

1

00:00:00,000 --> 00:00:12,760

On this episode of Mythbusters, it's enough to drive you around the bend.

2

00:00:12,760 --> 00:00:19,460

Our new host gets a hazing, then a blazing as we turn up the heat on the exploding toilet

3

00:00:19,460 --> 00:00:20,460

myth.

4

00:00:20,460 --> 00:00:22,960

He's still holding the sinker.

5

00:00:22,960 --> 00:00:29,400

The clothing gets kinky in the quest to answer an age-old weather mystery and staring down

6

00:00:29,400 --> 00:00:30,400

the barrel.

7

00:00:30,400 --> 00:00:35,400

Adam and Jamie take aim at the myth of the magic bullet.

8

00:00:35,400 --> 00:00:37,400

Who are the Mythbusters?

9

00:00:37,400 --> 00:00:39,400

Am I missing an eyebrow?

10

00:00:39,400 --> 00:00:41,400

Adam Savage.

11

00:00:41,400 --> 00:00:44,400

I always enjoyed seeing Adam in pain.

12

00:00:44,400 --> 00:00:45,400

Oh!

13

00:00:45,400 --> 00:00:46,400

And Jamie Heineman.

14

00:00:46,400 --> 00:00:49,400

Jamie wants a big boom.

15

00:00:49,400 --> 00:00:53,400

Between them, more than 30 years special effects experience.

16

00:00:53,400 --> 00:00:54,400

You're kind of sexy.

17

00:00:54,400 --> 00:00:57,400

They don't just tell the myths.

18

00:00:57,400 --> 00:00:58,400

They're a well-cruel world.

19

00:00:58,400 --> 00:01:05,400

They put them to the test.

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00:01:05,400 --> 00:01:18,400

Now apparently somebody dumped some combustibles down a toilet, you know, bug spray, gasoline.

21

00:01:18,400 --> 00:01:21,400

There's a number of different variations on this myth.

22

00:01:21,400 --> 00:01:27,400

At which point her husband comes into the bathroom, sits down, has a cigarette, puts

23

00:01:27,400 --> 00:01:34,400

the cigarette out between his legs into the toilet, and it explodes, burning his sensitive

24

00:01:34,400 --> 00:01:35,400

parts.

25

00:01:35,400 --> 00:01:36,400

Good.

26

00:01:36,400 --> 00:01:38,400

That sounds like a perfect job for the blast chamber.

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00:01:38,400 --> 00:01:42,400

It should be easy for the Mythbusters to get this one in the can.

28

00:01:42,400 --> 00:01:47,400

All they have to do is buy a toilet, dump a range of combustible materials into it,

29

00:01:47,400 --> 00:01:50,400

drop in a lit cigarette, and watch the fireworks.

30

00:01:50,400 --> 00:01:56,400

With your years of experience of exploding toilets and combustible gases, what do you

31

00:01:56,400 --> 00:01:58,400

think the hard part of this experiment is going to be?

32

00:01:58,400 --> 00:02:03,400

I'm trying to think of various ways that we can actually make that toilet blow up.

33

00:02:03,400 --> 00:02:08,400

And, you know, maybe the gasoline or maybe the bug spray will do it, but if not, you

34

00:02:08,400 --> 00:02:10,400

know, there are other things that we can put in there.

35

00:02:10,400 --> 00:02:11,400

Like a grand finale?

36

00:02:11,400 --> 00:02:12,400

Yeah.

37

00:02:12,400 --> 00:02:14,400

One way or another, we're going to blow up that damn toilet.

38

00:02:14,400 --> 00:02:17,400

Okay, good.

39

00:02:17,400 --> 00:02:21,400

First step, down to the local junkyard, on the lookout for a toilet.

40

00:02:21,400 --> 00:02:26,400

Now, you'd imagine that most toilets are pretty much the same, but Jamie's being fussy.

41

00:02:26,400 --> 00:02:28,400

Well, there's less water in the...

42

00:02:28,400 --> 00:02:30,400

This one's too shallow.

43

00:02:30,400 --> 00:02:33,400

The explosive we're going to put in here is heavier than air, so it's going to rest in

44

00:02:33,400 --> 00:02:37,400

the... rest in the bowl, deeper the bowl, the more explosive force we get, the better

45

00:02:37,400 --> 00:02:38,400

the result.

46

00:02:38,400 --> 00:02:40,400

I don't think it really matters.

47

00:02:40,400 --> 00:02:42,400

You know, one toilet's probably as good as the other.

48

00:02:42,400 --> 00:02:44,400

This one doesn't have a top.

49

00:02:45,400 --> 00:02:52,400

Forty bucks later, Adam and Jamie have their toilet.

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00:02:52,400 --> 00:02:57,400

Folkloreist Heather Joseph Witham has seen enough exploding toilet stories to fill a

51

00:02:57,400 --> 00:02:59,400

small outhouse.

52

00:02:59,400 --> 00:03:03,400

This narrative has been around at least since the 1930s, at which point it appeared in news

53

00:03:03,400 --> 00:03:06,400

clippings and newspapers.

54

00:03:06,400 --> 00:03:10,400

The early form of the story was probably some sort of rural gag.

55

00:03:10,400 --> 00:03:14,400

You have the wife of the house going and cleaning out the outhouse with some kind of

56

00:03:14,400 --> 00:03:20,400

kerosene or oil or other kind of volatile fluid, at which point the grandpa goes out

57

00:03:20,400 --> 00:03:25,400

and sits down and lights his pipe, and he gets blown right off the outhouse seat.

58

00:03:25,400 --> 00:03:30,400

And as he's lying there amidst the rubble, he says, it must have been something I ate.

59

00:03:33,400 --> 00:03:38,400

The bottom line is Jamie plans to be sitting on the toilet when it goes up, so he'll need

60

00:03:38,400 --> 00:03:40,400

more than his trusty beret.

61

00:03:40,400 --> 00:03:44,400

He's measuring himself for a purpose-built protective suit made from football equipment

62

00:03:44,400 --> 00:03:47,400

and impact-resistant foam padding.

63

00:03:47,400 --> 00:03:49,400

Ow!

64

00:03:49,400 --> 00:03:54,400

If that toilet's supposed to launch me across the room, then, you know, it'd be kind of nice to have this.

65

00:03:54,400 --> 00:03:56,400

I'll integrate into the suit as much as I can.

66

00:03:56,400 --> 00:03:57,400

Yeah.

67

00:03:57,400 --> 00:03:59,400

But, you know, this...

68

00:03:59,400 --> 00:04:00,400

Yeah.

69

00:04:00,400 --> 00:04:02,400

It'll be like this.

70

00:04:02,400 --> 00:04:04,400

Go ahead and shoot me.

71

00:04:04,400 --> 00:04:09,400

It's not long, though, before Jamie changes his mind about taking one for the team.

72

00:04:09,400 --> 00:04:14,400

After all this armor and your big costume, you don't want to sit on the toilet anymore.

73

00:04:14,400 --> 00:04:15,400

Why not?

74

00:04:15,400 --> 00:04:20,400

Well, that foam, you know, that impact foam burned kind of like napalm.

75

00:04:20,400 --> 00:04:25,400

And after a lot of thought about it, I'm more concerned about getting torched than I am about

76

00:04:25,400 --> 00:04:27,400

getting blown across the room.

77

00:04:27,400 --> 00:04:33,400

I had a suspicion you might wuss out on this armor thing, so I've actually been making some calls

78

00:04:33,400 --> 00:04:36,400

and I might have a very, very acceptable plan B.

79

00:04:36,400 --> 00:04:38,400

Dang, we got it.

80

00:04:38,400 --> 00:04:40,400

Oh, what a touch.

81

00:04:46,400 --> 00:04:50,400

In this box right here is the new star of Mythbusters.

82

00:04:55,400 --> 00:04:57,400

Oh, look at that.

83

00:04:58,400 --> 00:05:01,400

It's all I need is another dummy around this place.

84

00:05:01,400 --> 00:05:08,400

Weighing in at 180 pounds, this Series 2 crash test dummy retired in 1998

85

00:05:08,400 --> 00:05:12,400

after making quite an impact in his chosen profession.

86

00:05:12,400 --> 00:05:14,400

Oh, this is pretty cool.

87

00:05:14,400 --> 00:05:16,400

What part of the body is this?

88

00:05:16,400 --> 00:05:18,400

That would be the... goes into the torso.

89

00:05:18,400 --> 00:05:20,400

Oh, that's stomach. Okay.

90

00:05:20,400 --> 00:05:23,400

Wow. Oh, that's beautiful.

91

00:05:23,400 --> 00:05:26,400

This is like a giant-sized GI Joe.

92

00:05:26,400 --> 00:05:30,400

But if it's the quiet life he's after, he's a bigger dummy than he looks.

93

00:05:30,400 --> 00:05:34,400

He's not going to upstage us. We'll just kick him back into submission.

94

00:05:35,400 --> 00:05:38,400

All he needs now is a name.

95

00:05:38,400 --> 00:05:40,400

I think we should call him Buster.

96

00:05:40,400 --> 00:05:42,400

Buster sounds pretty good to me.

97

00:05:42,400 --> 00:05:45,400

It's kind of manly, a little pretty descriptive.

98

00:05:50,400 --> 00:05:52,400

It doesn't have any ears.

99

00:05:52,400 --> 00:05:58,400

The next step, Jamie has to build a remote-controlled hand to drop the cigarette.

100

00:06:01,400 --> 00:06:04,400

That's probably the best thing.

101

00:06:08,400 --> 00:06:10,400

Okay.

102

00:06:10,400 --> 00:06:15,400

Adam and Jamie have also had to build their very own blast chamber.

103

00:06:15,400 --> 00:06:19,400

It's made from a bulletproof material called Lexen,

104

00:06:19,400 --> 00:06:22,400

the same substance used in aircraft windows.

105

00:06:22,400 --> 00:06:25,400

Hopefully, it will survive its maiden voyage.

106

00:06:31,400 --> 00:06:37,400

On its first outing, the blast chamber is doubling as the world's most public bathroom.

107

00:06:37,400 --> 00:06:41,400

Like an hourglass, the sands of time.

108

00:06:41,400 --> 00:06:46,400

Moving inexorably towards toilet explosion.

109

00:06:46,400 --> 00:06:51,400

Inside, a high-speed camera has its BDI trained on the bowl.

110

00:06:51,400 --> 00:06:56,400

It's running at a thousand frames per second, 40 times faster than the average camcorder.

111

00:06:56,400 --> 00:06:59,400

The more frames exposed, the slower the picture.

112

00:06:59,400 --> 00:07:03,400

Normal camera, high-speed camera.

113

00:07:07,400 --> 00:07:09,400

Perfectly.

114

00:07:09,400 --> 00:07:11,400

That ought to work.

115

00:07:11,400 --> 00:07:12,400

That ought to work.

116

00:07:12,400 --> 00:07:16,400

The temperature inside the chamber is already climbing.

117

00:07:18,400 --> 00:07:23,400

The hotter it is, the easier it should be to ignite the fuel.

118

00:07:23,400 --> 00:07:26,400

While the chamber should easily contain any explosion,

119

00:07:26,400 --> 00:07:30,400

the mythbusters have called for backup just in case.

120

00:07:30,400 --> 00:07:32,400

Have you never heard this myth before?

121

00:07:32,400 --> 00:07:34,400

No, actually I haven't heard this one.

122

00:07:34,400 --> 00:07:38,400

Found a few people on the toilet, but never because of a toilet explosion.

123

00:07:38,400 --> 00:07:40,400

Falling off the toilet.

124

00:07:40,400 --> 00:07:42,400

Falling off the toilet.

125

00:07:42,400 --> 00:07:44,400

Never actually exploding.

126

00:07:44,400 --> 00:07:48,400

The local fire marshals on hand to oversee proceedings.

127

00:07:48,400 --> 00:07:53,400

We've designed this with polycarbonate that won't shatter, go anywhere.

128

00:07:53,400 --> 00:07:57,400

It's securely bolted as well as made in two separate halves.

129

00:07:57,400 --> 00:08:03,400

If there is any kind of general explosion in there, it'll just open like a flower.

130

00:08:03,400 --> 00:08:05,400

So there's nothing holding it together, in other words?

131

00:08:05,400 --> 00:08:06,400

No.

132

00:08:09,400 --> 00:08:10,400

The first product you're going to test?

133

00:08:10,400 --> 00:08:11,400

We've got it.

134

00:08:11,400 --> 00:08:12,400

We have an order.

135

00:08:12,400 --> 00:08:13,400

You start with your cleanest.

136

00:08:13,400 --> 00:08:15,400

You'll have your best progression.

137

00:08:15,400 --> 00:08:22,400

Is there that much of a difference between, you know, like a coal or an ember dropping into a propellant and an actual lit flame?

138

00:08:22,400 --> 00:08:25,400

It depends on how much surface area you have on that coal.

139

00:08:25,400 --> 00:08:28,400

So it will, a coal can light like a cigarette butt?

140

00:08:28,400 --> 00:08:29,400

Absolutely.

141

00:08:29,400 --> 00:08:30,400

Yeah, smoldering.

142

00:08:30,400 --> 00:08:31,400

Yes.

143

00:08:32,400 --> 00:08:34,400

Combustible number one.

144

00:08:34,400 --> 00:08:35,400

Mythbusters hairspray.

145

00:08:35,400 --> 00:08:37,400

It's what I used to keep my do in line.

146

00:08:39,400 --> 00:08:41,400

How much of this stuff am I supposed to put in there?

147

00:08:41,400 --> 00:08:48,400

The myth said that the can of propellant got stuck open, so not knowing what to do with it, she emptied it out in the toilet.

148

00:08:48,400 --> 00:08:49,400

So I put a whole bunch in there.

149

00:08:49,400 --> 00:08:50,400

Oh yeah?

150

00:08:50,400 --> 00:08:51,400

Yeah.

151

00:08:51,400 --> 00:08:54,400

You know, when you start to get dizzy, it's probably time to leave.

152

00:08:54,400 --> 00:08:55,400

Okay.

153

00:08:55,400 --> 00:08:59,400

A sensor measures the level of flammable vapor inside the chamber.

154

00:09:02,400 --> 00:09:05,400

It would seem we have some combustible gases in here.

155

00:09:05,400 --> 00:09:07,400

We're loaded and ready for ignition.

156

00:09:07,400 --> 00:09:08,400

Come on, say something cool.

157

00:09:08,400 --> 00:09:10,400

Release mechanism dropping by.

158

00:09:10,400 --> 00:09:11,400

That's it.

159

00:09:11,400 --> 00:09:15,400

Okay, three, two, one, go.

160

00:09:24,400 --> 00:09:25,400

Nothing.

161

00:09:25,400 --> 00:09:28,400

Not exactly hair-raising stuff.

162

00:09:28,400 --> 00:09:31,400

Well, time to move on to the next test.

163

00:09:31,400 --> 00:09:32,400

Bug spray.

164

00:09:35,400 --> 00:09:36,400

All right.

165

00:09:37,400 --> 00:09:38,400

Well.

166

00:09:38,400 --> 00:09:39,400

Oh.

167

00:09:39,400 --> 00:09:40,400

Aw.

168

00:09:40,400 --> 00:09:43,400

This is powerful porcelain.

169

00:09:43,400 --> 00:09:50,400

It seems the smoldering tip of the cigarette is not producing enough heat to reach the flashpoint of the hydrocarbons.

170

00:09:50,400 --> 00:09:53,400

I mean, we're totally duplicating the circumstances of the myth.

171

00:09:53,400 --> 00:09:55,400

Lit cigarette, bug spray.

172

00:09:55,400 --> 00:09:59,400

It's not like anyone tried to reach an ideal air-fuel mixture.

173

00:09:59,400 --> 00:10:02,400

Bug spray and hairspray aren't the most flammable things in the world.

174

00:10:02,400 --> 00:10:06,400

And also, you know, it's a cigarette with a coal on it.

175

00:10:06,400 --> 00:10:09,400

It's, it's, it'd be better to have a nice open flame to it.

176

00:10:09,400 --> 00:10:15,400

It's time to move outside the confines of the myth and see if a naked flame can spark some life.

177

00:10:15,400 --> 00:10:16,400

More bug spray.

178

00:10:16,400 --> 00:10:19,400

If it doesn't do it on this one, I don't think it's happening.

179

00:10:19,400 --> 00:10:21,400

We still got a few more things to try, though, so be patient.

180

00:10:21,400 --> 00:10:22,400

All right.

181

00:10:22,400 --> 00:10:23,400

All right.

182

00:10:23,400 --> 00:10:27,400

This time, Jamie's giving it both barrels, the sensors squealing.

183

00:10:27,400 --> 00:10:28,400

Okay.

184

00:10:28,400 --> 00:10:30,400

Here it goes.

185

00:10:30,400 --> 00:10:31,400

There.

186

00:10:31,400 --> 00:10:32,400

Go.

187

00:10:32,400 --> 00:10:33,400

Did it go in the toilet?

188

00:10:33,400 --> 00:10:34,400

It did.

189

00:10:34,400 --> 00:10:36,400

And there was actually a little poof in the toilet.

190

00:10:36,400 --> 00:10:37,400

Well, hardly fourth of July.

191

00:10:37,400 --> 00:10:38,400

Poof.

192

00:10:38,400 --> 00:10:39,400

We have poof.

193

00:10:39,400 --> 00:10:41,400

Testing one, two, three.

194

00:10:41,400 --> 00:10:44,400

Time for butane to step up to the plate.

195

00:10:44,400 --> 00:10:45,400

Did it go in?

196

00:10:45,400 --> 00:10:46,400

It went right in.

197

00:10:46,400 --> 00:10:47,400

Yeah.

198

00:10:47,400 --> 00:10:48,400

I'm going to try it.

199

00:10:48,400 --> 00:10:49,400

I'm going to try it.

200

00:10:49,400 --> 00:10:50,400

I'm going to try it.

201

00:10:50,400 --> 00:10:51,400

I'm going to try it.

202

00:10:51,400 --> 00:10:52,400

I'm going to try it.

203

00:10:52,400 --> 00:10:53,400

I'm going to try it.

204

00:10:53,400 --> 00:10:54,400

I'm going to try it.

205

00:10:54,400 --> 00:10:55,400

I'm going to try it.

206

00:10:55,400 --> 00:10:56,400

Did it go in?

207

00:10:56,400 --> 00:10:57,400

It went right in.

208

00:10:57,400 --> 00:10:58,400

Nothing happened.

209

00:10:58,400 --> 00:10:59,400

All right.

210

00:10:59,400 --> 00:11:00,400

Match.

211

00:11:00,400 --> 00:11:01,400

Lighting.

212

00:11:01,400 --> 00:11:02,400

Let's go.

213

00:11:02,400 --> 00:11:07,400

There was a poof.

214

00:11:07,400 --> 00:11:10,400

Finally.

215

00:11:10,400 --> 00:11:14,400

That is not enough to blast somebody off the seat.

216

00:11:14,400 --> 00:11:15,400

You don't think so?

217

00:11:15,400 --> 00:11:16,400

No.

218

00:11:16,400 --> 00:11:22,400

I don't think so either.

219

00:11:22,400 --> 00:11:27,400

The mythbusters are struggling to make the exploding toilet myth anything more than a

220

00:11:27,400 --> 00:11:28,400

flash in the pan.

221

00:11:28,400 --> 00:11:35,400

But this isn't the first time someone has put this story to the test.

222

00:11:35,400 --> 00:11:42,400

Dr. Robert Slay first heard about the exploding toilet myth in the mid-70s.

223

00:11:42,400 --> 00:11:46,400

Intrigued, he conducted his own mythbusting experiment.

224

00:11:46,400 --> 00:11:51,400

I myself, in Texas, in investigating this with a large watermelon and a full can of

225

00:11:51,400 --> 00:11:56,400

spray, was only able to singe the bottom of the watermelon, not to have it leave the toilet.

226

00:11:56,400 --> 00:12:02,400

Dr. Slay says these stories are invaluable in a field where every day is a matter of

227

00:12:02,400 --> 00:12:03,400

life and death.

228

00:12:03,400 --> 00:12:06,400

I think they're therapeutic in the sense that it relieves stress.

229

00:12:06,400 --> 00:12:12,400

We know that humor, used appropriately, particularly in tense work situations, tends to make people

230

00:12:12,400 --> 00:12:13,400

perform better.

231

00:12:13,400 --> 00:12:16,400

As you may well know, there are studies that show that people are more creative.

232

00:12:16,400 --> 00:12:20,400

They think of better solutions when they're working in what they call a fun environment

233

00:12:20,400 --> 00:12:22,400

or a place where there can be humor.

234

00:12:22,400 --> 00:12:26,400

Undeterred, Adam and Jamie head back to detonate this toilet.

235

00:12:26,400 --> 00:12:32,400

The myth is looking kind of unlikely at the moment, although gasoline is the big one.

236

00:12:32,400 --> 00:12:34,400

What do you think?

237

00:12:34,400 --> 00:12:35,400

Does that work?

238

00:12:35,400 --> 00:12:36,400

Oh, that's beautiful.

239

00:12:36,400 --> 00:12:41,400

Surely dropping a cigarette into a pool of gasoline will produce some type of reaction.

240

00:12:41,400 --> 00:12:43,400

Let's get a wet towel ready in case the extinguisher fails.

241

00:12:43,400 --> 00:12:46,400

Silly housewife pouring gasoline down the toilet.

242

00:12:46,400 --> 00:12:47,400

Are you ready?

243

00:12:47,400 --> 00:12:48,400

I'm ready.

244

00:12:48,400 --> 00:12:49,400

Lighting cigarette.

245

00:12:49,400 --> 00:12:51,400

Okay, I'm going to drop it.

246

00:12:51,400 --> 00:12:55,400

Three, two, one, go.

247

00:12:55,400 --> 00:12:56,400

Nada.

248

00:12:56,400 --> 00:13:01,400

But the pool of liquid simply put the cigarette out.

249

00:13:01,400 --> 00:13:06,400

Try again, this time using the naked flame of the match.

250

00:13:06,400 --> 00:13:07,400

Lit, go.

251

00:13:07,400 --> 00:13:13,400

Okay, so you'd get a shock and a blackened backside, but it's still not the explosive

252

00:13:13,400 --> 00:13:15,400

force mentioned in the myth.

253

00:13:15,400 --> 00:13:18,400

So do you think that was enough to blow you off the toilet?

254

00:13:18,400 --> 00:13:19,400

No way.

255

00:13:19,400 --> 00:13:20,400

No way.

256

00:13:20,400 --> 00:13:22,400

It wasn't really like a constant blast.

257

00:13:22,400 --> 00:13:25,400

I mean, it didn't, you know, I didn't see the chamber move very much at all.

258

00:13:25,400 --> 00:13:32,400

Finally, the moment the mythbusters have been sweating on, it's time for Solution X, gunpowder.

259

00:13:32,400 --> 00:13:37,400

We have this black powder that, like, there's a, actually almost a full can of this.

260

00:13:37,400 --> 00:13:40,400

Do you think you could let us put it in the toilet and set it off?

261

00:13:40,400 --> 00:13:41,400

Sure, go ahead.

262

00:13:41,400 --> 00:13:44,400

Try a cap full in a metal container and see what we get out of it.

263

00:13:44,400 --> 00:13:47,400

Now this looks more like it.

264

00:13:47,400 --> 00:13:49,400

The turkey basters.

265

00:13:49,400 --> 00:13:54,400

Um, oh, that's beautiful.

266

00:13:54,400 --> 00:13:56,400

So I made a nice woof, actually.

267

00:13:56,400 --> 00:13:58,400

Yeah, it did make a very nice woof.

268

00:14:00,400 --> 00:14:02,400

I saw a movie like this once.

269

00:14:02,400 --> 00:14:04,400

Get him, Lynn.

270

00:14:04,400 --> 00:14:08,400

Time for our new host to make his mythbusters debut.

271

00:14:09,400 --> 00:14:14,400

The fire marshal seems to be getting a little nervous.

272

00:14:14,400 --> 00:14:15,400

How much?

273

00:14:15,400 --> 00:14:17,400

I put it all in there.

274

00:14:17,400 --> 00:14:18,400

That's too much.

275

00:14:18,400 --> 00:14:19,400

Half of it.

276

00:14:19,400 --> 00:14:21,400

That's a hell of a lot.

277

00:14:21,400 --> 00:14:23,400

Should give you one hell of an effect.

278

00:14:23,400 --> 00:14:25,400

Okay, lighting the match.

279

00:14:27,400 --> 00:14:29,400

It left, didn't it?

280

00:14:29,400 --> 00:14:30,400

Uh-oh.

281

00:14:30,400 --> 00:14:31,400

I thought it went out.

282

00:14:31,400 --> 00:14:32,400

No, it didn't.

283

00:14:32,400 --> 00:14:35,400

Well, there is no match on the tinfoil.

284

00:14:35,400 --> 00:14:39,400

Strangely, exactly what was explained as a possibility has occurred.

285

00:14:39,400 --> 00:14:41,400

Well, what do we think?

286

00:14:41,400 --> 00:14:44,400

Time five minutes or something and then going?

287

00:14:44,400 --> 00:14:45,400

Reasonable.

288

00:14:45,400 --> 00:14:47,400

609.

289

00:14:47,400 --> 00:14:49,400

Sit tight, Buster.

290

00:14:49,400 --> 00:14:52,400

Your moment of glory has been slightly delayed.

291

00:15:00,400 --> 00:15:01,400

Chamber is sealed.

292

00:15:01,400 --> 00:15:02,400

Are we good to go?

293

00:15:02,400 --> 00:15:03,400

Yep.

294

00:15:03,400 --> 00:15:04,400

Ready?

295

00:15:04,400 --> 00:15:05,400

Go.

296

00:15:10,400 --> 00:15:13,400

Well, I tell you what, you know that.

297

00:15:14,400 --> 00:15:15,400

That was great.

298

00:15:15,400 --> 00:15:16,400

It didn't even move him.

299

00:15:16,400 --> 00:15:17,400

No, he didn't even move.

300

00:15:17,400 --> 00:15:20,400

It did blow his pants up, though.

301

00:15:23,400 --> 00:15:25,400

He's still holding the cigarette.

302

00:15:26,400 --> 00:15:27,400

That was fun.

303

00:15:27,400 --> 00:15:28,400

Congratulations.

304

00:15:28,400 --> 00:15:33,400

Not even half a tin of gunpowder could unseat our new star.

305

00:15:33,400 --> 00:15:37,400

If anything, it just enhanced his smoldering good looks.

306

00:15:45,400 --> 00:15:46,400

There you go.

307

00:15:46,400 --> 00:15:49,400

Yeah, I've had dudes just like this, too.

308

00:15:49,400 --> 00:15:51,400

Another myth busted.

309

00:15:51,400 --> 00:15:54,400

Jamie and Adam are flush with success.

310

00:15:57,400 --> 00:15:59,400

This is perfect amount of carnage.

311

00:16:03,400 --> 00:16:13,400

I'd say this, you know, there's no way that you can put any combustible into a toilet

312

00:16:13,400 --> 00:16:15,400

that would move you.

313

00:16:15,400 --> 00:16:17,400

And what about their new co-star?

314

00:16:17,400 --> 00:16:19,400

I think you work fantastically.

315

00:16:19,400 --> 00:16:23,400

In fact, we were able to set fire to his clothes and he doesn't seem any worse for wear.

316

00:16:23,400 --> 00:16:27,400

I mean, he smells a little bit, but I think he did fantastically.

317

00:16:33,400 --> 00:16:38,400

What's this?

318

00:16:38,400 --> 00:16:52,400

Adam and Jamie browsing in a sex shop?

319

00:16:52,400 --> 00:16:54,400

Your arms are totally inside of it.

320

00:16:54,400 --> 00:17:00,400

What sort of depraved myth busting challenge could possibly call for such kinky clothing?

321

00:17:01,400 --> 00:17:06,400

The myth that you stay drier if you run in the rain.

322

00:17:06,400 --> 00:17:08,400

Basically, it's a bit of practical advice.

323

00:17:08,400 --> 00:17:12,400

Run if it's raining and you won't get as wet as if you're walking.

324

00:17:12,400 --> 00:17:14,400

Seems to make sense to me.

325

00:17:14,400 --> 00:17:15,400

Common sense?

326

00:17:15,400 --> 00:17:19,400

Since when have the myth busters let that get in the way of a challenge?

327

00:17:19,400 --> 00:17:23,400

The idea is someone walking through the rain will stay in the rain longer,

328

00:17:23,400 --> 00:17:27,400

but the rain is only falling on their head and shoulders.

329

00:17:27,400 --> 00:17:31,400

Whereas someone running through the rain is actually picking up rain on their entire front.

330

00:17:33,400 --> 00:17:34,400

So what?

331

00:17:34,400 --> 00:17:38,400

We just wait for the next rainy day and go for a stroll?

332

00:17:38,400 --> 00:17:39,400

No, sirree.

333

00:17:39,400 --> 00:17:43,400

The myth busters will need controlled conditions.

334

00:17:43,400 --> 00:17:46,400

We're going to have to be really careful about this.

335

00:17:46,400 --> 00:17:48,400

It seems like a simple thing.

336

00:17:48,400 --> 00:17:49,400

It seems pretty straightforward.

337

00:17:49,400 --> 00:17:53,400

Yeah, but there are actually a lot of factors to consider.

338

00:17:53,400 --> 00:17:58,400

You've got the velocity of the rain, you've got the speed that you're running,

339

00:17:58,400 --> 00:18:01,400

you've got all these different things to factor in there.

340

00:18:02,400 --> 00:18:07,400

The setup, an indoor course 100 feet long, which Adam and Jamie will walk,

341

00:18:07,400 --> 00:18:10,400

then run through in a downpour of homemade rain.

342

00:18:10,400 --> 00:18:14,400

They'll wear identical cotton coveralls, which will be weighed after each test

343

00:18:14,400 --> 00:18:16,400

to see how much rain they've soaked up.

344

00:18:16,400 --> 00:18:22,400

Now all that means they'll have to manufacture some very precise precipitation.

345

00:18:22,400 --> 00:18:26,400

I think the hardest part is going to be getting really reliable, consistent rain,

346

00:18:26,400 --> 00:18:28,400

something that's realistic.

347

00:18:28,400 --> 00:18:32,400

So it's got to be the right velocity, the right drop size,

348

00:18:32,400 --> 00:18:37,400

nice even spread over a big distance like this for us to get a good consistent run.

349

00:18:37,400 --> 00:18:41,400

At this early stage, what do Adam and Jamie think will happen?

350

00:18:41,400 --> 00:18:44,400

If you walk, you spend more time in the rain.

351

00:18:44,400 --> 00:18:45,400

That's your idea?

352

00:18:45,400 --> 00:18:47,400

I'm going to disagree with you just for the hell of it.

353

00:18:47,400 --> 00:18:50,400

I'm going to say the person who runs the rain gets weather.

354

00:18:50,400 --> 00:18:54,400

When it comes time to run the test, Adam and Jamie will have to make sure

355

00:18:54,400 --> 00:18:57,400

their perspiration doesn't mix with the rain,

356

00:18:57,400 --> 00:19:00,400

so they'll have to wear something underneath their coveralls,

357

00:19:00,400 --> 00:19:02,400

something snug and form fitting.

358

00:19:04,400 --> 00:19:08,400

Ah, so that explains the visit to the land of latex.

359

00:19:08,400 --> 00:19:09,400

Have you ever worn latex before?

360

00:19:09,400 --> 00:19:11,400

I've never worn latex before.

361

00:19:11,400 --> 00:19:13,400

I've heard it takes a lot of powder.

362

00:19:13,400 --> 00:19:15,400

This one, you get in through the neck.

363

00:19:15,400 --> 00:19:16,400

This one, you open up the shell.

364

00:19:16,400 --> 00:19:17,400

The whole body fits through the neck.

365

00:19:17,400 --> 00:19:21,400

This is called a neck entry, and all you do is stretch.

366

00:19:21,400 --> 00:19:22,400

It doesn't tear.

367

00:19:22,400 --> 00:19:26,400

I mean, it's built very strong, and you just step inside of it.

368

00:19:26,400 --> 00:19:30,400

This is kind of a cool feeling, because it completely closes up around you.

369

00:19:30,400 --> 00:19:31,400

Do you want to try them on right now?

370

00:19:31,400 --> 00:19:33,400

I'm not attached to trying them on right now.

371

00:19:33,400 --> 00:19:35,400

It seems like a lot of work.

372

00:19:35,400 --> 00:19:38,400

But apparently, we're going to try them on right now.

373

00:19:43,400 --> 00:19:44,400

That's enough of that.

374

00:19:45,400 --> 00:19:47,400

How do you feel?

375

00:19:47,400 --> 00:19:49,400

I feel kind of sexy.

376

00:19:49,400 --> 00:19:53,400

It's funny, because you bend your legs, you can feel them spring back again.

377

00:19:53,400 --> 00:19:56,400

You can't, it's like, poink, poink.

378

00:19:57,400 --> 00:20:02,400

Though a little unsure at first, Jamie seems quite taken.

379

00:20:02,400 --> 00:20:06,400

The next step, buy some piping for their homemade downpour.

380

00:20:06,400 --> 00:20:09,400

Are these things sealed just by screwing them in tight?

381

00:20:09,400 --> 00:20:11,400

Teflon tape, you'd have to teflon tape your thing.

382

00:20:11,400 --> 00:20:14,400

I'd rather use the goop.

383

00:20:14,400 --> 00:20:15,400

It goes together quick.

384

00:20:15,400 --> 00:20:17,400

I was trying to accommodate you.

385

00:20:17,400 --> 00:20:20,400

You were like, we're going to have to glue all these together earlier.

386

00:20:20,400 --> 00:20:24,400

And when you've done special effects for as many sci-fi movies as Adam,

387

00:20:24,400 --> 00:20:29,400

you see irrigation equipment in a completely different light.

388

00:20:29,400 --> 00:20:30,400

Here you go.

389

00:20:30,400 --> 00:20:35,400

This I've seen in more than one movie as the business end of some kind of big gun.

390

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

So we need like 40 feet of half inch pipe,

391

00:20:39,400 --> 00:20:43,400

and 150 feet of the two inch pipe.

392

00:20:51,400 --> 00:20:56,400

We need to have at least about 60 feet of height for the sprinklers,

393

00:20:56,400 --> 00:21:01,400

so that the raindrops can achieve terminal velocity.

394

00:21:01,400 --> 00:21:06,400

After falling 60 feet, a drop of water is traveling at maximum speed,

395

00:21:06,400 --> 00:21:09,400

around 22 feet per second.

396

00:21:09,400 --> 00:21:14,400

After that, it cannot go any faster, no matter how far it plummets.

397

00:21:14,400 --> 00:21:17,400

We just go up there with a hose, you know, and squirt it down.

398

00:21:17,400 --> 00:21:19,400

It's not really going to be like real rain.

399

00:21:19,400 --> 00:21:22,400

It might be going faster or slower. We don't know.

400

00:21:22,400 --> 00:21:25,400

Over the years, several studies have sought to answer the question

401

00:21:25,400 --> 00:21:29,400

of whether you should amble or gallop through the rain.

402

00:21:29,400 --> 00:21:32,400

Meteorologists Tom Peterson and Trevor Wallace

403

00:21:32,400 --> 00:21:37,400

conducted their own experiment at the National Climatic Data Center in North Carolina.

404

00:21:37,400 --> 00:21:41,400

They simply waited for a downpour and stepped outside.

405

00:21:41,400 --> 00:21:45,400

We measured out an approximate course to try to get 100 meters,

406

00:21:45,400 --> 00:21:49,400

but we didn't feel like it was crucial to have exactly 100 meters

407

00:21:49,400 --> 00:21:52,400

because we weren't trying to see how much rain we absorbed in 100 meters,

408

00:21:52,400 --> 00:21:55,400

but the relative difference between running and walking.

409

00:21:55,400 --> 00:21:59,400

Tom walked, Trevor ran, then their clothing was weighed.

410

00:21:59,400 --> 00:22:02,400

We won't reveal their results just yet.

411

00:22:02,400 --> 00:22:05,400

Let's wait and see how Adam and Jamie get on.

412

00:22:08,400 --> 00:22:10,400

Ironically, the heavens have opened.

413

00:22:10,400 --> 00:22:14,400

Just as Adam and Jamie find the perfect place to whip up a storm.

414

00:22:15,400 --> 00:22:16,400

So here we are, Jamie.

415

00:22:16,400 --> 00:22:18,400

An Alameda Naval Base.

416

00:22:18,400 --> 00:22:20,400

Yeah, across the bay from San Francisco.

417

00:22:20,400 --> 00:22:23,400

You know, they used to paint C-130 planes in this room.

418

00:22:23,400 --> 00:22:24,400

It's a big hangar.

419

00:22:24,400 --> 00:22:25,400

Yeah.

420

00:22:26,400 --> 00:22:31,400

Time to see whether or not Adam's rain delivery system is just a pipe dream.

421

00:22:37,400 --> 00:22:41,400

150 feet of pipe with sprinkler heads every six feet.

422

00:22:41,400 --> 00:22:44,400

I'm actually really pleased with the way things are going.

423

00:22:44,400 --> 00:22:46,400

We've got half up already.

424

00:22:46,400 --> 00:22:48,400

I'm going to do the other half right now.

425

00:22:48,400 --> 00:22:51,400

And I've got plenty of type points that looks really stable.

426

00:22:51,400 --> 00:22:55,400

And as long as Jamie holds up on his end, we shouldn't be here too long.

427

00:22:56,400 --> 00:22:58,400

Jamie's working on getting water for the challenge.

428

00:22:58,400 --> 00:23:01,400

Not as easy as you might think on a rainy day.

429

00:23:03,400 --> 00:23:06,400

It's legal to tie into these fire hydrants,

430

00:23:06,400 --> 00:23:13,400

but you have to go through the fire department and you buy or rent a meter

431

00:23:13,400 --> 00:23:17,400

that allows you to tie into it and keep tracking the water usage.

432

00:23:17,400 --> 00:23:19,400

Accessing water is one thing.

433

00:23:19,400 --> 00:23:23,400

Getting it to travel 60 feet straight up in the air is another.

434

00:23:23,400 --> 00:23:24,400

There you go.

435

00:23:24,400 --> 00:23:29,400

Jamie's calculated that the water will have to be pumped at 15 pounds per square inch.

436

00:23:29,400 --> 00:23:31,400

No problem for this pump.

437

00:23:31,400 --> 00:23:36,400

It can move H<sub>2</sub>O at a rate of 200 gallons per minute at 50 pounds per square inch.

438

00:23:38,400 --> 00:23:41,400

While they're setting up, let's see how Adam's getting on.

439

00:23:50,400 --> 00:23:54,400

That might be enough, but you know what? I don't think so.

440

00:23:54,400 --> 00:23:57,400

Guess that means he's finished the rain rig.

441

00:23:57,400 --> 00:24:00,400

With the pipes in place and the water pumping,

442

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

the mythbusters are keen to give the rain a dry run.

443

00:24:08,400 --> 00:24:11,400

Come on, come on, keep coming down.

444

00:24:11,400 --> 00:24:14,400

No, no, it's okay, it's okay, not too much.

445

00:24:14,400 --> 00:24:16,400

Okay, so what's next? What's next?

446

00:24:16,400 --> 00:24:20,400

Well, we have to mark out a course and it's 100 feet long,

447

00:24:20,400 --> 00:24:22,400

so we're going to mark it out with tape.

448

00:24:26,400 --> 00:24:28,400

We need to get another roll and attach it to this

449

00:24:28,400 --> 00:24:30,400

so we can make it to the other piece of tape.

450

00:24:36,400 --> 00:24:38,400

Is that 100 feet?

451

00:24:39,400 --> 00:24:40,400

Are we too long?

452

00:24:40,400 --> 00:24:42,400

Just a hair.

453

00:24:47,400 --> 00:24:52,400

On some of the tests, they plan to add wind as a variable.

454

00:24:52,400 --> 00:24:54,400

You know, I'm not getting this at all.

455

00:24:54,400 --> 00:24:58,400

It's like, you don't want one starting at the start line?

456

00:24:58,400 --> 00:25:01,400

No, no, come over here. I'll draw it out for you what I'm thinking.

457

00:25:01,400 --> 00:25:03,400

Probably here, blowing like this.

458

00:25:03,400 --> 00:25:06,400

Looks like they can't agree on a fan plan.

459

00:25:06,400 --> 00:25:09,400

We want to get the fans as close to the course as we can anyway.

460

00:25:09,400 --> 00:25:13,400

Well, this is certainly consistency is more important than the highest wind speed.

461

00:25:13,400 --> 00:25:15,400

Let's set it up my way first.

462

00:25:15,400 --> 00:25:17,400

Of course, I want to set it up my way first.

463

00:25:17,400 --> 00:25:19,400

Do you want to set it up your way first?

464

00:25:19,400 --> 00:25:21,400

I don't care actually, Adam.

465

00:25:25,400 --> 00:25:29,400

For this experiment, they're looking to duplicate average rainfall

466

00:25:29,400 --> 00:25:31,400

between 2 and 3 inches per hour.

467

00:25:31,400 --> 00:25:34,400

Digital gauges are set out along the course.

468

00:25:34,400 --> 00:25:36,400

Well, these are fabulous.

469

00:25:36,400 --> 00:25:39,400

It's almost like whoever invented these didn't want to get wet

470

00:25:39,400 --> 00:25:41,400

when they were measuring the rain.

471

00:25:42,400 --> 00:25:45,400

We're going to run it for five minutes.

472

00:25:53,400 --> 00:25:56,400

I can't tell how big the drops are.

473

00:25:56,400 --> 00:26:00,400

So currently we're getting just about one and three-quarter inches per hour.

474

00:26:00,400 --> 00:26:03,400

We want to goose up the throttle just a little bit

475

00:26:03,400 --> 00:26:06,400

and we should have the perfect amount of rain.

476

00:26:06,400 --> 00:26:08,400

I'm ready to dress up.

477

00:26:12,400 --> 00:26:14,400

Are you ready?

478

00:26:14,400 --> 00:26:16,400

I'm ready as in economy.

479

00:26:16,400 --> 00:26:20,400

I must admit I feel a little funky.

480

00:26:20,400 --> 00:26:23,400

Step one, make the rain more visible.

481

00:26:27,400 --> 00:26:32,400

Bubble, bubble, toil and trouble, fire burn and cauldron bubble.

482

00:26:32,400 --> 00:26:34,400

Step two, put on the coveralls.

483

00:26:34,400 --> 00:26:37,400

Each pair weighs 757 grams.

484

00:26:41,400 --> 00:26:44,400

Step three, it's time to walk the line

485

00:26:44,400 --> 00:26:47,400

and find an answer to this age-old mystery.

486

00:26:47,400 --> 00:26:49,400

Walking.

487

00:26:53,400 --> 00:26:57,400

Our high-speed camera running at a thousand frames per second

488

00:26:57,400 --> 00:27:00,400

captures every single droplet.

489

00:27:02,400 --> 00:27:05,400

Adam and Jamie will walk the course twice.

490

00:27:05,400 --> 00:27:07,400

Once with wind, once without.

491

00:27:07,400 --> 00:27:09,400

And stop.

492

00:27:11,400 --> 00:27:13,400

Each take is timed.

493

00:27:13,400 --> 00:27:17,400

Then the coveralls are straight off and onto the scales.

494

00:27:19,400 --> 00:27:21,400

785 grams.

495

00:27:21,400 --> 00:27:23,400

What was the original weight?

496

00:27:23,400 --> 00:27:24,400

757.

497

00:27:24,400 --> 00:27:25,400

757.

498

00:27:25,400 --> 00:27:26,400

Cool.

499

00:27:26,400 --> 00:27:28,400

So 18 grams of water.

500

00:27:28,400 --> 00:27:31,400

And the results faithfully recorded.

501

00:27:34,400 --> 00:27:37,400

Now Jamie's turned to be under the weather.

502

00:27:42,400 --> 00:27:46,400

Both walks clock in at around 18 seconds

503

00:27:46,400 --> 00:27:50,400

and the coveralls have soaked up almost the same amount of water.

504

00:27:58,400 --> 00:28:02,400

But what happens when Adam and Jamie up the pace?

505

00:28:02,400 --> 00:28:04,400

That can't be right.

506

00:28:04,400 --> 00:28:07,400

798, significantly more.

507

00:28:07,400 --> 00:28:11,400

Adam's coveralls are 14 grams heavier after the run.

508

00:28:12,400 --> 00:28:17,400

Time to find out what our meteorologists gauged from their rate experiment.

509

00:28:17,400 --> 00:28:20,400

It's much better to run than walk,

510

00:28:20,400 --> 00:28:23,400

according to our model and the experiment.

511

00:28:23,400 --> 00:28:27,400

The runner was 40% less wet than the walker.

512

00:28:32,400 --> 00:28:35,400

On Jamie's run, the difference isn't as great.

513

00:28:36,400 --> 00:28:38,400

793.

514

00:28:39,400 --> 00:28:44,400

But the raw data is still pointing to an answer that flies in the face of science.

515

00:28:44,400 --> 00:28:46,400

The results aren't what I expected at all, actually.

516

00:28:46,400 --> 00:28:48,400

The numbers are really close.

517

00:28:48,400 --> 00:28:51,400

We're only talking about a matter of a dozen grams here and there.

518

00:28:51,400 --> 00:28:54,400

So when we average it all out, I think it's going to show that running,

519

00:28:54,400 --> 00:28:56,400

actually, you get wetter, strangely.

520

00:29:00,400 --> 00:29:02,400

The difference is minute.

521

00:29:02,400 --> 00:29:06,400

Windblown rain makes the coveralls only a few grams heavier.

522

00:29:06,400 --> 00:29:10,400

The overall result, however, remains the same.

523

00:29:11,400 --> 00:29:16,400

At the end of the day, eight pink-tinged coveralls tell the story.

524

00:29:17,400 --> 00:29:21,400

After the running, the rubber suits, the getting wet, crunching the numbers,

525

00:29:21,400 --> 00:29:23,400

what's the final result? What's the verdict?

526

00:29:23,400 --> 00:29:24,400

Better to walk than run.

527

00:29:24,400 --> 00:29:25,400

Really?

528

00:29:25,400 --> 00:29:26,400

Yeah.

529

00:29:26,400 --> 00:29:31,400

It was very clear, over a 100-foot course with 2 to 3 inches per hour rain delivery.

530

00:29:31,400 --> 00:29:37,400

We got more than twice the rain per foot running than we did with walking.

531

00:29:37,400 --> 00:29:39,400

Is this one busted?

532

00:29:39,400 --> 00:29:41,400

This one's busted.

533

00:29:41,400 --> 00:29:44,400

Fact is that it's better to walk than to run in the rain.

534

00:29:52,400 --> 00:29:54,400

The mythbusters are aiming high.

535

00:29:55,400 --> 00:29:58,400

Adam and Janie are unraveling the myth of the magic bullet.

536

00:29:58,400 --> 00:30:02,400

The bullet that delivers a deadly payload then disappears.

537

00:30:04,400 --> 00:30:07,400

It's even been implicated in the death of a president.

538

00:30:08,400 --> 00:30:13,400

In the early days of the Cold War, movies and novels hit on the idea of a magic bullet,

539

00:30:13,400 --> 00:30:17,400

a bullet that dissolves, leaving no ballistics evidence.

540

00:30:17,400 --> 00:30:18,400

Here's your ammo.

541

00:30:19,400 --> 00:30:20,400

This is a ballistic H2O.

542

00:30:20,400 --> 00:30:24,400

It's an ice projectile, a velocity of 3,000 feet per second,

543

00:30:24,400 --> 00:30:26,400

and an accuracy of up to 500 yards.

544

00:30:26,400 --> 00:30:29,400

No exit wound, the bullet's going to melt inside the target.

545

00:30:29,400 --> 00:30:33,400

In the action thriller movie Most Wanted, a bullet made of ice

546

00:30:33,400 --> 00:30:36,400

gives the first lady the cold shoulder.

547

00:30:39,400 --> 00:30:41,400

That seems a good place to start.

548

00:30:41,400 --> 00:30:44,400

Adam and Janie will try and make an ice bullet.

549

00:30:44,400 --> 00:30:48,400

One of the problems that it seems might occur with an ice bullet is that,

550

00:30:48,400 --> 00:30:53,400

whereas lead conforms to the tapering shape of a barrel, ice might not,

551

00:30:53,400 --> 00:30:58,400

and thus block the barrel and the gases might explode the barrel itself.

552

00:30:59,400 --> 00:31:00,400

Now it's not going to be easy.

553

00:31:00,400 --> 00:31:05,400

The guys will have to make a bullet mold, fill it with water, freeze it,

554

00:31:05,400 --> 00:31:09,400

then fire the ice projectile from a high-powered rifle.

555

00:31:10,400 --> 00:31:14,400

Step one, Adam fires off a letter to the CIA,

556

00:31:14,400 --> 00:31:18,400

requesting details on the existence of magic bullets.

557

00:31:19,400 --> 00:31:23,400

Then it's off to the local gun store.

558

00:31:28,400 --> 00:31:31,400

The guys want to fire the ice bullet from a Mannlicher Karkano,

559

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

the same rifle the FBI alleges Lee Harvey Oswald used.

560

00:31:35,400 --> 00:31:40,400

We called earlier about a rifle that looks kind of similar to the Mannlicher Karkano.

561

00:31:40,400 --> 00:31:43,400

It's not exactly the same, but it's close enough.

562

00:31:43,400 --> 00:31:47,400

Have you ever heard of anyone trying to fire a bullet made of ice at one of these?

563

00:31:47,400 --> 00:31:50,400

No, I haven't. I know it's a myth.

564

00:31:50,400 --> 00:31:52,400

You've heard the myth.

565

00:31:52,400 --> 00:31:56,400

But I've never actually heard of anybody trying it. I don't think it's feasible.

566

00:31:56,400 --> 00:31:58,400

So why don't you think it's feasible?

567

00:31:58,400 --> 00:31:59,400

Because ice melts.

568

00:31:59,400 --> 00:32:05,400

When buying a weapon in California, there's a 10-day waiting period, so it's back to base.

569

00:32:05,400 --> 00:32:09,400

So we did pretty good there. We got most of what we need, I think, to get rolling.

570

00:32:09,400 --> 00:32:14,400

We got our loader, we got our manual, we got funnels for putting powder back in if we spill some.

571

00:32:14,400 --> 00:32:17,400

We got our bullets, we got our impact bullets.

572

00:32:17,400 --> 00:32:22,400

The trip to the gun store has brought it home to the guys just how dangerous this project will be.

573

00:32:22,400 --> 00:32:28,400

We're working with high explosives, we're working on objects and with machines specifically designed to kill people.

574

00:32:28,400 --> 00:32:32,400

That safety's got to be paramount through every step of this.

575

00:32:32,400 --> 00:32:42,400

Anytime we modify a gun, even the slightest variation in loading the bullet into the cartridge can cause the thing to explode in the gun.

576

00:32:42,400 --> 00:32:44,400

It could be very dangerous.

577

00:32:44,400 --> 00:32:47,400

A big X factor is gunpowder.

578

00:32:47,400 --> 00:32:55,400

You know, what they told us was if you got the gunpowder 22 degrees below zero or less, that it wouldn't even fire, it wouldn't even ignite.

579

00:32:55,400 --> 00:33:02,400

What Jamie's looking at doing is casting it in such a way as to isolate the tip of the bullet from the rest of the bullet.

580

00:33:02,400 --> 00:33:08,400

While Jamie starts making a bullet mold, Adams hard at work on their intended victim.

581

00:33:08,400 --> 00:33:15,400

This is actually a model of my face that Jamie and I did probably about ten years ago.

582

00:33:15,400 --> 00:33:20,400

I was bald and clean-shell and I figured, you know, it's a perfect time to cast her head.

583

00:33:20,400 --> 00:33:25,400

The dummy will be made from ballistic gel, a substance used by the FBI.

584

00:33:25,400 --> 00:33:29,400

Made from animal products, the gel mimics human flesh.

585

00:33:30,400 --> 00:33:35,400

Time to get sculpting.

586

00:33:45,400 --> 00:33:52,400

The dummy will have to be chilled for 48 hours. Where are they going to find a big enough freezer?

587

00:33:52,400 --> 00:33:54,400

Well, that's made of gel.

588

00:33:54,400 --> 00:33:56,400

That's made of gel, 200 pounds of gel.

589

00:33:56,400 --> 00:33:57,400

It feels good.

590

00:33:58,400 --> 00:34:01,400

It's over to the cool room at the local deli.

591

00:34:10,400 --> 00:34:12,400

Thank you very much, Sunel.

592

00:34:12,400 --> 00:34:13,400

No problem.

593

00:34:13,400 --> 00:34:15,400

You guys coming for lunch? We got gel on special.

594

00:34:18,400 --> 00:34:20,400

How's the bullet mold coming along?

595

00:34:20,400 --> 00:34:27,400

I'm trying to find a drill that will replicate the size of the bullet itself so that I can make a mold

596

00:34:27,400 --> 00:34:31,400

rather than pouring rubber around this and replicating it that way.

597

00:34:31,400 --> 00:34:38,400

I'm going to just drill a hole that is shaped like this in a block of aluminum that I can separate.

598

00:34:38,400 --> 00:34:42,400

A real bullet sits in a case which is loaded with gunpowder.

599

00:34:42,400 --> 00:34:46,400

When the trigger is pulled, a primer ignites the gunpowder

600

00:34:46,400 --> 00:34:51,400

and the explosion drives the bullet out of the case and down the barrel.

601

00:34:51,400 --> 00:34:55,400

Jamie will have to load his ice bullet into a cartridge for firing.

602

00:34:55,400 --> 00:34:58,400

That means getting the real bullet out.

603

00:34:58,400 --> 00:35:00,400

I barely see anything down there.

604

00:35:00,400 --> 00:35:01,400

That's a rimfire.

605

00:35:01,400 --> 00:35:08,400

Now you're only supposed to use this tool on certain types of ammunition, but Adam never reads instructions.

606

00:35:08,400 --> 00:35:12,400

You know, I could have read the directions and it wouldn't have made any sense to me because I don't know what a rimfire bullet is.

607

00:35:12,400 --> 00:35:16,400

I would have been blissfully proceeding without thinking I was in danger.

608

00:35:16,400 --> 00:35:18,400

I was raised up on a farm.

609

00:35:18,400 --> 00:35:20,400

Then there was a varmint bullet.

610

00:35:20,400 --> 00:35:22,400

Careful, you've got stuff in there.

611

00:35:27,400 --> 00:35:29,400

The ice bullet mold is ready to go.

612

00:35:29,400 --> 00:35:34,400

The two aluminum blocks screw together, forming a perfect bullet shape.

613

00:35:34,400 --> 00:35:39,400

Jamie pours water into the mold and dunks it in liquid nitrogen.

614

00:35:39,400 --> 00:35:40,400

Looks good.

615

00:35:40,400 --> 00:35:42,400

Looks like a bullet to me.

616

00:35:42,400 --> 00:35:46,400

But getting the bullet out of the mold in one piece is proving a problem.

617

00:35:46,400 --> 00:35:49,400

You know, it didn't come out all in one piece.

618

00:35:49,400 --> 00:35:54,400

I need to put a coating on the inside of the mold so that the ice comes out easily because it's very brittle.

619

00:35:54,400 --> 00:35:57,400

We don't want to break it before we get it in the gun.

620

00:35:57,400 --> 00:35:59,400

The alarm bells are ringing already.

621

00:35:59,400 --> 00:36:06,400

If an ice bullet is too brittle to survive the mold intact, how could it be fired from the barrel of a rifle?

622

00:36:10,400 --> 00:36:14,400

A bullet does not stop accelerating once it leaves the gun.

623

00:36:14,400 --> 00:36:18,400

It actually gets propelled by heated gases exploding from the barrel.

624

00:36:18,400 --> 00:36:23,400

Is it really possible that a simple ice projectile, no matter how cold,

625

00:36:23,400 --> 00:36:27,400

could withstand such forces and reach its target intact?

626

00:36:27,400 --> 00:36:29,400

This man says no.

627

00:36:29,400 --> 00:36:36,400

Dr. Roger McCarthy is the chairman of Exponent, a company whose success comes from the failure of others.

628

00:36:36,400 --> 00:36:43,400

He spent his life investigating everything, from faulty massage chairs to major disasters.

629

00:36:43,400 --> 00:36:50,400

He's also studied the magic bullet theory, in particular the idea that JFK was killed by a magic bullet,

630

00:36:50,400 --> 00:36:54,400

fired by a second sniper on the grassy knoll.

631

00:36:54,400 --> 00:36:57,400

But Dr. McCarthy's magic bullet isn't made of ice.

632

00:36:57,400 --> 00:37:01,400

It's metal, hollowed out, and filled with liquid.

633

00:37:01,400 --> 00:37:07,400

A liquid bullet was one of the few ways to guarantee that all the energy of the bullet would be dissipated in the target

634

00:37:07,400 --> 00:37:09,400

and there would be no exit wound.

635

00:37:09,400 --> 00:37:13,400

Because a bullet exiting the target is a complete waste of energy.

636

00:37:13,400 --> 00:37:16,400

You never want to see that as a professional assassin.

637

00:37:16,400 --> 00:37:22,400

In the wake of JFK's assassination, the magic bullet theory was dismissed for one simple reason.

638

00:37:22,400 --> 00:37:30,400

The sniper would have been on the right of the motorcade, but there was no exit wound on the left side of the president's head.

639

00:37:30,400 --> 00:37:36,400

But because it has less mass than a conventional bullet, a liquid bullet wouldn't exit the target.

640

00:37:36,400 --> 00:37:43,400

I was able to show in my experimentation that the pressure wave being introduced by the bullet into the skull and then bouncing off the other side

641

00:37:43,400 --> 00:37:46,400

will in fact expel all the parts of the bullet out.

642

00:37:48,400 --> 00:37:50,400

Ice projectiles.

643

00:37:50,400 --> 00:37:52,400

What do these people think of next?

644

00:37:52,400 --> 00:37:54,400

Fruity flavors?

645

00:37:54,400 --> 00:37:56,400

No.

646

00:37:56,400 --> 00:37:57,400

What's this?

647

00:37:57,400 --> 00:37:59,400

But the mythbusters aren't beaten yet.

648

00:37:59,400 --> 00:38:01,400

There's stuff to make a bullet out of.

649

00:38:01,400 --> 00:38:03,400

Imagine you're an overworked forensics expert.

650

00:38:03,400 --> 00:38:06,400

Would you be looking for a slug made of meat?

651

00:38:08,400 --> 00:38:10,400

What did you do today, honey?

652

00:38:10,400 --> 00:38:12,400

I made a meat bullet.

653

00:38:12,400 --> 00:38:15,400

Is that what the kids are calling it these days?

654

00:38:22,400 --> 00:38:24,400

That's a hard little steak.

655

00:38:24,400 --> 00:38:26,400

That's a loaded meat bullet.

656

00:38:26,400 --> 00:38:29,400

The result? Well, Adam's mouth's watering.

657

00:38:29,400 --> 00:38:36,400

I would bet you that this is the most successful test we have.

658

00:38:36,400 --> 00:38:42,400

Jamie's on a roll. He tries again. This time a bullet made of simple gelatin.

659

00:38:42,400 --> 00:38:44,400

I've got it cold.

660

00:38:44,400 --> 00:38:48,400

This is looking really promising because it's not at all brittle.

661

00:38:48,400 --> 00:38:50,400

I don't want you to mess with that. That's sealed up.

662

00:38:50,400 --> 00:38:52,400

That's pretty good stuff right there.

663

00:38:52,400 --> 00:38:55,400

Yeah, it's a little bit flexible, a little bit hard.

664

00:38:55,400 --> 00:38:57,400

It's a little bit country, a little bit rock and roll.

665

00:38:57,400 --> 00:39:00,400

Meanwhile, some interesting mail has arrived.

666

00:39:00,400 --> 00:39:03,400

A reply from the CIA.

667

00:39:04,400 --> 00:39:11,400

Operational files of the CIA are exempt from the publication provisions of the Freedom of Information Act.

668

00:39:11,400 --> 00:39:17,400

The files that would contain responsive records, if any, exist are not subject to search.

669

00:39:17,400 --> 00:39:21,400

What that seems to say is there's almost definitely something like this,

670

00:39:21,400 --> 00:39:24,400

but because it's being used, they can't tell us about it.

671

00:39:24,400 --> 00:39:27,400

It's not subject to a Freedom of Information Act request.

672

00:39:27,400 --> 00:39:29,400

Request denied.

673

00:39:37,400 --> 00:39:39,400

Jamie, let's put up a dummy.

674

00:39:41,400 --> 00:39:46,400

Time to see if the Mythbusters magic bullets are at home on the range.

675

00:39:47,400 --> 00:39:53,400

How you doing, buddy? How you doing? Yeah, you're doing so good. We're going to shoot you.

676

00:39:53,400 --> 00:40:00,400

To make sure everything's above board, we've had to call in one of San Francisco's finest to oversee this shoot.

677

00:40:00,400 --> 00:40:04,400

I have a concern about what we do if the rifle doesn't fire, actually.

678

00:40:04,400 --> 00:40:08,400

If we get the round too cold and when we pull the trigger, it doesn't fire.

679

00:40:08,400 --> 00:40:10,400

Is it in danger of actually going off if it warms up?

680

00:40:10,400 --> 00:40:15,400

Yes, it can. That's why I just wait a few minutes before trying to take it out.

681

00:40:15,400 --> 00:40:18,400

Wait a few minutes, don't approach it. Just get back.

682

00:40:18,400 --> 00:40:22,400

Just in case, the guys will fire the rifle using a remote rig.

683

00:40:22,400 --> 00:40:25,400

In this case, a piece of string tied to the trigger.

684

00:40:35,400 --> 00:40:38,400

Well, that's a nice meat bullet if I ever saw one.

685

00:40:39,400 --> 00:40:41,400

Which I never have.

686

00:40:41,400 --> 00:40:44,400

But will it make mincemeat of the dummy?

687

00:40:44,400 --> 00:40:46,400

Three, two, one.

688

00:40:49,400 --> 00:40:50,400

Let's go take a look.

689

00:40:50,400 --> 00:40:54,400

The beef bullet exploded. Specs of meat are embedded in the torso.

690

00:40:54,400 --> 00:40:59,400

Unfortunately, there's also plenty of ballistics evidence left behind.

691

00:40:59,400 --> 00:41:05,400

It looks like half of the cornet didn't even explode. Didn't even ignite.

692

00:41:05,400 --> 00:41:07,400

It was less loud than before.

693

00:41:07,400 --> 00:41:11,400

It's a certain amount of, you know, stay in there ad-ness.

694

00:41:11,400 --> 00:41:14,400

You know, like, you need to plug the cartridge.

695

00:41:14,400 --> 00:41:15,400

Stay in there ad-ness?

696

00:41:15,400 --> 00:41:16,400

Yeah.

697

00:41:16,400 --> 00:41:17,400

Is that scientific?

698

00:41:17,400 --> 00:41:21,400

Maybe a gelatin bullet will have that elusive stay in there ad-ness.

699

00:41:21,400 --> 00:41:25,400

The gel is colored with food dye, so it'll show up in the dummy.

700

00:41:25,400 --> 00:41:27,400

Ready to fire, guys.

701

00:41:28,400 --> 00:41:29,400

Everybody ready?

702

00:41:29,400 --> 00:41:30,400

Well, all ready. Let's go.

703

00:41:30,400 --> 00:41:31,400

There we go.

704

00:41:31,400 --> 00:41:32,400

Good. Grab the cord.

705

00:41:32,400 --> 00:41:37,400

And three, two, one.

706

00:41:38,400 --> 00:41:39,400

Bullseye.

707

00:41:39,400 --> 00:41:40,400

That was a bigger boom.

708

00:41:40,400 --> 00:41:42,400

But there's still a problem.

709

00:41:42,400 --> 00:41:46,400

The gel bullet struck the dummy at three times the speed of sound

710

00:41:46,400 --> 00:41:50,400

and with a force of more than 2,000 pounds per square inch.

711

00:41:50,400 --> 00:41:51,400

But even so...

712

00:41:51,400 --> 00:41:52,400

It went in about an inch.

713

00:41:52,400 --> 00:41:54,400

That's not much penetration.

714

00:41:54,400 --> 00:41:58,400

If you compare the gel bullet with the effects of a real carcato,

715

00:41:58,400 --> 00:42:03,400

or a 6.65 millimeter round, fired from the same rifle,

716

00:42:03,400 --> 00:42:09,400

you can see that the frozen gel just won't work if firing over a distance.

717

00:42:14,400 --> 00:42:17,400

Now, how do I know which one's in the chamber?

718

00:42:17,400 --> 00:42:21,400

The guys have more success with a smaller firearm at close range.

719

00:42:24,400 --> 00:42:26,400

Judging by this, it's the best of all of them.

720

00:42:26,400 --> 00:42:29,400

That went at state intact and went all the way to the bone there.

721

00:42:29,400 --> 00:42:30,400

Yeah, point like rain.

722

00:42:30,400 --> 00:42:32,400

But if you have to be that close to the target,

723

00:42:32,400 --> 00:42:37,400

then you have to fire your magic bullet from something that doesn't look like a weapon.

724

00:42:37,400 --> 00:42:42,400

So, Jimmy, what are your thoughts about turning one of these into a gun?

725

00:42:43,400 --> 00:42:47,400

Well, do we want to shoot it like a rifle, like that?

726

00:42:47,400 --> 00:42:54,400

In 1978, an umbrella was the weapon in the sophisticated assassination of a Bulgarian defector.

727

00:42:55,400 --> 00:42:59,400

Georgi Markov was the victim of the most bizarre murder of modern technology,

728

00:42:59,400 --> 00:43:03,400

a sophisticated metal pellet fired from an umbrella into his thigh.

729

00:43:03,400 --> 00:43:09,400

Analysis showed the poison to be ricin, 70 times more lethal than the cyanide on the right.

730

00:43:09,400 --> 00:43:13,400

That umbrella insertion was brilliant and much more effective than an ice bullet.

731

00:43:13,400 --> 00:43:23,400

You know, bullets are not subtle, and the best bullet draws everybody's attention, including the victims, immediately.

732

00:43:24,400 --> 00:43:30,400

In true Mythbusters style, Jimmy's going to build his own umbrella gun from scratch.

733

00:43:30,400 --> 00:43:34,400

A chamber near the handle will be charged with compressed air from a dive tank.

734

00:43:34,400 --> 00:43:36,400

That's great, Jimmy.

735

00:43:36,400 --> 00:43:41,400

The air will drive the gel bullet from the umbrella tip at supersonic speed.

736

00:43:41,400 --> 00:43:45,400

It's a big call. The CIA would spend years developing such a weapon.

737

00:43:45,400 --> 00:43:47,400

Jimmy's got three days.

738

00:43:47,400 --> 00:43:51,400

I have no idea how fast that's going to propel something, but...

739

00:43:51,400 --> 00:43:55,400

In the realm of what we've done for Mythbusters, isn't this one of the most dangerous things we've tried yet?

740

00:43:55,400 --> 00:43:56,400

Probably.

741

00:43:56,400 --> 00:44:00,400

There is a lot of energy in there, and it's not to be underestimated.

742

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

Like I said, it will remove flesh from your bones.

743

00:44:07,400 --> 00:44:16,400

We're making a super high pressure gun here, and so I'm trying to keep it really simple and also make sure that it's safe.

744

00:44:16,400 --> 00:44:18,400

So I'm overbuilding it a little bit.

745

00:44:22,400 --> 00:44:27,400

So much stuff, and it's still not enough.

746

00:44:27,400 --> 00:44:29,400

I just can't get there from here.

747

00:44:29,400 --> 00:44:32,400

I've got to make everything from scratch.

748

00:44:33,400 --> 00:44:34,400

In the butt.

749

00:44:37,400 --> 00:44:39,400

I'm going to try one more thing.

750

00:44:39,400 --> 00:44:41,400

It should hold a little better than that, shouldn't it?

751

00:44:41,400 --> 00:44:43,400

I don't know what to think, so...

752

00:44:43,400 --> 00:44:47,400

Jimmy's getting frustrated. Air from the scuba tank is getting into the chamber.

753

00:44:47,400 --> 00:44:51,400

Unfortunately, it's getting out again almost as fast.

754

00:44:51,400 --> 00:44:54,400

I'm a little pissed off. This thing's taking way too long.

755

00:44:54,400 --> 00:44:56,400

What's going on with it?

756

00:44:56,400 --> 00:44:59,400

One stupid little seal. I have to walk away from it.

757

00:44:59,400 --> 00:45:03,400

I've been doing this all day, wasting way too much time on it.

758

00:45:06,400 --> 00:45:10,400

And when the troublesome gunbrella is finally tested with a BB...

759

00:45:10,400 --> 00:45:12,400

Watch out.

760

00:45:12,400 --> 00:45:14,400

Watch out.

761

00:45:16,400 --> 00:45:18,400

Adam's far from impressed.

762

00:45:18,400 --> 00:45:21,400

Yeah, it's only like three-quarters of an inch in there.

763

00:45:22,400 --> 00:45:24,400

Here, we can...

764

00:45:26,400 --> 00:45:28,400

Okay. About like that?

765

00:45:28,400 --> 00:45:29,400

Yeah.

766

00:45:33,400 --> 00:45:36,400

Interesting. It looks like it went in deeper.

767

00:45:36,400 --> 00:45:38,400

Say, seven inches.

768

00:45:38,400 --> 00:45:40,400

That's interesting.

769

00:45:40,400 --> 00:45:43,400

What did you waste your time? Did you just waste three days on this?

770

00:45:43,400 --> 00:45:44,400

Could be.

771

00:45:44,400 --> 00:45:47,400

Right off the bat, I think it's actually kind of disappointing.

772

00:45:47,400 --> 00:45:53,400

I mean, it's been three days working on this, like, super high-powered air reservoir to fire this thing,

773

00:45:53,400 --> 00:45:57,400

and this, you know, 50-dollar BB gun outperformed it right off the bat.

774

00:45:57,400 --> 00:46:01,400

I could have modified this to fit in that umbrella in a couple of hours.

775

00:46:01,400 --> 00:46:06,400

Adam scavenges a CO2 canister and trigger from an old air pistol.

776

00:46:10,400 --> 00:46:34,400

We're loaded and ready to go.

777

00:46:35,400 --> 00:46:38,400

CO2 cartridge from the pistol.

778

00:46:38,400 --> 00:46:39,400

Yeah.

779

00:46:39,400 --> 00:46:43,400

Loaded into the barrel, which goes up the center of the umbrella's chamber,

780

00:46:43,400 --> 00:46:46,400

and comes out the tip,

781

00:46:46,400 --> 00:46:52,400

and the trigger mechanism would be like a ball bearing on a leaf spring going...

782

00:46:52,400 --> 00:46:56,400

because that gun fires the same way the other one does, just a weight against that thing.

783

00:46:56,400 --> 00:46:58,400

Okay.

784

00:46:58,400 --> 00:47:00,400

That pretty cool?

785

00:47:00,400 --> 00:47:01,400

Yeah.

786

00:47:01,400 --> 00:47:03,400

So umbrella's at 30 paces.

787

00:47:03,400 --> 00:47:05,400

You're gonna be pitting your umbrella against my umbrella.

788

00:47:05,400 --> 00:47:07,400

My umbrella's gonna take you down.

789

00:47:07,400 --> 00:47:08,400

We'll see about that.

790

00:47:08,400 --> 00:47:09,400

Absolutely.

791

00:47:09,400 --> 00:47:11,400

You won't even know it's an umbrella.

792

00:47:11,400 --> 00:47:13,400

I mean, you won't even know it's not an umbrella.

793

00:47:17,400 --> 00:47:20,400

In California, a weapon like this is illegal,

794

00:47:20,400 --> 00:47:23,400

but we have police permission and supervision.

795

00:47:23,400 --> 00:47:30,400

Umbrella guns loaded, point blank, in three, two, one.

796

00:47:30,400 --> 00:47:32,400

Wow.

797

00:47:32,400 --> 00:47:34,400

That was really effective.

798

00:47:34,400 --> 00:47:36,400

That went all the way into the sternum.

799

00:47:36,400 --> 00:47:38,400

I mean, that went all the way in.

800

00:47:38,400 --> 00:47:45,400

The projectile is tiny, but could easily carry a lethal dose of poison.

801

00:47:45,400 --> 00:47:48,400

Both umbrellas worked better than the real guns.

802

00:47:48,400 --> 00:47:52,400

Looking at this 22-hole, Jamie, I see burn marks around the edge,

803

00:47:52,400 --> 00:47:55,400

whereas our two umbrella guns left absolutely no evidence at all

804

00:47:55,400 --> 00:47:57,400

that it was even a ballistic hit.

805

00:47:57,400 --> 00:47:58,400

It's just a hole.

806

00:47:58,400 --> 00:48:00,400

Yeah, and they did just as much damage.

807

00:48:00,400 --> 00:48:01,400

Absolutely.

808

00:48:01,400 --> 00:48:03,400

I mean, I think they're the cleanest things we got today.

809

00:48:03,400 --> 00:48:04,400

I'd go with the air gun.

810

00:48:04,400 --> 00:48:06,400

I'd go with the air gun myself.

811

00:48:06,400 --> 00:48:08,400

And the magic bullet?

812

00:48:08,400 --> 00:48:12,400

It seems any substance that would melt inside a human body

813

00:48:12,400 --> 00:48:16,400

is too fragile to be successfully fired from a high-powered weapon.

814

00:48:16,400 --> 00:48:18,400

So, myth busted?

815

00:48:18,400 --> 00:48:19,400

Absolutely.

816

00:48:19,400 --> 00:48:23,400

Does Roger McCarthy believe JFK was killed by a liquid bullet

817

00:48:23,400 --> 00:48:27,400

fired by a second sniper on the grassy knoll?

818

00:48:27,400 --> 00:48:31,400

The answer is, we'll never know until the National Archives finds

819

00:48:31,400 --> 00:48:33,400

President Kennedy's brain.

820

00:48:33,400 --> 00:48:36,400

Because President Kennedy's brain was not buried with his body.

821

00:48:36,400 --> 00:48:38,400

It was put in a specially sealed container

822

00:48:38,400 --> 00:48:41,400

and given to the National Archives for safekeeping.

823

00:48:41,400 --> 00:48:44,400

They have subsequently lost the President's brain.

824

00:48:57,400 --> 00:49:02,400

The National Archives