



1
00:00:08,720 --> 00:00:02,780
and so she ordered some green clay from

2
00:00:12,530 --> 00:00:08,730
France and I began treating brouilly

3
00:00:16,220 --> 00:00:12,540
ulcer with it and this is very low-tech

4
00:00:21,140 --> 00:00:16,230
cure but very effective all you need is

5
00:00:27,230 --> 00:00:21,150
the a spatula squeeze bottle some

6
00:00:30,230 --> 00:00:27,240
bandages and the right kind of clay so

7
00:00:35,569 --> 00:00:30,240
here's a picture of day 1 of a treatment

8
00:00:38,510 --> 00:00:35,579
of one of the children she actually had

9
00:00:42,229 --> 00:00:38,520
over a hundred cures the only other cure

10
00:00:46,250 --> 00:00:42,239
being amputation she and she documented

11
00:00:52,279 --> 00:00:46,260
with these photos this is day two of the

12
00:00:55,700 --> 00:00:52,289
clay treatment and a 103 of the clay

13
00:00:57,500 --> 00:00:55,710

treatment so over 100 cures the World

14

00:01:00,529 --> 00:00:57,510

Health Organization which she took these

15

00:01:02,000 --> 00:01:00,539

photos to said well didn't get excited

16

00:01:04,820 --> 00:01:02,010

about it said we need to know the

17

00:01:09,350 --> 00:01:04,830

mechanism behind this before we can get

18

00:01:16,380 --> 00:01:09,360

excited here's how she used the split

19

00:01:22,270 --> 00:01:19,300

this is thought to be spread by a water

20

00:01:24,810 --> 00:01:22,280

bug that bites mainly women and children

21

00:01:28,480 --> 00:01:24,820

who go out and forage in the swamps and

22

00:01:30,460 --> 00:01:28,490

people would get and it can incubate for

23

00:01:33,070 --> 00:01:30,470

like five years before it finally comes

24

00:01:35,410 --> 00:01:33,080

out as a pimple which then the flesh

25

00:01:37,960 --> 00:01:35,420

starts falling off of it's not painful

26
00:01:41,050 --> 00:01:37,970
but putting when once you put the clay

27
00:01:45,510 --> 00:01:41,060
on it then it didn't become painful hmm

28
00:01:47,710 --> 00:01:45,520
so her son came to this country and

29
00:01:50,410 --> 00:01:47,720
tried to get some interest among clay

30
00:01:52,180 --> 00:01:50,420
scientists I was one but the main one

31
00:01:54,249 --> 00:01:52,190
was Linda Williams at Arizona State

32
00:01:55,540 --> 00:01:54,259
University who really took it up and

33
00:01:58,630 --> 00:01:55,550
started experimenting with different

34
00:02:03,880 --> 00:01:58,640
clays to try to figure out how they had

35
00:02:05,469 --> 00:02:03,890
this antibacterial potential and one of

36
00:02:09,130 --> 00:02:05,479
the way she did this is a the least

37
00:02:13,090 --> 00:02:09,140
sophisticated test but you can see the

38
00:02:14,650 --> 00:02:13,100

initial petri dish there and then that

39

00:02:18,250 --> 00:02:14,660
was incubated and then she added

40

00:02:20,380 --> 00:02:18,260
different kinds of clay to it and you

41

00:02:23,400 --> 00:02:20,390
can see the clay sometimes helped growth

42

00:02:30,130 --> 00:02:23,410
but the egregore clay killed everything

43

00:02:32,199 --> 00:02:30,140
and this was the clay from France so she

44

00:02:35,160 --> 00:02:32,209
began testing a lot of different clays

45

00:02:41,920 --> 00:02:35,170
and found that about 10 percent of them

46

00:02:43,479 --> 00:02:41,930
showed antibacterial action here's the

47

00:02:48,370 --> 00:02:43,489
killing efficiency of some of the

48

00:02:54,310 --> 00:02:48,380
antibacterial clays notice mersa falls

49

00:02:56,259 --> 00:02:54,320
on this list that egregore just after 28

50

00:03:00,940 --> 00:02:56,269
days it showed some activity against a

51
00:03:03,720 --> 00:03:00,950
certain bacteria the best clay that we

52
00:03:10,680 --> 00:03:03,730
found is that otm clay which is from

53
00:03:19,050 --> 00:03:16,110
the Agra Argyl each clay was the was was

54
00:03:21,180 --> 00:03:19,060
another French green clay and she wrote

55
00:03:23,310 --> 00:03:21,190
for more sample of that and tested it

56
00:03:24,750 --> 00:03:23,320
and it didn't work anymore so it

57
00:03:29,250 --> 00:03:24,760
probably came from a different part of

58
00:03:33,150 --> 00:03:29,260
the deposit or maybe the antibacterial

59
00:03:36,600 --> 00:03:33,160
clay was used up so became necessary to

60
00:03:42,150 --> 00:03:36,610
know how to identify these antibacterial

61
00:03:45,120 --> 00:03:42,160
clays so here's some TEM and e-coli

62
00:03:47,880 --> 00:03:45,130
after critical point drying the one of

63
00:03:50,520 --> 00:03:47,890

the one is after an hour treatment with

64

00:03:53,970 --> 00:03:50,530

the Oregon clay you can see the cell

65

00:03:55,920 --> 00:03:53,980

wall is intact but after 24 hours the

66

00:03:59,030 --> 00:03:55,930

cell wall is still intact but there are

67

00:04:01,470 --> 00:03:59,040

all these voids inside the bacteria

68

00:04:07,650 --> 00:04:01,480

killing the bacteria or rendering it

69

00:04:11,310 --> 00:04:07,660

ineffective it was up to

70

00:04:13,440 --> 00:04:11,320

Linda's student Keith Morrison to really

71

00:04:15,479 --> 00:04:13,450

figure out what was going on using this

72

00:04:16,920 --> 00:04:15,489

very high-tech instrument that's only

73

00:04:20,130 --> 00:04:16,930

found in a few departments across the

74

00:04:24,450 --> 00:04:20,140

country called the nano Sims and on the

75

00:04:26,400 --> 00:04:24,460

left there is ecoli napped for the

76

00:04:29,670 --> 00:04:26,410

carbon so you can see the bacteria

77

00:04:33,900 --> 00:04:29,680

pretty clearly there the one next to it

78

00:04:35,760 --> 00:04:33,910

and yellow is aluminum and then red is

79

00:04:37,740 --> 00:04:35,770

iron and you can see the aluminum sort

80

00:04:40,760 --> 00:04:37,750

of concentrates around the edge of the

81

00:04:44,700 --> 00:04:40,770

bacteria and the iron in the interior

82

00:04:50,970 --> 00:04:44,710

and then this is what really opened

83

00:04:53,850 --> 00:04:50,980

things up see the up upper curve is for

84

00:04:58,010 --> 00:04:53,860

carbon and you can see where the cell is

85

00:05:00,090 --> 00:04:58,020

and the extracellular material this is a

86

00:05:03,630 --> 00:05:00,100

transect going across one of the

87

00:05:07,020 --> 00:05:03,640

bacteria you can see the arrow and the

88

00:05:09,300 --> 00:05:07,030

middle picture so there's the carbon and

89

00:05:11,610 --> 00:05:09,310

the aluminum is in yellow and you can

90

00:05:15,600 --> 00:05:11,620

see that that's concentrated in the cell

91

00:05:19,110 --> 00:05:15,610

wall and the iron is concentrated in the

92

00:05:22,200 --> 00:05:19,120

cytoplasm in the center of the cell

93

00:05:24,180 --> 00:05:22,210

and although the concentration of

94

00:05:27,270 --> 00:05:24,190

aluminum and iron was not sufficient to

95

00:05:29,670 --> 00:05:27,280

alone to kill the bacteria working

96

00:05:33,600 --> 00:05:29,680

together in this synergistic way the

97

00:05:37,740 --> 00:05:33,610

aluminum caused miss folding of the of

98

00:05:40,770 --> 00:05:37,750

the proteins in the cell wall and the

99

00:05:42,930 --> 00:05:40,780

iron entered into the cell and through

100

00:05:45,600 --> 00:05:42,940

various complex reactions including the

101

00:05:48,450 --> 00:05:45,610

Haberer Weiss reaction the Fenton

102

00:05:53,480 --> 00:05:48,460

reaction and so on it transformed from

103

00:05:58,350 --> 00:05:53,490

Fe 2 plus and 2 Fe 3 plus releasing

104

00:06:02,520 --> 00:05:58,360

peroxide and causing Oh H radicals to

105

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

form which destroyed the cell so the

106

00:06:06,990 --> 00:06:04,720

main thing is to mobilize aluminum and

107

00:06:09,689 --> 00:06:07,000

iron and here's a solubility curve for

108

00:06:12,420 --> 00:06:09,699

aluminum and that you can see it's a

109

00:06:16,439 --> 00:06:12,430

function of pH and so you have to get to

110

00:06:19,620 --> 00:06:16,449

a low pH or high pH to mobilize aluminum

111

00:06:21,779 --> 00:06:19,630

and iron has much the same curve so

112

00:06:24,300 --> 00:06:21,789

working this out the requirements for an

113

00:06:26,850 --> 00:06:24,310

anti bacterial clay our source for iron

114

00:06:30,930 --> 00:06:26,860

this is sometimes the mineral pyrite or

115

00:06:33,300 --> 00:06:30,940

fool's gold source for aluminum which is

116

00:06:35,610 --> 00:06:33,310

clay or feldspar and you have to knead

117

00:06:37,770 --> 00:06:35,620

it need a pH below 4.2 to really

118

00:06:40,980 --> 00:06:37,780

mobilize iron in aluminum so that

119

00:06:44,250 --> 00:06:40,990

they're soluble and can enter and enter

120

00:06:47,339 --> 00:06:44,260

into the bacteria and he H how much

121

00:06:50,070 --> 00:06:47,349

oxygen is in the system of 450 to 800

122

00:06:52,890 --> 00:06:50,080

millivolts this stabilizes fe 2 plus

123

00:06:56,040 --> 00:06:52,900

which is the soluble form of iron which

124

00:06:59,189 --> 00:06:56,050

enters into the cell and transforms into

125

00:07:01,290 --> 00:06:59,199

fe 3 plus gets oxidized and a swelling

126

00:07:05,339 --> 00:07:01,300

clay which buffers the chemistry of the

127

00:07:07,469 --> 00:07:05,349

system here's a deposit where the clay

128

00:07:09,480 --> 00:07:07,479

is it's across the hall

129

00:07:12,480 --> 00:07:09,490

we hope you'll all take a sample of it

130

00:07:15,060 --> 00:07:12,490

and try it out and let me know what

131

00:07:18,089 --> 00:07:15,070

happened we don't have FDA approval or

132

00:07:21,210 --> 00:07:18,099

anything this is to experiment on

133

00:07:22,890 --> 00:07:21,220

yourself and let me know you know lots

134

00:07:26,250 --> 00:07:22,900

of people friends of mine have tried it

135

00:07:28,740 --> 00:07:26,260

with very good results but this shows

136

00:07:29,839 --> 00:07:28,750

the deposit up at the top the brownish

137

00:07:32,779 --> 00:07:29,849

stuff is

138

00:07:35,239 --> 00:07:32,789

a Pleistocene sediment from glaciers and

139

00:07:37,909 --> 00:07:35,249

then the reddish stuff below that is

140

00:07:41,809 --> 00:07:37,919

completely oxidized clay where there's

141

00:07:43,519 --> 00:07:41,819

it does it's in not antibacterial all of

142

00:07:45,169 --> 00:07:43,529

the iron 2 plus has been converted into

143

00:07:47,689 --> 00:07:45,179

iron three-plus forming the mineral

144

00:07:50,059 --> 00:07:47,699

growth site and then there's a whitish

145

00:07:53,059 --> 00:07:50,069

band right by the where that guy's head

146

00:07:54,949 --> 00:07:53,069

is that doesn't have pyrite in it but

147

00:07:57,829 --> 00:07:54,959

it's still antibacterial it creates a

148

00:08:01,519 --> 00:07:57,839

low pH and must have iron on the

149

00:08:03,320 --> 00:08:01,529

exchange sites and iron two-plus on the

150

00:08:06,049 --> 00:08:03,330

exchange sites but the really powerful

151

00:08:08,509 --> 00:08:06,059

stuff is the blue stuff below that but

152

00:08:09,859 --> 00:08:08,519

if you go too deep into the blue stuff

153

00:08:12,019 --> 00:08:09,869

it doesn't work anymore it's not

154

00:08:13,989 --> 00:08:12,029

antibacterial this is because it hasn't

155

00:08:17,059 --> 00:08:13,999

oxidized enough the playwright hasn't

156

00:08:19,489 --> 00:08:17,069

oxidized to form the acid which thence

157

00:08:22,879 --> 00:08:19,499

dissolves and releases Fe 2 plus from

158

00:08:25,009 --> 00:08:22,889

the playwright so in conclusion the

159

00:08:29,259 --> 00:08:25,019

Oregon clay is affected killing a broad

160

00:08:31,820 --> 00:08:29,269

spectrum of pathogenic bacteria x'

161

00:08:33,379 --> 00:08:31,830

experiment with you organ clay with at

162

00:08:38,659 --> 00:08:33,389

your own wrist and report your results

163

00:08:40,459 --> 00:08:38,669

and for more information our website

164

00:08:47,660 --> 00:08:40,469

should be up by now and you could take a

165

00:08:50,250 --> 00:08:47,670

look thanks thank you very much are

166

00:08:52,990 --> 00:08:50,260

there any questions

167

00:08:57,139 --> 00:08:53,000

[Music]

168

00:08:59,569 --> 00:08:57,149

dennis very interesting um so metals are

169

00:09:03,079 --> 00:08:59,579

known to have antibiotic and antiviral

170

00:09:06,410 --> 00:09:03,089

properties most notably colloidal silver

171

00:09:10,129 --> 00:09:06,420

and others is their mechanism it all

172

00:09:11,689 --> 00:09:10,139

related to this you have to get above a

173

00:09:14,900 --> 00:09:11,699

certain level for them to be effective

174

00:09:16,879 --> 00:09:14,910

and this is well below any killing power

175

00:09:19,150 --> 00:09:16,889

for aluminum and iron in the solution

176

00:09:21,590 --> 00:09:19,160

mm-hmm

177

00:09:23,600 --> 00:09:21,600

but it's a synergistic effect of the two

178

00:09:25,490 --> 00:09:23,610

of their kills a bacteria so that is

179

00:09:27,499 --> 00:09:25,500

then something different from clothes

180

00:09:29,689 --> 00:09:27,509

differently and I think bacteria would

181

00:09:33,439 --> 00:09:29,699

have a hard time evolving a resistance

182

00:09:35,870 --> 00:09:33,449

to this type of approach thank you if

183

00:09:37,689 --> 00:09:35,880

the criteria for being taken seriously

184

00:09:40,490 --> 00:09:37,699

is that you figure out the mechanism

185

00:09:41,750 --> 00:09:40,500

then it would seem that you've figured

186

00:09:44,990 --> 00:09:41,760

out the mechanism

187

00:09:48,260 --> 00:09:45,000

and that this mechanism could be used or

188

00:09:50,050 --> 00:09:48,270

created in an artificial way yes in

189

00:09:52,730 --> 00:09:50,060

other words an artificial clay in effect

190

00:09:54,680 --> 00:09:52,740

and that would be a next step to go to

191

00:09:56,900 --> 00:09:54,690

has there been a discussion of that uh

192

00:10:01,220 --> 00:09:56,910

we have on a patent on the artificial

193

00:10:02,570 --> 00:10:01,230

idea you can't patent natural stuff the

194

00:10:04,820 --> 00:10:02,580

natural stuff is cheap and readily

195

00:10:06,500 --> 00:10:04,830

available and so I'd like to see that

196

00:10:08,990 --> 00:10:06,510

used in clinical studies but we've been

197

00:10:10,370 --> 00:10:09,000

on a able interest anybody in clinical

198

00:10:12,500 --> 00:10:10,380

studies that contacted the World Health

199

00:10:14,450 --> 00:10:12,510

Organization and they referred us to

200

00:10:16,430 --> 00:10:14,460

somebody else who refers to somebody

201

00:10:20,900 --> 00:10:16,440

else there just wasn't much interest

202

00:10:22,700 --> 00:10:20,910

they contacted the mersa experimental

203

00:10:28,250 --> 00:10:22,710

group in Chicago and also they weren't

204

00:10:29,870 --> 00:10:28,260

interested in pursuing so I'm a

205

00:10:31,790 --> 00:10:29,880

clinician I and I have two questions the

206

00:10:34,460 --> 00:10:31,800

first is can we purchase the clay off of

207

00:10:37,010 --> 00:10:34,470

this website I'm sending out free

208

00:10:39,380 --> 00:10:37,020

samples free samples no you can't

209

00:10:41,360 --> 00:10:39,390

purchase in bulk or something uh yeah

210

00:10:44,060 --> 00:10:41,370

there's a place in Oregon where you can

211

00:10:46,370 --> 00:10:44,070

buy it in a big book that's where I got

212

00:10:47,330 --> 00:10:46,380

it from and I can give you that address

213

00:10:49,910 --> 00:10:47,340

okay great

214

00:10:51,440 --> 00:10:49,920

and my second question is so I don't

215

00:10:54,860 --> 00:10:51,450

know if you're familiar I only know it

216

00:10:57,710 --> 00:10:54,870

by its the name used in the stores Tara

217

00:10:59,420 --> 00:10:57,720

Minh yeah that is the clay that NASA

218

00:11:01,070 --> 00:10:59,430

showed that if you take it as a

219

00:11:02,960 --> 00:11:01,080

supplement internally it prevents

220

00:11:05,570 --> 00:11:02,970

osteoporosis and astronauts under

221

00:11:06,920 --> 00:11:05,580

conditions of weightlessness was tara

222

00:11:09,020 --> 00:11:06,930

man looked at as one of the potential

223

00:11:15,500 --> 00:11:09,030

clays that could be antibacterial I

224

00:11:19,190 --> 00:11:15,510

don't know okay I'm also a physician and

225

00:11:23,170 --> 00:11:19,200

I'm wondering if you are familiar with

226

00:11:26,270 --> 00:11:23,180

the therapy called phage therapy R or

227

00:11:28,670 --> 00:11:26,280

bacteria phage therapy because bacteria

228

00:11:32,300 --> 00:11:28,680

phages which are viruses are found in

229

00:11:35,990 --> 00:11:32,310

all soils and research has been done

230

00:11:39,440 --> 00:11:36,000

since the 1920s on these bacteria phages

231

00:11:42,740 --> 00:11:39,450

and it was developed in the early years

232

00:11:45,140 --> 00:11:42,750

prior to antibiotics being developed and

233

00:11:46,210 --> 00:11:45,150

it was used as a an anti bacterial

234

00:11:48,400 --> 00:11:46,220

therapy

235

00:11:49,630 --> 00:11:48,410

and is still being used in Russia as a

236

00:11:51,460 --> 00:11:49,640

so I'm wondering if you're familiar with

237

00:11:53,830 --> 00:11:51,470

that and if there might have been an

238

00:11:56,710 --> 00:11:53,840

effect of the bacteriophages in that

239

00:12:00,820 --> 00:11:56,720

clay soil that's causing an effect as

240

00:12:02,020 --> 00:12:00,830

well as perhaps the metal effects that

241

00:12:04,390 --> 00:12:02,030

you described

242

00:12:05,380 --> 00:12:04,400

yeah I've seen pictures of pages and

243

00:12:09,760 --> 00:12:05,390

they're fantastic

244

00:12:14,050 --> 00:12:09,770

and there are bacteria in this in this

245

00:12:15,790 --> 00:12:14,060

soil they are metal iron loving bacteria

246

00:12:19,150 --> 00:12:15,800

and they have a very different cell wall

247

00:12:22,150 --> 00:12:19,160

and metabolism from pathogenic bacteria

248

00:12:23,950 --> 00:12:22,160

but I don't know if there are phages the

249

00:12:27,670 --> 00:12:23,960

virus system because it's the viruses

250

00:12:29,080 --> 00:12:27,680

that attack the bacteria and that's what

251

00:12:30,910 --> 00:12:29,090

I'm wondering if you looked into the

252

00:12:32,320 --> 00:12:30,920

viruses that were in the soil no we

253

00:12:34,330 --> 00:12:32,330

killed that kill we haven't done

254

00:12:36,400 --> 00:12:34,340

anything with viruses i although I did

255

00:12:39,880 --> 00:12:36,410

try putting this stuff on a couple of

256

00:12:41,260 --> 00:12:39,890

warts I had on my hand and after a few

257

00:12:43,810 --> 00:12:41,270

weeks of treatment the warts went away

258

00:12:45,310 --> 00:12:43,820

with so that's all I know

259

00:12:46,600 --> 00:12:45,320

okay thank you very much very