:39:14,859
you follow us on twitter and our IRS and

927
00:39:12,010 --> 00:39:29,710
like us on facebook I'm Tanya Meyer and

928
00:39:14,860 --> 00:39:31,840
we'll catch you next week on Maynard com

929
00:39:29,710 --> 00:39:34,150
dono you we should call for a sound

930
00:39:31,840 --> 00:39:35,769
effects solo this is where Tim gives me

931
00:39:34,150 --> 00:39:38,050
a couple of hours worked by getting a

932
00:39:35,769 --> 00:39:41,409
sound effect solo together Tim call for

933
00:39:38,050 --> 00:39:45,600
a sound effect solo a pussycat firing a

934
00:39:41,409 --> 00:39:45,599
machine gun at a bucket of water

935
00:39:51,030 --> 00:39:57,400
there you go Tim oh man you managed to

936
00:39:54,820 --> 00:40:02,190
find that who knew someone had recorded

937
00:39:57,400 --> 00:40:02,190
that on Manor calmed are you hey you

938
00:40:11,969 --> 00:40:26,529
it's the raw skeptic report with Heidi

939
00:40:15,969 --> 00:40:29,368
Robertson hello everyone on Tuesday

940
00:40:26,530 --> 00:40:33,240
afternoon this week March seventeenth

941

00:40:29,369 --> 00:40:36,490
Riley John Hughes at just four weeks old

942
00:40:33,239 --> 00:40:38,858
died from pertussis commonly known as

943
00:40:36,489 --> 00:40:42,729
whooping cough in Princess Margaret

944
00:40:38,858 --> 00:40:44,858
Hospital in Perth Riley was too young to

945
00:40:42,730 --> 00:40:47,199
have had his first pertussis vaccine

946
00:40:44,858 --> 00:40:50,650
which is given between six to eight

947
00:40:47,199 --> 00:40:52,348
weeks of age his is the first death from

948
00:40:50,650 --> 00:40:57,700
whooping cough in western australia

949
00:40:52,349 --> 00:41:00,609
since 2011 despite enduring an

950
00:40:57,699 --> 00:41:03,009
unimaginable loss Riley's mum and dad

951
00:41:00,608 --> 00:41:05,739
have set up a Facebook page called light

952
00:41:03,010 --> 00:41:09,359
for Riley in order to raise awareness of

953
00:41:05,739 --> 00:41:11,769
this dreadful disease Riley's dad says

954
00:41:09,358 --> 00:41:14,409
due to the significant media attention

955
00:41:11,769 --> 00:41:17,170

that the tragic passing of our beloved

956

00:41:14,409 --> 00:41:20,108

son has drawn we've established this

957

00:41:17,170 --> 00:41:22,780

page what will come from it yet I'm not

958

00:41:20,108 --> 00:41:24,880

entirely sure we're desperate to ensure

959

00:41:22,780 --> 00:41:27,369

the passing of our child has not been in

960

00:41:24,880 --> 00:41:29,260

vain and to try and assist other

961

00:41:27,369 --> 00:41:33,269

families who may be potentially

962

00:41:29,260 --> 00:41:35,980

suffering from similar circumstances on

963

00:41:33,269 --> 00:41:37,659

Thursday the nineteenth of March The

964

00:41:35,980 --> 00:41:43,269

Daily Telegraph published the following

965

00:41:37,659 --> 00:41:45,879

exclusive report quote free vaccine for

966

00:41:43,269 --> 00:41:48,730

pregnant mums to beat deadly whooping

967

00:41:45,880 --> 00:41:51,010

cough every pregnant woman in New South

968

00:41:48,730 --> 00:41:53,019

Wales will receive a free whooping cough

969

00:41:51,010 --> 00:41:55,330

vaccine the new south wales government

970
00:41:53,019 --> 00:41:58,509
has announced in response to the latest

971
00:41:55,329 --> 00:42:00,969
infant death Health Minister Jillian

972
00:41:58,510 --> 00:42:03,220
Skinner announced the move exclusively

973
00:42:00,969 --> 00:42:04,209
to the Daily Telegraph after news broke

974
00:42:03,219 --> 00:42:06,399
that for

975
00:42:04,210 --> 00:42:09,730
cold Riley Hughes died on Tuesday in

976
00:42:06,400 --> 00:42:11,710
Perth New South Wales will offer these

977
00:42:09,730 --> 00:42:13,539
vaccines to all pregnant women in New

978
00:42:11,710 --> 00:42:15,429
South Wales in their third trimester

979
00:42:13,539 --> 00:42:17,259
free of charge and we are currently

980
00:42:15,429 --> 00:42:19,389
awaiting new guidelines from the

981
00:42:17,260 --> 00:42:22,180
National Health and Medical Research

982
00:42:19,389 --> 00:42:25,690
Council in order to progress miss

983
00:42:22,179 --> 00:42:27,250
Skinner said health experts fear

984

00:42:25,690 --> 00:42:29,858

Australia is on the verge of another

985

00:42:27,250 --> 00:42:32,139

whooping cough epidemic with numbers up

986

00:42:29,858 --> 00:42:35,348

three hundred percent on last year's

987

00:42:32,139 --> 00:42:37,509

figures the daily and sunday telegraph's

988

00:42:35,349 --> 00:42:40,420

have been campaigning through the no job

989

00:42:37,510 --> 00:42:43,060

no play campaign to raise vaccination

990

00:42:40,420 --> 00:42:45,190

rates in New South Wales there have been

991

00:42:43,059 --> 00:42:46,869

two thousand eight hundred and ninety

992

00:42:45,190 --> 00:42:51,400

three cases of whooping cough in

993

00:42:46,869 --> 00:42:54,338

Australia so far this year with 1221 of

994

00:42:51,400 --> 00:42:56,139

those in New South Wales the new

995

00:42:54,338 --> 00:42:58,269

announcement follows Victoria and

996

00:42:56,139 --> 00:43:00,190

Queensland lead to offer the free

997

00:42:58,269 --> 00:43:03,460

booster to pregnant women in the third

998

00:43:00,190 --> 00:43:05,800
trimester previously babies have been

999
00:43:03,460 --> 00:43:08,619
given the vaccine at six weeks for

1000
00:43:05,800 --> 00:43:10,060
months and six months but a booster

1001
00:43:08,619 --> 00:43:12,280
given in the last trimester of pregnancy

1002
00:43:10,059 --> 00:43:15,460
is now thought to offer the best

1003
00:43:12,280 --> 00:43:18,099
protection for newborns professor peter

1004
00:43:15,460 --> 00:43:20,250
mcintyre director national center for

1005
00:43:18,099 --> 00:43:22,720
immunization research and surveillance

1006
00:43:20,250 --> 00:43:26,469
said pregnancy shots were offered in the

1007
00:43:22,719 --> 00:43:29,799
UK in 2012 after a spate of baby deaths

1008
00:43:26,469 --> 00:43:33,098
and as a result numbers decreased by

1009
00:43:29,800 --> 00:43:35,589
ninety percent director of communicable

1010
00:43:33,099 --> 00:43:38,320
disease branch of New South Wales health

1011
00:43:35,588 --> 00:43:42,969
dr. Vickie Shepherd said New South Wales

1012
00:43:38,320 --> 00:43:45,250

was do another peak after 2 2009 to 2012

1013

00:43:42,969 --> 00:43:48,669
outbreak that claimed the lives of two

1014

00:43:45,250 --> 00:43:50,588
new south wales babies we've been

1015

00:43:48,670 --> 00:43:52,420
watching very closely with the numbers

1016

00:43:50,588 --> 00:43:55,539
rising each month and we haven't had a

1017

00:43:52,420 --> 00:43:59,650
peak since 2011 so we are due for

1018

00:43:55,539 --> 00:44:02,019
another dr. Shepherd said end quote the

1019

00:43:59,650 --> 00:44:04,300
vaccine in the third trimester has a

1020

00:44:02,019 --> 00:44:07,269
couple of advantages both for the baby

1021

00:44:04,300 --> 00:44:09,130
and the mother the mother is afforded

1022

00:44:07,269 --> 00:44:11,679
some protection from contracting the

1023

00:44:09,130 --> 00:44:13,660
disease herself and in having the

1024

00:44:11,679 --> 00:44:16,449
vaccine in the later stages of the third

1025

00:44:13,659 --> 00:44:17,440
trimester she also passes a good level

1026

00:44:16,449 --> 00:44:19,568
of protection

1027
00:44:17,440 --> 00:44:22,358
the disease across the placenta to the

1028
00:44:19,568 --> 00:44:24,849
baby hopefully enough to last them until

1029
00:44:22,358 --> 00:44:29,108
they can receive their first vaccine at

1030
00:44:24,849 --> 00:44:31,750
six to eight weeks of age bringing back

1031
00:44:29,108 --> 00:44:34,659
this vaccine free in the wake of Riley's

1032
00:44:31,750 --> 00:44:36,929
tragic death is very positive news for

1033
00:44:34,659 --> 00:44:39,519
families across New South Wales

1034
00:44:36,929 --> 00:44:42,098
Queensland and Victoria already have

1035
00:44:39,519 --> 00:44:44,289
this initiative in place and on Friday

1036
00:44:42,099 --> 00:44:47,410
western australia announced they too

1037
00:44:44,289 --> 00:44:49,300
will be bringing it in let's hope the

1038
00:44:47,409 --> 00:44:51,909
rest of the states and territories now

1039
00:44:49,300 --> 00:44:54,369
follow suit and recognize the latest

1040
00:44:51,909 --> 00:44:56,618
research and evidence supporting

1041
00:44:54,369 --> 00:45:00,849
pertussis vaccination in the third

1042
00:44:56,619 --> 00:45:04,890
trimester of pregnancy at the northern

1043
00:45:00,849 --> 00:45:11,859
rivers vaccination supporters website

1044
00:45:04,889 --> 00:45:14,199
wwn rvs info we have Novak's no visit

1045
00:45:11,858 --> 00:45:16,679
Flyers you can print out for anyone who

1046
00:45:14,199 --> 00:45:20,019
wants them who is expecting a new baby

1047
00:45:16,679 --> 00:45:22,029
these remind family and friends to get

1048
00:45:20,019 --> 00:45:25,539
up to date with their boosters prior to

1049
00:45:22,030 --> 00:45:28,180
visiting a new baby just go to the

1050
00:45:25,539 --> 00:45:30,670
resources tab on the website to print

1051
00:45:28,179 --> 00:45:38,710
out either a color or black-and-white

1052
00:45:30,670 --> 00:45:40,980
version that's ww nrvs info thanks

1053
00:45:38,710 --> 00:45:40,980
everyone

1054
00:45:59,239 --> 00:46:04,769
thank you for listening to the skeptic

1055

00:46:01,980 --> 00:46:06,929
zone and as I said at the top of the

1056
00:46:04,769 --> 00:46:09,030
show I hope Sydney people i hope i can

1057
00:46:06,929 --> 00:46:11,849
meet you at the australian skeptics

1058
00:46:09,030 --> 00:46:14,720
dinner meeting on the twenty-eighth of

1059
00:46:11,849 --> 00:46:17,519
march the ride eastwood leagues club

1060
00:46:14,719 --> 00:46:20,609
with our special guest dr. brad Makai

1061
00:46:17,519 --> 00:46:23,880
talking about embarrassing bodies and

1062
00:46:20,610 --> 00:46:27,510
medical madness promises to be a great

1063
00:46:23,880 --> 00:46:30,539
evening head to ww skeptics comdata you

1064
00:46:27,510 --> 00:46:33,060
to get your ticket and thanks to joe

1065
00:46:30,539 --> 00:46:36,000
alabaster Heidi Robertson and a special

1066
00:46:33,059 --> 00:46:38,610
guest Ian Bryce for helping to put

1067
00:46:36,000 --> 00:46:40,289
together this week's episode Ian Bryce

1068
00:46:38,610 --> 00:46:43,050
is such an interesting man my friends

1069
00:46:40,289 --> 00:46:45,900

he's been a skeptical activist and

1070

00:46:43,050 --> 00:46:47,610

investigator for many many years and he

1071

00:46:45,900 --> 00:46:50,010

knows his electronics and his

1072

00:46:47,610 --> 00:46:52,590

engineering and his physics inside out I

1073

00:46:50,010 --> 00:46:54,810

always go to him when I have these sort

1074

00:46:52,590 --> 00:46:56,579

of questions thank you to those people

1075

00:46:54,809 --> 00:46:58,199

who have been commenting on the videos

1076

00:46:56,579 --> 00:47:01,559

that we've been posting up on the

1077

00:46:58,199 --> 00:47:04,319

skeptics own Facebook page didn't do one

1078

00:47:01,559 --> 00:47:06,299

this week because I didn't seem a nerd I

1079

00:47:04,320 --> 00:47:08,309

didn't see Joe and it's more fun to do

1080

00:47:06,300 --> 00:47:10,170

it with a colleague I think but enough

1081

00:47:08,309 --> 00:47:12,409

people like those little video so I

1082

00:47:10,170 --> 00:47:14,970

think what will keep turning them out

1083

00:47:12,409 --> 00:47:17,699

coming up in the coming weeks on the

1084
00:47:14,969 --> 00:47:21,449
skeptic zone I hope to bring you news

1085
00:47:17,699 --> 00:47:24,419
about a more formal test of the premium

1086
00:47:21,449 --> 00:47:26,189
wine card yes the wine car do you rub

1087
00:47:24,420 --> 00:47:28,470
the card against the glass of wine and

1088
00:47:26,190 --> 00:47:31,079
it magically tastes better well that's

1089
00:47:28,469 --> 00:47:33,569
the claim anyway and Australian skeptics

1090
00:47:31,079 --> 00:47:36,119
are going to put this too am a rigorous

1091
00:47:33,570 --> 00:47:38,039
scientific test a couple of weeks ago on

1092
00:47:36,119 --> 00:47:39,569
the skeptic zone we had a fun test with

1093
00:47:38,039 --> 00:47:43,440
wine card at skeptics in the pub in

1094
00:47:39,570 --> 00:47:45,780
Sydney where people got to try out the

1095
00:47:43,440 --> 00:47:48,480
card for themselves pretty soon we'll be

1096
00:47:45,780 --> 00:47:52,680
doing a proper rigorous test will the

1097
00:47:48,480 --> 00:47:56,610
wine card work well if I was a betting

1098
00:47:52,679 --> 00:47:58,259
man hmm and thank you for those people

1099
00:47:56,610 --> 00:48:02,220
of course who contribute to the skeptic

1100
00:47:58,260 --> 00:48:03,660
zone via paypal its skeptic zone TV your

1101
00:48:02,219 --> 00:48:06,088
contributions are not only

1102
00:48:03,659 --> 00:48:09,088
they're actually needed to help to keep

1103
00:48:06,088 --> 00:48:13,078
show going so we do thank you very much

1104
00:48:09,088 --> 00:48:15,088
and before I go if you are listen to the

1105
00:48:13,079 --> 00:48:16,530
skeptics guide to the universe podcast

1106
00:48:15,088 --> 00:48:18,538
with my friends from the skeptics guide

1107
00:48:16,530 --> 00:48:20,760
you would have heard me as a guest rogue

1108
00:48:18,539 --> 00:48:22,559
this week if you don't listen to the

1109
00:48:20,760 --> 00:48:24,180
skeptics guide to the universe it might

1110
00:48:22,559 --> 00:48:27,900
be fun to download the latest episode

1111
00:48:24,179 --> 00:48:30,239
the here Mia chip in but for this week

1112

00:48:27,900 --> 00:48:36,869
this is Richard Saunders signing off

1113
00:48:30,239 --> 00:48:38,538
from Sydney Australia you've been

1114
00:48:36,869 --> 00:48:42,030
listening to the skeptics own podcast

1115
00:48:38,539 --> 00:48:45,150
visit our website at wwc a petting zoo

1116
00:48:42,030 --> 00:48:48,990
TV for contacts an archive of all

1117
00:48:45,150 --> 00:48:51,298
episodes since 2008 and our online store

1118
00:48:48,989 --> 00:48:54,019
please support the skeptic zone by

1119
00:48:51,298 --> 00:48:57,030
following us on twitter at skeptic zone

1120
00:48:54,019 --> 00:49:00,088
liking us on facebook and leaving a

1121
00:48:57,030 --> 00:49:02,940
review on iTunes you can also show your

1122
00:49:00,088 --> 00:49:06,420
support by subscribing via paypal for as

1123
00:49:02,940 --> 00:49:08,760
little as 99 cents a week the skeptic

1124
00:49:06,420 --> 00:49:10,470
zone is an independent production the

1125
00:49:08,760 --> 00:49:12,539
views and opinions expressed on the

1126
00:49:10,469 --> 00:49:15,230

skeptic zone and not necessarily those

1127

00:49:12,539 --> 00:49:19,039

of Australian skeptically or any other

1128

00:49:15,230 --> 00:49:19,039

skeptical organization