

1

00:00:00,000 --> 00:00:04,000

It may not look like it, but we're professionals. Do us a favor.

2

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

Don't try this at home! Whoa!

3

00:00:07,000 --> 00:00:11,000

On this major league episode of Mythbusters,

4

00:00:11,000 --> 00:00:18,000

the guys raid the randomizer for a medley of mind-bending minivits sent in by youth.

5

00:00:18,000 --> 00:00:19,000

Wow!

6

00:00:19,000 --> 00:00:21,000

First up, the fans ask,

7

00:00:21,000 --> 00:00:22,000

We're gathering data.

8

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

Do you really know the back of your hand like the proverbial proverb?

9

00:00:26,000 --> 00:00:27,000

Oh, oh, oh, pick me.

10

00:00:27,000 --> 00:00:28,000

Then,

11

00:00:28,000 --> 00:00:29,000

I've had it.

12

00:00:29,000 --> 00:00:35,000

Is a subaquatic cool pedal possible, plausible, or patently preposterous?

13

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

Most peculiar start to any race ever.

14

00:00:37,000 --> 00:00:38,000

Meanwhile,

15

00:00:38,000 --> 00:00:40,000

He is none other than Matt Cain.

16

00:00:40,000 --> 00:00:43,000

Carrie Grantontory, draft at Giant of Baseball.

17

00:00:43,000 --> 00:00:45,000

The man's got a keen in for an arm.

18

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

To pitch in with some monk magic,

19

00:00:48,000 --> 00:00:52,000

can you really pierce glass with a needle?

20

00:00:52,000 --> 00:00:56,000

And finally, you ask, does the potty dance...

21

00:00:56,000 --> 00:00:58,000

See, the potty dance is simple and basic.

22

00:00:58,000 --> 00:01:00,000

It can really help you hold it in for longer.

23

00:01:00,000 --> 00:01:01,000

I hope I don't go pee now.

24

00:01:01,000 --> 00:01:03,000

This is bi-off-crisis.

25

00:01:05,000 --> 00:01:08,000

Who are the Mythbusters?

26

00:01:08,000 --> 00:01:09,000

Adam Savage.

27

00:01:09,000 --> 00:01:10,000

Everybody okay?

28

00:01:10,000 --> 00:01:12,000

And Jamie Heineman.

29

00:01:12,000 --> 00:01:13,000

It's party time.

30

00:01:13,000 --> 00:01:18,000

Between them more than 30 years of special effects experience,

31

00:01:18,000 --> 00:01:20,000

together with Tori Belachie.

32

00:01:20,000 --> 00:01:22,000

We only have one shot at this.

33

00:01:22,000 --> 00:01:23,000

Brent Imahara.

34

00:01:23,000 --> 00:01:24,000

That is crazy!

35

00:01:24,000 --> 00:01:26,000

And Carrie Byron.

36

00:01:27,000 --> 00:01:30,000

They don't just tell the Myths,

37

00:01:30,000 --> 00:01:33,000

they put them to the test.

38

00:01:38,000 --> 00:01:40,000

Roll up, roll up.

39

00:01:40,000 --> 00:01:44,000

The randomizer returns to put your ideas in a lucky dip spin.

40

00:01:44,000 --> 00:01:46,000

It's time to take some fan suggestions.

41

00:01:46,000 --> 00:01:48,000

It's time to use the randomizer.

42

00:01:48,000 --> 00:01:49,000

That was good.

43

00:01:49,000 --> 00:01:51,000

I almost believe that you like this convention.

44

00:01:51,000 --> 00:01:52,000

Just roll it.

45

00:01:52,000 --> 00:01:54,000

Alright, here we go.

46

00:01:54,000 --> 00:01:57,000

And let's see what we got.

47

00:01:57,000 --> 00:01:59,000

Near Mythbusters, you know the phrase,

48

00:01:59,000 --> 00:02:01,000

I know it like the back of my hand?

49

00:02:01,000 --> 00:02:03,000

I think you guys should put this to the test.

50

00:02:03,000 --> 00:02:06,000

How well do people actually know the backs of their hand?

51

00:02:06,000 --> 00:02:07,000

I like that.

52

00:02:07,000 --> 00:02:09,000

I can't believe we haven't done it before.

53

00:02:09,000 --> 00:02:10,000

Me neither.

54

00:02:10,000 --> 00:02:11,000

Let's do it.

55

00:02:11,000 --> 00:02:12,000

Okay.

56

00:02:12,000 --> 00:02:14,000

It's a ubiquitous idiomatic phrase

57

00:02:14,000 --> 00:02:17,000

that has been unchallenged for over 60 years.

58

00:02:17,000 --> 00:02:18,000

Until now.

59

00:02:18,000 --> 00:02:21,000

Is the implicit premise even true?

60

00:02:21,000 --> 00:02:24,000

Do we really know the back of our hands that well?

61

00:02:24,000 --> 00:02:28,000

To find out, it's facts on, gloves off.

62

00:02:28,000 --> 00:02:29,000

So what's the plan?

63

00:02:29,000 --> 00:02:31,000

Well, I'm worried this might be too difficult,

64

00:02:31,000 --> 00:02:36,000

but what if we took pictures of the backs of 100 people's hands

65

00:02:36,000 --> 00:02:37,000

and we use those as a database,

66

00:02:37,000 --> 00:02:40,000

then we bring in say 12 volunteers,

67

00:02:40,000 --> 00:02:41,000

we take pictures of their hands,

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00:02:41,000 --> 00:02:44,000

and then we make them pick their hand out of a lineup.

69

00:02:44,000 --> 00:02:46,000

Okay, well once they get here,

70

00:02:46,000 --> 00:02:49,000

we should put mittens on them or something so they can't cheat.

71

00:02:49,000 --> 00:02:50,000

Totally right.

72

00:02:50,000 --> 00:02:52,000

Let's go get some volunteers.

73

00:02:52,000 --> 00:02:53,000

Let's do it.

74

00:02:53,000 --> 00:02:57,000

So first up, it's a lineup at a handy location.

75

00:02:57,000 --> 00:02:58,000

Jamie's mind?

76

00:02:58,000 --> 00:03:01,000

Place always makes me feel like I'm inside the neutrality

77

00:03:01,000 --> 00:03:02,000

of the Heinemann brain.

78

00:03:02,000 --> 00:03:05,000

Now that has an ocean background in it.

79

00:03:05,000 --> 00:03:06,000

This is a photo studio,

80

00:03:06,000 --> 00:03:08,000

and we've got 100 people waiting outside for us

81

00:03:08,000 --> 00:03:11,000

to photograph the backs of their hands.

82

00:03:11,000 --> 00:03:14,000

Just how well do you know the back of your hand

83

00:03:14,000 --> 00:03:15,000

with the help of a little photography,

84

00:03:15,000 --> 00:03:18,000

some test subjects, and some volunteers?

85

00:03:18,000 --> 00:03:20,000

This rig is going to help us answer that.

86

00:03:20,000 --> 00:03:22,000

Go right on over here and Adam will show you what to do.

87

00:03:22,000 --> 00:03:25,000

Each of our 100 volunteers is going to walk into this room,

88

00:03:25,000 --> 00:03:27,000

place their hand on this platform,

89

00:03:27,000 --> 00:03:29,000

the lighting will be identical,

90

00:03:29,000 --> 00:03:30,000

the framing will be identical,

91

00:03:30,000 --> 00:03:32,000

and when we've got all 100 of those photographs,

92

00:03:32,000 --> 00:03:33,000

next!

93

00:03:33,000 --> 00:03:36,000

That's the database with which we are going to put this myth

94

00:03:36,000 --> 00:03:37,000

to the test.

95

00:03:37,000 --> 00:03:39,000

We're gathering data.

96

00:03:39,000 --> 00:03:40,000

With 50 guys,

97

00:03:40,000 --> 00:03:41,000

Excellent.

98

00:03:41,000 --> 00:03:42,000

Thanks very much.

99

00:03:42,000 --> 00:03:43,000

and 50 gals,

100

00:03:43,000 --> 00:03:44,000

snap for science,

101

00:03:44,000 --> 00:03:47,000

Adam and Jamie have their library lineup.

102

00:03:47,000 --> 00:03:49,000

So, alright, let's get to testing.

103

00:03:49,000 --> 00:03:51,000

And back at Hand HQ,

104

00:03:51,000 --> 00:03:54,000

12 blind-folded volunteers are wheeled in

105

00:03:54,000 --> 00:03:56,000

to take the actual test.

106

00:03:56,000 --> 00:03:58,000

Let me drop your elbow a little bit.

107

00:03:58,000 --> 00:04:00,000

Our test subjects are going to have to pick

108

00:04:00,000 --> 00:04:02,000

the back of their hand out of a lineup.

109

00:04:02,000 --> 00:04:04,000

That lineup is going to include 9 other hands

110

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

picked from the 50 that we took photos of.

111

00:04:07,000 --> 00:04:08,000

Here's the first one.

112

00:04:08,000 --> 00:04:11,000

Alright, let's pick some hands that look similar.

113

00:04:11,000 --> 00:04:14,000

Now, already we're clearly controlling for gender,

114

00:04:14,000 --> 00:04:17,000

but we are also going to control for race and shape.

115

00:04:17,000 --> 00:04:18,000

The myth isn't,

116

00:04:18,000 --> 00:04:21,000

can you pick your hand out of a random lineup

117

00:04:21,000 --> 00:04:23,000

of people's hands?

118

00:04:23,000 --> 00:04:26,000

I always love it when it all starts to come together.

119

00:04:26,000 --> 00:04:27,000

Let's bring her in.

120

00:04:27,000 --> 00:04:30,000

The myth is that it's one of the easiest possible things

121

00:04:30,000 --> 00:04:32,000

because you know this better than anything else.

122

00:04:32,000 --> 00:04:34,000

That's what we're here to find out.

123

00:04:34,000 --> 00:04:36,000

Now, Jill, one of these pictures

124

00:04:36,000 --> 00:04:38,000

is of the back of your hand.

125

00:04:38,000 --> 00:04:40,000

We would like you within 60 seconds.

126

00:04:40,000 --> 00:04:42,000

Tell us which one you think is yours.

127

00:04:42,000 --> 00:04:43,000

Okay.

128

00:04:43,000 --> 00:04:44,000

Um...

129

00:04:44,000 --> 00:04:47,000

Interestingly, volunteer number one hesitates.

130

00:04:47,000 --> 00:04:49,000

Maybe it isn't as simple as the myth would have us believe.

131

00:04:49,000 --> 00:04:50,000

I think it's 8 or 9.

132

00:04:50,000 --> 00:04:52,000

You think it's 8 or 9?

133

00:04:52,000 --> 00:04:54,000

I'm going to go with 9.

134

00:04:54,000 --> 00:04:55,000

Let's see how you did.

135

00:04:55,000 --> 00:04:56,000

You were right.

136

00:04:56,000 --> 00:04:57,000

It's you.

137

00:04:57,000 --> 00:04:58,000

Yes!

138

00:04:58,000 --> 00:04:59,000

Well done!

139

00:04:59,000 --> 00:05:00,000

Excellent!

140

00:05:01,000 --> 00:05:04,000

So, in decision or not, the myth is off to a good start.

141

00:05:04,000 --> 00:05:05,000

You nailed it.

142

00:05:05,000 --> 00:05:06,000

Right away.

143

00:05:06,000 --> 00:05:07,000

How did you do that?

144

00:05:07,000 --> 00:05:10,000

And the next couple of hand-picked hand pickers.

145

00:05:10,000 --> 00:05:12,000

That is a fast and decisive decision

146

00:05:12,000 --> 00:05:13,000

and you would be correct.

147

00:05:13,000 --> 00:05:16,000

Are not only successful, but much faster.

148

00:05:16,000 --> 00:05:18,000

I would probably say 2 right off the bat.

149

00:05:18,000 --> 00:05:19,000

2.

150

00:05:19,000 --> 00:05:20,000

Yeah.

151

00:05:20,000 --> 00:05:21,000

8.

152

00:05:21,000 --> 00:05:23,000

Dimitri is an interesting case.

153

00:05:23,000 --> 00:05:25,000

He, like a couple of other of our test subjects,

154

00:05:25,000 --> 00:05:28,000

identified his hand almost instantly.

155

00:05:28,000 --> 00:05:29,000

Really? That quickly?

156

00:05:29,000 --> 00:05:30,000

Yeah.

157

00:05:30,000 --> 00:05:31,000

Alright.

158

00:05:31,000 --> 00:05:32,000

And it's you.

159

00:05:32,000 --> 00:05:35,000

But he told us that as he walked up and saw there's 10 hands,

160

00:05:35,000 --> 00:05:36,000

he's got to pick his out.

161

00:05:36,000 --> 00:05:38,000

He thought, oh, this is going to be really difficult

162

00:05:38,000 --> 00:05:40,000

until he saw his hand.

163

00:05:40,000 --> 00:05:42,000

And then he knew that was his.

164

00:05:42,000 --> 00:05:43,000

Number one.

165

00:05:43,000 --> 00:05:44,000

Yep. You're correct.

166

00:05:44,000 --> 00:05:45,000

Cool.

167

00:05:45,000 --> 00:05:46,000

That's sort of what's happening to us.

168

00:05:46,000 --> 00:05:49,000

In the abstract, we thought this test would be really difficult.

169

00:05:49,000 --> 00:05:53,000

In the concrete, it's turning out to be a lot easier than we thought.

170

00:05:53,000 --> 00:05:55,000

With only one failure.

171

00:05:55,000 --> 00:05:56,000

I'm sorry, it's not you.

172

00:05:56,000 --> 00:05:59,000

Out of 12, the numbers are very persuasive.

173

00:05:59,000 --> 00:06:00,000

Definitely number one.

174

00:06:00,000 --> 00:06:04,000

The overwhelming majority of our volunteers know the back of their hands like...

175

00:06:04,000 --> 00:06:05,000

Bingo!

176

00:06:05,000 --> 00:06:07,000

You know the ending to this line.

177

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

But it's not over yet.

178

00:06:09,000 --> 00:06:12,000

I isn't the proverb based on another body part.

179

00:06:12,000 --> 00:06:17,000

Is it possible to replace back of the hand for another anatomical article?

180

00:06:17,000 --> 00:06:18,000

She nailed it.

181

00:06:18,000 --> 00:06:20,000

Question is, what?

182

00:06:20,000 --> 00:06:23,000

I feel like I would know the palms of my hands better than the backs of my hands.

183

00:06:23,000 --> 00:06:26,000

And we know our faces better, but that's too easy.

184

00:06:26,000 --> 00:06:29,000

We do brush our teeth every single night.

185

00:06:29,000 --> 00:06:30,000

Yeah, let's do teeth.

186

00:06:30,000 --> 00:06:35,000

What if we did teeth and palms against backs of hands and see how they compare?

187

00:06:35,000 --> 00:06:36,000

Okay.

188

00:06:36,000 --> 00:06:37,000

Alright.

189

00:06:39,000 --> 00:06:42,000

Next up, the randomizer throws up some...

190

00:06:42,000 --> 00:06:44,000

Monk Mayhem?

191

00:06:44,000 --> 00:06:46,000

Okay, I can't wait.

192

00:06:46,000 --> 00:06:47,000

Alright.

193

00:06:49,000 --> 00:06:50,000

Alright.

194

00:06:50,000 --> 00:06:57,000

Dear Mythbusters, I've been seeing online a lot of people mostly shall in monks throwing needles through panes of glass.

195

00:06:57,000 --> 00:06:58,000

Oh yeah, I've seen this.

196

00:06:58,000 --> 00:07:01,000

The monks are standing fairly close to the glass, maybe three or four feet away.

197

00:07:01,000 --> 00:07:03,000

And they have these fairly heavy needles.

198

00:07:03,000 --> 00:07:06,000

They throw them to the glass without shattering it.

199

00:07:06,000 --> 00:07:08,000

Do they really say, uh?

200

00:07:08,000 --> 00:07:09,000

No, I just made that up.

201

00:07:09,000 --> 00:07:15,000

Alright, well they want to know, is this an actual occurrence or is this just special effects?

202

00:07:15,000 --> 00:07:24,000

According to the internet, this myth's a monk slam dunk, as the needle somehow penetrates the glass without causing it to shatter.

203

00:07:24,000 --> 00:07:27,000

But is this just shall in shenanigans?

204

00:07:27,000 --> 00:07:31,000

Okay, in watching the video, it looks like the needle is pretty chunky, but what about the glass?

205

00:07:31,000 --> 00:07:33,000

It's kind of hard to tell.

206

00:07:33,000 --> 00:07:34,000

Why don't we do this?

207

00:07:34,000 --> 00:07:38,000

Let's just take regular window glass, which is about eighth inch thick, and we just start throwing needles at it.

208

00:07:38,000 --> 00:07:40,000

And we'll see if we can punch a hole through it.

209

00:07:40,000 --> 00:07:41,000

Sounds great.

210

00:07:41,000 --> 00:07:45,000

And depending on what we get, we can either ramp up the speed of the needle or use the thinner glass.

211

00:07:47,000 --> 00:07:53,000

Now in this myth, we see what appears to be a shall in monk throwing a needle, such as this one, through a piece of glass.

212

00:07:53,000 --> 00:07:57,000

And we've got some leftover one-eighth inch window glass from the priest's experiment.

213

00:07:58,000 --> 00:08:01,000

You guys okay? Everybody okay?

214

00:08:01,000 --> 00:08:04,000

We've also got our high speed scale to tell us how fast we're throwing.

215

00:08:04,000 --> 00:08:10,000

But before we actually throw needles at glass, we've set up our dartboard just to see what we're going to get.

216

00:08:13,000 --> 00:08:17,000

So first up, the guys are stepping up to the practice plate.

217

00:08:17,000 --> 00:08:25,000

Generally demonstrating some sort of physical feat on camera is something I dread, mostly because I lack any sort of athletic skill, coordination, or grace.

218

00:08:25,000 --> 00:08:30,000

But maybe throwing needles will be my thing, because I have spent some time with the dartboard.

219

00:08:30,000 --> 00:08:33,000

And sure enough, Carrie's got this one covered.

220

00:08:33,000 --> 00:08:39,000

Because other than the odd bounce back, she's hitting the board first time every time.

221

00:08:39,000 --> 00:08:41,000

Eh? Nobody saw it?

222

00:08:41,000 --> 00:08:49,000

And when Grant and Tori step up to the plate, they too find that embedding the board is surprisingly simple.

223

00:08:49,000 --> 00:08:53,000

Will the penetration without shatteration see us straightforward?

224

00:08:53,000 --> 00:08:55,000

So my top speed was 28 miles an hour.

225

00:08:55,000 --> 00:08:58,000

Grant's was 38 and Tori's was 47.

226

00:08:58,000 --> 00:09:00,000

Now we're moving on to glass.

227

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

And though I think speed's going to be a major factor, we also want to give this a go, because this is really fun.

228

00:09:05,000 --> 00:09:08,000

Indeed it is. And first up is the lady herself.

229

00:09:11,000 --> 00:09:13,000

Putting a hole in 8 inch glass.

230

00:09:13,000 --> 00:09:16,000

Let's see if you can punch a hole through it with the needle.

231

00:09:18,000 --> 00:09:21,000

Looks like the window got its revenge.

232

00:09:21,000 --> 00:09:26,000

Yep, in take one, the needle just didn't have the power to pierce the paint.

233

00:09:26,000 --> 00:09:30,000

Trouble is, either does take two, three, or four.

234

00:09:30,000 --> 00:09:35,000

Next up is Grant. Will his extra throwing speed give him a hole in one?

235

00:09:39,000 --> 00:09:41,000

This seems a little more dangerous than I thought.

236

00:09:41,000 --> 00:09:43,000

Why? Because he's bleeding?

237

00:09:43,000 --> 00:09:44,000

Yeah.

238

00:09:44,000 --> 00:09:50,000

Despite a 10 mile an hour increase on Carrie, Grant's not getting any penetration satisfaction.

239

00:09:50,000 --> 00:09:57,000

Enter Tori. He has a significant and sizable 40% more kinetic energy to bring to the party.

240

00:10:00,000 --> 00:10:03,000

Whoa, dude, you're making good contact.

241

00:10:04,000 --> 00:10:06,000

It's the hardest throw yet.

242

00:10:06,000 --> 00:10:07,000

Ooh, straight.

243

00:10:07,000 --> 00:10:10,000

But it's still barely glanced the glass.

244

00:10:12,000 --> 00:10:18,000

Despite every effort, the only thing busted around here is the myth. But all is not lost.

245

00:10:19,000 --> 00:10:23,000

So far, we have not been able to get a single needle to fly through the glass.

246

00:10:23,000 --> 00:10:28,000

I just don't think we're throwing these needles fast enough. I mean, we're hitting the glass, so we're hitting it correctly.

247

00:10:28,000 --> 00:10:33,000

The problem is, the speed of the needle. We need to bring somebody in who can throw objects much faster than us.

248

00:10:33,000 --> 00:10:37,000

I think we need to bring in a professional baseball pitcher.

249

00:10:37,000 --> 00:10:41,000

And not just any baseball pitcher, but one of the best in the business.

250

00:10:43,000 --> 00:10:45,000

Later, on Myth Busters.

251

00:10:46,000 --> 00:10:49,000

Adam and Jamie ramp it down to science it up.

252

00:10:49,000 --> 00:10:51,000

Big problem here is traction.

253

00:10:51,000 --> 00:10:54,000

And did we mention Matt Cain's stopping by?

254

00:10:54,000 --> 00:10:56,000

My God, I can't believe this.

255

00:11:05,000 --> 00:11:08,000

The numbers are in, and we do in fact know the back of our hands.

256

00:11:08,000 --> 00:11:12,000

They don't tear us for the next test subject. Ooh, ooh, ooh, pick me.

257

00:11:12,000 --> 00:11:16,000

But the proverb isn't proven yet. Is it anatomically accurate?

258

00:11:16,000 --> 00:11:21,000

So teeth and palms. Yep. Same methodology as backs of hands.

259

00:11:21,000 --> 00:11:23,000

I think so. Let's keep on going with it.

260

00:11:23,000 --> 00:11:31,000

So the number to beat is 11 out of 12. And first up, will our volunteers have better fortune reading their palms?

261

00:11:31,000 --> 00:11:32,000

I think it's eight.

262

00:11:32,000 --> 00:11:34,000

Two quick correct results.

263

00:11:34,000 --> 00:11:36,000

And you've got it right. Yes.

264

00:11:36,000 --> 00:11:37,000

And it's a good start.

265

00:11:37,000 --> 00:11:38,000

And you're right.

266

00:11:38,000 --> 00:11:43,000

But by palm picker number three, it's clear it's a trickier task.

267

00:11:43,000 --> 00:11:44,000

Yeah, or four.

268

00:11:46,000 --> 00:11:49,000

That is not you. Damn. Looks a lot like me.

269

00:11:49,000 --> 00:11:53,000

You know, Jamie, it's funny. I thought that the palms would be even more distinctive than the backs of the hands.

270

00:11:53,000 --> 00:11:54,000

It's nine.

271

00:11:54,000 --> 00:11:55,000

Really? Yeah.

272

00:11:55,000 --> 00:11:58,000

All right, let's see. You are correct.

273

00:11:59,000 --> 00:12:02,000

But all at once, they end up looking kind of more uniform.

274

00:12:03,000 --> 00:12:05,000

Well, let's see what the numbers say.

275

00:12:05,000 --> 00:12:07,000

The numbers kind of go with four.

276

00:12:08,000 --> 00:12:09,000

All right.

277

00:12:09,000 --> 00:12:10,000

I'm not very confident in that.

278

00:12:10,000 --> 00:12:11,000

I'm not very confident.

279

00:12:11,000 --> 00:12:12,000

But it's not you.

280

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

Yeah.

281

00:12:13,000 --> 00:12:18,000

Soon add up to a decisive conclusion. Picking our palms out of a lineup is down for the count.

282

00:12:18,000 --> 00:12:19,000

That's not number two.

283

00:12:19,000 --> 00:12:21,000

That one's way tougher.

284

00:12:21,000 --> 00:12:25,000

The results of the palms are in seven out of 12 of our test subjects.

285

00:12:25,000 --> 00:12:28,000

We're correctly able to identify their palm in a lineup.

286

00:12:28,000 --> 00:12:35,000

That's statistically better than guessing by a little bit, but not nearly the level of familiarity we would need to confirm.

287

00:12:35,000 --> 00:12:40,000

I know it like the palm of my hand as an idiomatic phrase. Poms are out.

288

00:12:40,000 --> 00:12:43,000

Which only strengthens the case for a myth confirmation.

289

00:12:43,000 --> 00:12:46,000

I'll let you guess what our next test is.

290

00:12:46,000 --> 00:12:50,000

After all, dental records like a fingerprint are used for legal identification.

291

00:12:50,000 --> 00:12:53,000

I think I had a nightmare like this one.

292

00:12:53,000 --> 00:12:56,000

Surely they're more distinctive than the back of your hand.

293

00:12:56,000 --> 00:12:59,000

Now we're about to test how well people recognize their own teeth.

294

00:12:59,000 --> 00:13:03,000

Take your time. Look at them all. Let us know which ones you think are yours.

295

00:13:03,000 --> 00:13:13,000

And from the get go, I've always thought that this would be the test that people had the easiest time of recognizing which set was their choppers.

296

00:13:13,000 --> 00:13:15,000

That one's mine.

297

00:13:15,000 --> 00:13:17,000

Wow, you know your teeth very well.

298

00:13:17,000 --> 00:13:19,000

I feel them every day.

299

00:13:19,000 --> 00:13:21,000

Adam's assumption.

300

00:13:21,000 --> 00:13:23,000

Yes, you are in fact correct.

301

00:13:23,000 --> 00:13:26,000

Would mean 12 from 12 correct results.

302

00:13:26,000 --> 00:13:27,000

Which one?

303

00:13:27,000 --> 00:13:28,000

Number eight.

304

00:13:28,000 --> 00:13:30,000

Really? That fast.

305

00:13:30,000 --> 00:13:32,000

Yeah, there you go.

306

00:13:32,000 --> 00:13:34,000

Ding! You win.

307

00:13:34,000 --> 00:13:38,000

And as time is crunched, it's possible he's right.

308

00:13:38,000 --> 00:13:41,000

You did it. You nailed it.

309

00:13:41,000 --> 00:13:42,000

Yay!

310

00:13:42,000 --> 00:13:43,000

That one.

311

00:13:43,000 --> 00:13:46,000

Really? That quickly. You're correct.

312

00:13:46,000 --> 00:13:49,000

Was this one harder than the back of the hand?

313

00:13:49,000 --> 00:13:51,000

Just two left and it's down to the wire.

314

00:13:51,000 --> 00:13:53,000

I think it's number one.

315

00:13:53,000 --> 00:13:55,000

Let's see how you did.

316

00:13:55,000 --> 00:13:56,000

Nope.

317

00:13:56,000 --> 00:13:57,000

No.

318

00:13:57,000 --> 00:13:59,000

You in fact were number seven.

319

00:13:59,000 --> 00:14:01,000

Oh my God.

320

00:14:01,000 --> 00:14:02,000

You're good.

321

00:14:02,000 --> 00:14:03,000

You are number one.

322

00:14:03,000 --> 00:14:09,000

And it's those two final failures that mean this viewer requested mini-myth is all wrapped up.

323

00:14:09,000 --> 00:14:10,000

So how do you want to call this?

324

00:14:10,000 --> 00:14:14,000

Well, I think, I know it like the back of my hand is an idiomatic phrase we have to leave alone

325

00:14:14,000 --> 00:14:20,000

as essentially confirmed all of our test subjects were totally intimate with what the backs of their hands look like.

326

00:14:20,000 --> 00:14:22,000

I agree, but one more thing.

327

00:14:22,000 --> 00:14:23,000

What's that?

328

00:14:23,000 --> 00:14:24,000

Don't ever want to be a dentist.

329

00:14:24,000 --> 00:14:26,000

No, me neither.

330

00:14:32,000 --> 00:14:36,000

So we've been trying to throw a needle through a sheet of glass.

331

00:14:36,000 --> 00:14:44,000

Now we started with 1-1 1-1 inch glass, perfected our technique, slowly increased our speeds and so far we haven't had any success.

332

00:14:44,000 --> 00:14:46,000

So we need to ramp up the velocity of our needle.

333

00:14:46,000 --> 00:14:50,000

So we have brought in one of the fastest pitchers in the world of baseball.

334

00:14:50,000 --> 00:14:52,000

He is a giant in the field.

335

00:14:52,000 --> 00:14:57,000

In fact, he is one of 23 who's ever pitched a perfect game in the history of baseball.

336

00:14:57,000 --> 00:14:59,000

He is none other than Matt Kane.

337

00:14:59,000 --> 00:15:00,000

Oh my God, I cannot believe this.

338

00:15:00,000 --> 00:15:06,000

If anyone can take aim at this myth, it's San Francisco giant superstar pitcher Matt Kane.

339

00:15:06,000 --> 00:15:17,000

Not only does he have a frighteningly fast fastball, but his perfect game striking out 14 batters on the way to a 10-zip win placed him alongside the greatest ever.

340

00:15:17,000 --> 00:15:19,000

He's a living legend.

341

00:15:19,000 --> 00:15:21,000

But first we're going to find out how fast he can throw.

342

00:15:21,000 --> 00:15:23,000

So we're going to have a little matchup.

343

00:15:23,000 --> 00:15:26,000

Tori's going to throw a baseball, then Matt Kane's going to throw a baseball.

344

00:15:26,000 --> 00:15:30,000

I'm going to measure it with a speed gun and then we're all going to laugh at Tori.

345

00:15:30,000 --> 00:15:32,000

Yep, to prove they've got the best in the business.

346

00:15:32,000 --> 00:15:34,000

I'm going to warm up a little bit here.

347

00:15:34,000 --> 00:15:37,000

Tori and Matt are going to have a little head to head.

348

00:15:37,000 --> 00:15:38,000

Hey Matt.

349

00:15:38,000 --> 00:15:44,000

All right, just to warn you, I played a little little league growing up, so let me just show you how I do it.

350

00:15:44,000 --> 00:15:46,000

Go Tori!

351

00:15:48,000 --> 00:15:50,000

Wow, that was scorching hot.

352

00:15:50,000 --> 00:15:53,000

A scorching hot 48 miles an hour.

353

00:15:53,000 --> 00:15:56,000

All right, so what do you think? You got a shot?

354

00:15:56,000 --> 00:15:58,000

Um, no.

355

00:15:58,000 --> 00:16:01,000

My money's on Matt.

356

00:16:03,000 --> 00:16:05,000

All right, what did he get?

357

00:16:05,000 --> 00:16:09,000

Do you want me to say this out loud or is this going to diminish you as a man?

358

00:16:09,000 --> 00:16:11,000

How do you feel about 92?

359

00:16:11,000 --> 00:16:14,000

Wow! All right, 92. Well, I think you're ready to start throwing needles.

360

00:16:14,000 --> 00:16:16,000

I think we can move on.

361

00:16:16,000 --> 00:16:18,000

You've learned well.

362

00:16:18,000 --> 00:16:20,000

I think Matt Kane is the man for the job.

363

00:16:20,000 --> 00:16:23,000

I mean, he doubled the speed at which Tori could throw.

364

00:16:24,000 --> 00:16:27,000

So for the myth, we're going to move on to one eighth inch glass.

365

00:16:27,000 --> 00:16:30,000

Then after that, if it doesn't work, one sixteenth inch.

366

00:16:30,000 --> 00:16:34,000

If that doesn't work, we're going to go on to antique glass, which is only one thirty second inch.

367

00:16:34,000 --> 00:16:36,000

This might give some validity to the myth.

368

00:16:36,000 --> 00:16:39,000

I mean, the man's got a cannon for an arm.

369

00:16:39,000 --> 00:16:44,000

And once the cannon's got his ammunition, it's all systems thrown.

370

00:16:47,000 --> 00:16:49,000

It looks like it's chippy.

371

00:16:51,000 --> 00:16:53,000

Yeah, I think that was my best shot right there.

372

00:16:53,000 --> 00:16:57,000

Why don't we check the high speed and see how fast you're throwing, but it looks like it's hitting really well.

373

00:16:57,000 --> 00:16:59,000

Yeah, it's still not punching a hole.

374

00:16:59,000 --> 00:17:05,000

Incredibly, the high speed reveals that Matt's best throw peaked at a hundred and five miles an hour,

375

00:17:05,000 --> 00:17:09,000

equalling the fastest baseball pitch ever recorded.

376

00:17:09,000 --> 00:17:12,000

Okay, Matt is throwing these needles so much harder than we were.

377

00:17:12,000 --> 00:17:17,000

I mean, just to illustrate the point, as I was picking them up, I noticed they're bent.

378

00:17:17,000 --> 00:17:22,000

That just shows how much energy is actually going into that needle and trying to penetrate that glass.

379

00:17:23,000 --> 00:17:28,000

But despite the speed and power, the one eighth inch glass holds firm until...

380

00:17:33,000 --> 00:17:34,000

I wish that had been the one.

381

00:17:34,000 --> 00:17:35,000

Oh my God!

382

00:17:36,000 --> 00:17:37,000

Wow, is right.

383

00:17:37,000 --> 00:17:45,000

With the reduced mass of the needle compared to a baseball, Matt manages to unleash a one hundred and thirteen miles an hour missile

384

00:17:45,000 --> 00:17:53,000

that takes a chip off the old block, but still fails to fly through, which means it's time to trim the fat.

385

00:17:53,000 --> 00:17:55,000

Okay, so this is one sixteenth inch glass.

386

00:17:55,000 --> 00:17:59,000

Now, because it's thinner, it reduces the amount of energy required to punch through,

387

00:17:59,000 --> 00:18:04,000

but the trade-off is that instead of punching a hole through it, it may shatter completely.

388

00:18:05,000 --> 00:18:07,000

All right, Matt, remember all your shoddling training.

389

00:18:07,000 --> 00:18:09,000

I want you to just punch a hole right through that glass.

390

00:18:09,000 --> 00:18:14,000

Once again, Matt marches needle after needle with only a divot for his efforts.

391

00:18:14,000 --> 00:18:15,000

That was a good one.

392

00:18:15,000 --> 00:18:16,000

That sounded good.

393

00:18:16,000 --> 00:18:17,000

Did you leave a little nicked?

394

00:18:17,000 --> 00:18:18,000

Yeah.

395

00:18:18,000 --> 00:18:22,000

But on throw eight, there's finally a shatter to celebrate.

396

00:18:23,000 --> 00:18:25,000

What the heck happened there?

397

00:18:25,000 --> 00:18:26,000

The needle shatter.

398

00:18:26,000 --> 00:18:28,000

You shattered it a little bit.

399

00:18:28,000 --> 00:18:30,000

You are shallowing it.

400

00:18:30,000 --> 00:18:38,000

Amazingly, Matt has busted the steel needle and left the glass utterly untouched, which doesn't bode well for the myth.

401

00:18:38,000 --> 00:18:41,000

Okay, so Matt couldn't break the one sixteenth inch glass.

402

00:18:41,000 --> 00:18:43,000

We're moving on to one thirty second.

403

00:18:43,000 --> 00:18:44,000

This is actually hard to find.

404

00:18:44,000 --> 00:18:46,000

You have to find this in an antique store.

405

00:18:46,000 --> 00:18:47,000

It's very thin glass.

406

00:18:47,000 --> 00:18:49,000

If you can make it through here, I think it's still plausible.

407

00:18:49,000 --> 00:18:50,000

Indeed.

408

00:18:50,000 --> 00:18:56,000

But the problem here is that this glass is so fragile, it may sooner get smashed and speared.

409

00:19:00,000 --> 00:19:02,000

You broke the glass with a needle.

410

00:19:02,000 --> 00:19:03,000

That's insane.

411

00:19:05,000 --> 00:19:08,000

Yes, but it didn't exactly happen like the monk did in the video.

412

00:19:08,000 --> 00:19:10,000

The glass is so fragile.

413

00:19:10,000 --> 00:19:13,000

So at this point, it doesn't go through, it just smashes the glass.

414

00:19:13,000 --> 00:19:18,000

Yeah, in order for us to get the needle to punch a clean hole, we're going to have to get these needles traveling a lot faster.

415

00:19:18,000 --> 00:19:21,000

All right, well, this is busted for a human, but amazing achievement.

416

00:19:21,000 --> 00:19:22,000

Nice work.

417

00:19:22,000 --> 00:19:23,000

Pretty fun.

418

00:19:24,000 --> 00:19:25,000

Fun is right.

419

00:19:25,000 --> 00:19:30,000

Matt threw a medley of mini missiles, but could never match the viral video.

420

00:19:30,000 --> 00:19:38,000

Having the needle pass through the glass, which is left otherwise intact, has proved impossible, even for this perfect picture.

421

00:19:38,000 --> 00:19:41,000

Look, we have no idea what they used in the video.

422

00:19:41,000 --> 00:19:43,000

We don't know if they used real glass.

423

00:19:43,000 --> 00:19:47,000

If that was a real needle, here's what we do know.

424

00:19:47,000 --> 00:19:52,000

We're going to find out what it takes to punch a hole in a sheet of glass without shattering it.

425

00:20:02,000 --> 00:20:06,000

Next up, Adam and Jamie tackle an aquatic two-wheeled tall tail.

426

00:20:06,000 --> 00:20:08,000

So one more randomizer thing?

427

00:20:08,000 --> 00:20:09,000

Yes, indeed.

428

00:20:09,000 --> 00:20:10,000

Spin it.

429

00:20:10,000 --> 00:20:11,000

All right, here we go.

430

00:20:15,000 --> 00:20:21,000

Dear MythBusters, I heard that it is impossible to ride a bicycle underwater.

431

00:20:21,000 --> 00:20:23,000

Why would you need to ride a bicycle underwater?

432

00:20:23,000 --> 00:20:24,000

That totally doesn't matter.

433

00:20:24,000 --> 00:20:29,000

What matters is that it's supposed to be impossible, which means it's absolutely something we should test.

434

00:20:29,000 --> 00:20:31,000

Yeah, but why would you need to do that?

435

00:20:31,000 --> 00:20:34,000

Let's cut to a swimming pool, like right away.

436

00:20:35,000 --> 00:20:37,000

It's a classic classroom conundrum.

437

00:20:37,000 --> 00:20:40,000

A physics problem, Adam, at least, can't resist cracking.

438

00:20:40,000 --> 00:20:46,000

So at your request, they hit the pool and dive in at the deep end of the science.

439

00:20:46,000 --> 00:20:49,000

Now, the myth here is that you can't ride a bike underwater.

440

00:20:49,000 --> 00:20:52,000

And on the face of it, I can see there might be some problems,

441

00:20:52,000 --> 00:20:55,000

mainly surrounding the fact that water is so much more dense than air is.

442

00:20:55,000 --> 00:20:57,000

That was a satisfying thought.

443

00:20:57,000 --> 00:21:00,000

This is going to mean that it's a lot harder to move through it.

444

00:21:00,000 --> 00:21:06,000

And relatively speaking, your weight underwater is a lot less than it is above water.

445

00:21:06,000 --> 00:21:09,000

And so you may have stability or traction problems.

446

00:21:09,000 --> 00:21:11,000

And that's what we're here to find out.

447

00:21:11,000 --> 00:21:14,000

Now, one of the things that makes riding a bicycle above the water possible

448

00:21:14,000 --> 00:21:18,000

is that the forward momentum of the bicycle helps keep you upright.

449

00:21:18,000 --> 00:21:21,000

Now, forward momentum is going to come in quite a premium underwater,

450

00:21:21,000 --> 00:21:25,000

but I don't expect to ever be able to even go this fast.

451

00:21:25,000 --> 00:21:27,000

What is that going to do to my balance?

452

00:21:27,000 --> 00:21:30,000

I'm not exactly sure, but I expect it's going to make things a lot more difficult.

453

00:21:30,000 --> 00:21:35,000

So there are a number of theories and physical factors that mean this myth might be sunk.

454

00:21:35,000 --> 00:21:37,000

But there's only one way to find out.

455

00:21:37,000 --> 00:21:40,000

Adam's going to have the first go at riding a bike underwater.

456

00:21:40,000 --> 00:21:42,000

And he's pretty much just going to get in the water and go for it.

457

00:21:42,000 --> 00:21:43,000

You ready?

458

00:21:43,000 --> 00:21:44,000

Go for it.

459

00:21:44,000 --> 00:21:48,000

Now, to ride a bike underwater, the wheels are going to have to contact the ground.

460

00:21:48,000 --> 00:21:52,000

So if he's floating, that's not riding a bike.

461

00:21:52,000 --> 00:21:53,000

So far, so good.

462

00:21:53,000 --> 00:21:55,000

Yeah, you're propelling yourself, aren't you?

463

00:21:55,000 --> 00:21:58,000

I am propelling myself and the wheels aren't spinning.

464

00:21:58,000 --> 00:22:04,000

It's so far so good, but riding a bike half underwater is only half riding a bike underwater.

465

00:22:04,000 --> 00:22:08,000

To really test this, Adam's got a submerge to find out.

466

00:22:08,000 --> 00:22:10,000

And there he goes.

467

00:22:10,000 --> 00:22:12,000

And there he doesn't.

468

00:22:12,000 --> 00:22:14,000

His front wheel's no longer rolling.

469

00:22:14,000 --> 00:22:16,000

He's wheeling, actually.

470

00:22:16,000 --> 00:22:21,000

For that test, riding a bike half way submerged in the water, a lot easier than I thought it would be.

471

00:22:21,000 --> 00:22:26,000

But once I got fully underwater, it was just as impossible as the myth would suggest.

472

00:22:26,000 --> 00:22:30,000

But we've got a couple of other things to try before we call it just yet.

473

00:22:30,000 --> 00:22:31,000

What do you need?

474

00:22:31,000 --> 00:22:33,000

Well, I think I need more weight.

475

00:22:33,000 --> 00:22:36,000

Adam's theory on his failure is his buoyancy.

476

00:22:36,000 --> 00:22:39,000

To counteract that, he needs more mass.

477

00:22:39,000 --> 00:22:42,000

Enough so that he can keep in contact with the ground.

478

00:22:42,000 --> 00:22:43,000

That's about 50X per pound.

479

00:22:43,000 --> 00:22:47,000

And this time, he's buying more time below the surface with a scuba tank.

480

00:22:47,000 --> 00:22:49,000

Ride the bike underwater.

481

00:22:49,000 --> 00:22:53,000

So can Adam do a lap of the pool on a bicycle underwater?

482

00:22:53,000 --> 00:22:57,000

That's the benchmark the guys have set themselves for a myth-busting result.

483

00:22:57,000 --> 00:23:00,000

Like the last test, he started well.

484

00:23:00,000 --> 00:23:02,000

Going downhill, it all seems to be working.

485

00:23:02,000 --> 00:23:04,000

Moving along like a charm.

486

00:23:04,000 --> 00:23:05,000

But it's deceptive.

487

00:23:05,000 --> 00:23:07,000

Down into the deep, he goes.

488

00:23:07,000 --> 00:23:10,000

But after he turns to come back, his problems become apparent.

489

00:23:10,000 --> 00:23:13,000

A lack of traction means the back wheel freewheels.

490

00:23:13,000 --> 00:23:15,000

And that means Adam's going down.

491

00:23:15,000 --> 00:23:16,000

How'd you do?

492

00:23:16,000 --> 00:23:20,000

So while I was sort of moving myself forward,

493

00:23:20,000 --> 00:23:22,000

it really couldn't be called riding a bike.

494

00:23:22,000 --> 00:23:25,000

It was more like semi-controlled floating.

495

00:23:25,000 --> 00:23:28,000

Second of all, while I was able to go downhill,

496

00:23:28,000 --> 00:23:31,000

there was no way I was able to get back up.

497

00:23:31,000 --> 00:23:36,000

Now, we get to achieve anything that I would call riding a bike underwater.

498

00:23:36,000 --> 00:23:38,000

But Jamie is going to give it a shot.

499

00:23:38,000 --> 00:23:40,000

The water's great.

500

00:23:40,000 --> 00:23:44,000

He's going to put some weight on this bike and try it his old self and see what he can figure out.

501

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

I'm going to follow along in scooping.

502

00:23:46,000 --> 00:23:52,000

So with an additional 25 pounds providing extra downforce, Jamie sets off.

503

00:23:52,000 --> 00:23:56,000

But despite his best efforts, the result is the same as Adam.

504

00:23:56,000 --> 00:24:01,000

The upward force of buoyancy means Jamie's wheels are spinning out.

505

00:24:01,000 --> 00:24:06,000

He can't transfer pedal power into forward motion through contact with the ground,

506

00:24:06,000 --> 00:24:12,000

which leaves the myth finally balanced, unlike an underwater bike riding Heinemann.

507

00:24:12,000 --> 00:24:16,000

Well, the myth is that riding a bicycle underwater is impossible.

508

00:24:16,000 --> 00:24:20,000

And while I think we've pretty cleanly shown that it's not impossible,

509

00:24:20,000 --> 00:24:23,000

I don't think we've yet shown that it's totally possible.

510

00:24:23,000 --> 00:24:27,000

See, I think of a bike riding as something that conveys you across a surface.

511

00:24:27,000 --> 00:24:31,000

And you can ride it uphill and downhill, and it gives you a mechanical advantage.

512

00:24:31,000 --> 00:24:36,000

So far underwater, we've just been able to sort of control our floating.

513

00:24:36,000 --> 00:24:39,000

This is not a vehicle of conveyance underwater.

514

00:24:39,000 --> 00:24:44,000

Yet, I've got a couple of ideas up my sleeve that may make it.

515

00:24:44,000 --> 00:24:47,000

The big problem here is traction.

516

00:24:47,000 --> 00:24:50,000

And to me, that means that we need more weight, a lot more weight.

517

00:24:50,000 --> 00:24:52,000

It might even be a couple hundred pounds.

518

00:24:52,000 --> 00:24:55,000

Let's say we each put our ideas to the test, come back to this pool,

519

00:24:55,000 --> 00:24:57,000

and have a little underwater challenge.

520

00:24:57,000 --> 00:25:00,000

See who can officially ride a bike underwater.

521

00:25:00,000 --> 00:25:01,000

A little race.

522

00:25:01,000 --> 00:25:02,000

A little race.

523

00:25:02,000 --> 00:25:03,000

Works for me.

524

00:25:03,000 --> 00:25:04,000

Let's do it.

525

00:25:05,000 --> 00:25:07,000

Next on Mythbusters, your request.

526

00:25:07,000 --> 00:25:10,000

Alright, so the potty dance. Here's why it might work.

527

00:25:10,000 --> 00:25:12,000

Leads to a bladder busting test.

528

00:25:12,000 --> 00:25:14,000

Why is it foaming?

529

00:25:16,000 --> 00:25:19,000

Do not try what you are about to see at home.

530

00:25:19,000 --> 00:25:21,000

We're what you call experts.

531

00:25:24,000 --> 00:25:26,000

It's the rise of the randomizer.

532

00:25:28,000 --> 00:25:33,000

The Mythbusters are taking a random selection of your madcap mini myth requests

533

00:25:33,000 --> 00:25:35,000

and putting them to the test.

534

00:25:36,000 --> 00:25:38,000

Alright, here we go.

535

00:25:41,000 --> 00:25:45,000

This one comes from the fan site from someone called King of Miri.

536

00:25:45,000 --> 00:25:46,000

This is a good one.

537

00:25:46,000 --> 00:25:49,000

Why is it that when someone has to pee, they shake around?

538

00:25:49,000 --> 00:25:51,000

Doesn't that make the feeling worse?

539

00:25:51,000 --> 00:25:52,000

The potty dance.

540

00:25:52,000 --> 00:25:55,000

Now for those of you that don't know what the potty dance looks like,

541

00:25:55,000 --> 00:25:56,000

carry us about to demonstrate.

542

00:25:56,000 --> 00:25:57,000

I am.

543

00:25:57,000 --> 00:25:58,000

Yep, go for it.

544

00:25:59,000 --> 00:26:00,000

There you have it.

545

00:26:00,000 --> 00:26:01,000

Nice work.

546

00:26:01,000 --> 00:26:03,000

Well that is an interesting idea.

547

00:26:03,000 --> 00:26:06,000

I mean you would think that jumping around would actually slosh around that pee

548

00:26:06,000 --> 00:26:08,000

and create more pressure on your bladder.

549

00:26:08,000 --> 00:26:11,000

Yeah, you know, I would think that it would be better just to sit quietly and relax.

550

00:26:11,000 --> 00:26:13,000

Nah, I think the potty dance works. We should test this.

551

00:26:13,000 --> 00:26:15,000

Let's get our adult diapers on.

552

00:26:15,000 --> 00:26:16,000

Already got mine.

553

00:26:18,000 --> 00:26:21,000

So does the potty dance really help you hold out?

554

00:26:21,000 --> 00:26:24,000

Can you avoid the can by doing the can can?

555

00:26:24,000 --> 00:26:31,000

Will a pee jig, we waltz, or tinkled tango really help or actually hinder?

556

00:26:31,000 --> 00:26:38,000

To find out, the team is ready to cross their legs, shake their booty, and flush their dignity.

557

00:26:39,000 --> 00:26:42,000

First step for the potty dance experiment is the control.

558

00:26:42,000 --> 00:26:44,000

We've all come to work with completely empty bladders.

559

00:26:44,000 --> 00:26:47,000

We're going to consume two liters of water.

560

00:26:47,000 --> 00:26:48,000

Cheers.

561

00:26:48,000 --> 00:26:49,000

The science.

562

00:26:49,000 --> 00:26:50,000

Cheers.

563

00:26:50,000 --> 00:26:52,000

At time how long it takes before we just have to pee?

564

00:26:52,000 --> 00:26:53,000

Okay.

565

00:26:54,000 --> 00:26:55,000

Two liters.

566

00:26:55,000 --> 00:26:56,000

Get ready, bladder.

567

00:26:56,000 --> 00:26:58,000

Here it comes.

568

00:26:58,000 --> 00:27:03,000

So we've set up three clocks to time how long it takes each of us before we just can't hold it any longer.

569

00:27:03,000 --> 00:27:05,000

Thinking about pee.

570

00:27:05,000 --> 00:27:09,000

Now for this control, we won't be employing any special techniques.

571

00:27:09,000 --> 00:27:14,000

Dancing, no meditating, just regular behavior, or at least as regular as it gets for us.

572

00:27:17,000 --> 00:27:21,000

Now once we're ready to open the valves and let it flow, where can I come to this?

573

00:27:21,000 --> 00:27:24,000

The official MythBusters data disposal unit.

574

00:27:24,000 --> 00:27:28,000

Once we're done with the control desk, then we're going to move on to the potty dance.

575

00:27:30,000 --> 00:27:36,000

So for the baseline, the guys simply went about their day and tried to hang on for as long as they could.

576

00:27:38,000 --> 00:27:40,000

I think I might need a five gallon bottle.

577

00:27:40,000 --> 00:27:47,000

And for Tori, that was close to two hours after drinking two liters.

578

00:27:47,000 --> 00:27:56,000

Tori's relief sends Grant over the edge.

579

00:27:56,000 --> 00:27:58,000

Alright, get out the way.

580

00:27:58,000 --> 00:27:59,000

That's so gross.

581

00:27:59,000 --> 00:28:05,000

And 40 minutes later, after Keri not so much spends a penny as a dollar.

582

00:28:05,000 --> 00:28:07,000

Are you done?

583

00:28:07,000 --> 00:28:08,000

Shaking.

584

00:28:08,000 --> 00:28:09,000

Oh my God!

585

00:28:09,000 --> 00:28:12,000

Look at the amount of pee you've got there.

586

00:28:12,000 --> 00:28:13,000

That is a lot!

587

00:28:13,000 --> 00:28:15,000

The control is complete.

588

00:28:15,000 --> 00:28:20,000

So after about two hours and 40 minutes, I had to go, which is 40 minutes more than the boys,

589

00:28:20,000 --> 00:28:23,000

but I peed at least 30% more.

590

00:28:23,000 --> 00:28:25,000

I'm impressed on how you actually peed in the bucket.

591

00:28:25,000 --> 00:28:26,000

Yoga.

592

00:28:26,000 --> 00:28:31,000

So tomorrow we're going to do this again, try with the potty dance, see how long we can hold it

then.

593

00:28:33,000 --> 00:28:34,000

Tell my friends.

594

00:28:34,000 --> 00:28:38,000

And the next day, after following exactly the same procedure as the control,

595

00:28:38,000 --> 00:28:46,000

two liters of water into an empty system, the guys will attempt to stave off the desire to pee with a little potty dancing.

596

00:28:46,000 --> 00:28:48,000

However, Keri is dubious.

597

00:28:48,000 --> 00:28:51,000

Alright, so the potty dance, here's why it might work.

598

00:28:51,000 --> 00:28:54,000

The potty dance is simple and basic.

599

00:28:54,000 --> 00:28:55,000

It's just this one.

600

00:28:55,000 --> 00:28:56,000

Is that it?

601

00:28:56,000 --> 00:28:57,000

Yeah.

602

00:28:57,000 --> 00:28:59,000

When you're dancing, you kind of, it's almost like a meditation.

603

00:28:59,000 --> 00:29:00,000

Oh boy.

604

00:29:00,000 --> 00:29:04,000

It helps us to like kind of bend over.

605

00:29:04,000 --> 00:29:07,000

It distracts you, it's a mind over matter thing.

606

00:29:07,000 --> 00:29:08,000

Ah, God.

607

00:29:08,000 --> 00:29:11,000

Maybe the moon walk.

608

00:29:11,000 --> 00:29:14,000

Mike, make it so you don't have to pee.

609

00:29:14,000 --> 00:29:15,000

Is it helping you?

610

00:29:15,000 --> 00:29:16,000

A little.

611

00:29:16,000 --> 00:29:18,000

I hope I don't pee now.

612

00:29:18,000 --> 00:29:20,000

This would be awkward.

613

00:29:20,000 --> 00:29:21,000

Stepping off.

614

00:29:21,000 --> 00:29:26,000

But at the same time, all that jiggling and bouncing, it's going to put pressure on your bladder.

615

00:29:26,000 --> 00:29:31,000

It might actually force the pee to happen before you're ready.

616

00:29:31,000 --> 00:29:34,000

Anxulatory, that appears to be the case.

617

00:29:34,000 --> 00:29:36,000

This is not helping, it's actually hurting.

618

00:29:37,000 --> 00:29:39,000

Ah, I did them out.

619

00:29:39,000 --> 00:29:41,000

I can't take it anymore.

620

00:29:41,000 --> 00:29:44,000

Apparently the pee pee dance didn't work for me at all.

621

00:29:44,000 --> 00:29:45,000

I can't listen to it.

622

00:29:45,000 --> 00:29:46,000

Oh, oh, oh.

623

00:29:46,000 --> 00:29:50,000

It caused me to go to the bathroom half hour sooner than I did in the control test.

624

00:29:50,000 --> 00:29:53,000

So right now it's not looking good for the mitt.

625

00:29:53,000 --> 00:29:57,000

Oh, I feel so much better.

626

00:29:57,000 --> 00:29:58,000

Woo, nope.

627

00:29:58,000 --> 00:30:04,000

And although Grant grits his teeth, grips his pants and painfully shuffles around for another

628

00:30:04,000 --> 00:30:08,000

20 minutes, he's also short of his control time.

629

00:30:08,000 --> 00:30:09,000

Oh my gosh.

630

00:30:09,000 --> 00:30:10,000

Why is it foaming?

631

00:30:10,000 --> 00:30:11,000

It came out at high velocity.

632

00:30:11,000 --> 00:30:12,000

It wanted to get out.

633

00:30:12,000 --> 00:30:15,000

But Carrie, Carrie has her groove on.

634

00:30:15,000 --> 00:30:21,000

A groove that enables her to shimmy and swing a full seven minutes past her baseline.

635

00:30:21,000 --> 00:30:24,000

This is working for me because if I stop, I will wet my pants.

636

00:30:24,000 --> 00:30:26,000

I might have to dance all the way into the potty.

637

00:30:26,000 --> 00:30:29,000

I'm going to have to dance my pants down and I'm going to have to dance into the potty.

638

00:30:29,000 --> 00:30:31,000

And I'm going to have to dance the pee out because...

639

00:30:31,000 --> 00:30:33,000

All right, that's it for me.

640

00:30:33,000 --> 00:30:36,000

Oh, oh God.

641

00:30:36,000 --> 00:30:37,000

Keep dancing.

642

00:30:37,000 --> 00:30:41,000

So the test climaxes.

643

00:30:41,000 --> 00:30:47,000

In a strange, contradictory result, the boys felt that the moving around made things worse,

644

00:30:47,000 --> 00:30:49,000

which was reflected in their times.

645

00:30:49,000 --> 00:30:53,000

But the movement increased Carrie's ability to hold on.

646

00:30:53,000 --> 00:30:57,000

So with inconclusive results, what's required is a third test,

647

00:30:57,000 --> 00:31:00,000

a contrasting technique to the mythical potty dance.

648

00:31:00,000 --> 00:31:04,000

This time the team is going the full zen.

649

00:31:04,000 --> 00:31:13,000

This time, it's mind over bladder is mental and physical relaxation.

650

00:31:13,000 --> 00:31:17,000

As the time ticks along, the team is taking this seriously.

651

00:31:17,000 --> 00:31:23,000

They zone, bliss and chill out, attempting to banish bladder bursting thoughts

652

00:31:23,000 --> 00:31:26,000

until they can't stand it any longer.

653

00:31:26,000 --> 00:31:28,000

All right, so it's two hours and five minutes.

654

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

I have technically beat my control test.

655

00:31:31,000 --> 00:31:36,000

So technically the zen technique is better, but not by much.

656

00:31:36,000 --> 00:31:39,000

So for Tori, it was a marginal improvement on his control

657

00:31:39,000 --> 00:31:42,000

and significantly better than the potty dance.

658

00:31:42,000 --> 00:31:44,000

Oh God, that feels good.

659

00:31:44,000 --> 00:31:50,000

And 40 minutes later, Carrie maintains her consistency with another similar time.

660

00:31:50,000 --> 00:31:56,000

But Grant serenely sails past his control by a massive 47 minutes,

661

00:31:56,000 --> 00:31:59,000

which leaves a mixed bladder of results.

662

00:31:59,000 --> 00:32:02,000

All right, with the results in, it looks like it's going to be very hard

663

00:32:02,000 --> 00:32:04,000

to come up with some sort of sweeping conclusion.

664

00:32:04,000 --> 00:32:06,000

Everybody's anatomy is so different.

665

00:32:06,000 --> 00:32:11,000

For me, the potty dance and the zen method both helped me prolong having to go to the bathroom.

666

00:32:11,000 --> 00:32:14,000

Tori, nothing helped. He had to go and he had to go quick.

667

00:32:14,000 --> 00:32:17,000

Grant, the zen method really helped him out.

668

00:32:17,000 --> 00:32:21,000

So, guess what it comes down to? Everybody's different.

669

00:32:21,000 --> 00:32:23,000

And that is the moral of the story.

670

00:32:23,000 --> 00:32:26,000

Whatever works, works until it does.

671

00:32:26,000 --> 00:32:28,000

Then you just got to go.

672

00:32:41,000 --> 00:32:45,000

I wanted to take pictures of people's hands because in American culture

673

00:32:45,000 --> 00:32:49,000

there are many idiomatic phrases about hands and I want to talk pro stuff

674

00:32:49,000 --> 00:32:51,000

from a photographic and artistic standpoint.

675

00:32:51,000 --> 00:32:55,000

And these phrases are things like, hand over your heart and hand me downs,

676

00:32:55,000 --> 00:32:59,000

helping hand, hand solo and things of that nature.

677

00:32:59,000 --> 00:33:01,000

You can make up it what you like.

678

00:33:01,000 --> 00:33:04,000

So Jamie, how do you think this one's going to turn out?

679

00:33:04,000 --> 00:33:06,000

I don't know, I'm speechless.

680

00:33:13,000 --> 00:33:15,000

It's a randomizer request fest.

681

00:33:15,000 --> 00:33:21,000

Do the laws of physics really make a sub-aquatic spin on a bicycle unattainable,

682

00:33:21,000 --> 00:33:23,000

unachievable and unfeasible?

683

00:33:23,000 --> 00:33:27,000

Adam and Jamie are blowing some bubbles to find out.

684

00:33:27,000 --> 00:33:29,000

He's moving along like a charm.

685

00:33:29,000 --> 00:33:33,000

It seemed to be going pretty well until we attempted to ride back out of the deep end here

686

00:33:33,000 --> 00:33:35,000

at which point the bicycle stopped behaving like a bicycle

687

00:33:35,000 --> 00:33:38,000

and started behaving like a heavy weight.

688

00:33:38,000 --> 00:33:41,000

There he goes and he's falling off at this time.

689

00:33:41,000 --> 00:33:44,000

So, undaunted, we have each made assumptions about exactly what it would take

690

00:33:44,000 --> 00:33:48,000

to make a bicycle drive underwater and attempt to make the impossible possible.

691

00:33:48,000 --> 00:33:51,000

Yep, back at the shop Adam and Jamie went head to head

692

00:33:51,000 --> 00:33:54,000

and embarked on a top secret bike build off.

693

00:33:54,000 --> 00:33:56,000

Don't tell Jamie.

694

00:33:56,000 --> 00:33:59,000

In order to get more traction, I'm going to make my bike really heavy,

695

00:33:59,000 --> 00:34:01,000

but I've also filled the tires with corn syrup.

696

00:34:01,000 --> 00:34:03,000

I have no idea if this is going to work.

697

00:34:03,000 --> 00:34:04,000

But it's funny.

698

00:34:04,000 --> 00:34:09,000

Funny and a solid scientific theory, the syrupy filling will spread the tires,

699

00:34:09,000 --> 00:34:13,000

providing more surface contact and more traction.

700

00:34:13,000 --> 00:34:16,000

He also added 50 extra pounds of weight.

701

00:34:16,000 --> 00:34:17,000

I think it's perfect.

702

00:34:17,000 --> 00:34:18,000

But Jamie...

703

00:34:18,000 --> 00:34:19,000

A couple of lead training wheels.

704

00:34:19,000 --> 00:34:21,000

Look at a more heavy-handed approach.

705

00:34:21,000 --> 00:34:25,000

I've added 120 pounds of training wheels to the back of this bike

706

00:34:25,000 --> 00:34:27,000

and another 20 or so on the front.

707

00:34:27,000 --> 00:34:29,000

I think it's going to give me all the traction I need.

708

00:34:29,000 --> 00:34:30,000

I'm ready.

709

00:34:30,000 --> 00:34:35,000

So they each have a mechanical solution they believe will give this myth its best shot.

710

00:34:35,000 --> 00:34:38,000

Jamie focused on weight and stability.

711

00:34:38,000 --> 00:34:40,000

Adam went for traction.

712

00:34:40,000 --> 00:34:44,000

To see if either worked, they introduce a little competitive adrenaline.

713

00:34:44,000 --> 00:34:47,000

The race starts here at the top of the ramp.

714

00:34:47,000 --> 00:34:50,000

As soon as I start the timer going, Jamie's dive straight into the water.

715

00:34:50,000 --> 00:34:54,000

I'm going to go down there and tell him I'm going to go down there.

716

00:34:54,000 --> 00:34:58,000

I'm going to go down there and tell him I'm going to go down there.

717

00:34:58,000 --> 00:35:04,000

The moment he crosses the finish line, I wave the checkered flag and tell him it's time.

718

00:35:04,000 --> 00:35:05,000

Are you ready?

719

00:35:05,000 --> 00:35:06,000

Ready as I'll ever be.

720

00:35:06,000 --> 00:35:08,000

Then it'll be my turn.

721

00:35:08,000 --> 00:35:11,000

So they're all set for the tour de pool.

722

00:35:11,000 --> 00:35:12,000

Go.

723

00:35:12,000 --> 00:35:14,000

A uniquely myth busterish event.

724

00:35:17,000 --> 00:35:19,000

Most peculiar start to any race ever.

725

00:35:19,000 --> 00:35:23,000

I like watching the top of his bald head disappear into the water.

726

00:35:23,000 --> 00:35:24,000

Alright, let's go follow him.

727

00:35:24,000 --> 00:35:26,000

Everything seems to be going smoothly.

728

00:35:26,000 --> 00:35:28,000

Now he's coasting downhill.

729

00:35:28,000 --> 00:35:32,000

165 pounds of bike, 180 pounds of Heinemann.

730

00:35:32,000 --> 00:35:34,000

He's rounding the code.

731

00:35:34,000 --> 00:35:38,000

This is where we ran into trouble last time we were in this pool.

732

00:35:38,000 --> 00:35:43,000

Going back up, the whole design of his bike is about getting him back up to help, giving him enough traction.

733

00:35:43,000 --> 00:35:48,000

But all of the extra mass doesn't seem to be aiding Jamie's cause.

734

00:35:48,000 --> 00:35:53,000

In fact, it seems to be more of a 160 pound hindrance than help.

735

00:35:53,000 --> 00:35:57,000

It may just be too much weight for him to get up that slow.

736

00:35:57,000 --> 00:36:03,000

Jamie was hoping the down force from the additional weight would help maintain contact with the ground.

737

00:36:03,000 --> 00:36:07,000

It's a marginal improvement, but not enough to escape the deep end.

738

00:36:07,000 --> 00:36:10,000

And in the end, he has to use his feet to get to the top.

739

00:36:10,000 --> 00:36:12,000

A little Heinemann that could.

740

00:36:12,000 --> 00:36:14,000

Itch by itch.

741

00:36:14,000 --> 00:36:16,000

Making it out of the deep end.

742

00:36:16,000 --> 00:36:17,000

All on his own.

743

00:36:17,000 --> 00:36:22,000

And in a burst of slow, Jamie finishes and delivers his verdict.

744

00:36:22,000 --> 00:36:23,000

That was absurd.

745

00:36:23,000 --> 00:36:26,000

This was far worse than the unmodified bike.

746

00:36:26,000 --> 00:36:29,000

You know, more weight is harder to pull up hill.

747

00:36:29,000 --> 00:36:31,000

It still didn't have perfect traction.

748

00:36:31,000 --> 00:36:36,000

Well, since I tried that approach, I tried adding less weight and changing tires consistency to try and exploit that.

749

00:36:36,000 --> 00:36:38,000

Let's say I have a run and we'll see what we get.

750

00:36:38,000 --> 00:36:45,000

So in conclusion, more mass counteracts the buoyancy, but the drag is a drag.

751

00:36:45,000 --> 00:36:47,000

One, go.

752

00:36:47,000 --> 00:36:50,000

Question is, can Adam complete his lap?

753

00:36:50,000 --> 00:36:52,000

There he goes so far so good.

754

00:36:52,000 --> 00:36:56,000

Well, I can tell already he looks like he's doing a lot better than I was.

755

00:36:56,000 --> 00:36:59,000

And here comes the hard part.

756

00:36:59,000 --> 00:37:01,000

King of the mountain, he's not.

757

00:37:01,000 --> 00:37:03,000

And he's having the same problems.

758

00:37:03,000 --> 00:37:07,000

Maybe if he could hear Jamie's encouragement, he might do better.

759

00:37:07,000 --> 00:37:09,000

Oh, there he goes.

760

00:37:09,000 --> 00:37:13,000

Boy, that makes me feel a lot better.

761

00:37:13,000 --> 00:37:15,000

Maybe not.

762

00:37:15,000 --> 00:37:21,000

The good news is, the mods I made on this bike are a radical improvement over the unmodified bike.

763

00:37:21,000 --> 00:37:25,000

The soft tires and more weight made this bike have much better traction.

764

00:37:25,000 --> 00:37:33,000

However, I was not able, even with those improvements, to get out of the deep end under any circumstances.

765

00:37:33,000 --> 00:37:37,000

At this point, it's pretty much an even race.

766

00:37:37,000 --> 00:37:39,000

In other words, we've both failed.

767

00:37:39,000 --> 00:37:43,000

And I think you'll have to agree, I gave it every shot I had.

768

00:37:45,000 --> 00:37:47,000

So how did we do in our obstacle course?

769

00:37:47,000 --> 00:37:48,000

We sucked.

770

00:37:48,000 --> 00:37:50,000

Well, we didn't suck.

771

00:37:50,000 --> 00:37:51,000

We gave it a good try.

772

00:37:51,000 --> 00:37:55,000

The idea of riding a bicycle uphill underwater, that's what I think sucks.

773

00:37:55,000 --> 00:37:59,000

Yeah, I thought we could have done a lot better, but we just couldn't do it.

774

00:37:59,000 --> 00:38:00,000

We couldn't go uphill.

775

00:38:00,000 --> 00:38:04,000

No, but the good news is, we have this idiomatic phrase that we can now answer,

776

00:38:04,000 --> 00:38:07,000

is riding a bicycle underwater impossible?

777

00:38:07,000 --> 00:38:08,000

No, it's not.

778

00:38:08,000 --> 00:38:14,000

No, I think on a flat with a very shallow grade, it's totally feasible and both of us were able to do it.

779

00:38:14,000 --> 00:38:16,000

And that means the myth is busted.

780

00:38:16,000 --> 00:38:20,000

Totally busted, but so is our ability to ride uphill underwater.

781

00:38:20,000 --> 00:38:22,000

And we ruined a couple of perfectly good bikes.

782

00:38:22,000 --> 00:38:25,000

It's all in the name of science. Let's get out of here.

783

00:38:51,000 --> 00:38:54,000

I think we got some unfinished business with this whole needle throwing myth.

784

00:38:54,000 --> 00:38:55,000

What do you mean?

785

00:38:55,000 --> 00:39:01,000

I say we take a pellet gun, modify it, and see how fast we can get that needle going, and then see what happens.

786

00:39:01,000 --> 00:39:02,000

I love it. Let's do it.

787

00:39:02,000 --> 00:39:10,000

We're trying to replicate what we saw on the internet, a Shaolin monk throwing a needle through a pane of glass with a clean hole.

788

00:39:10,000 --> 00:39:12,000

We started out with this manpower.

789

00:39:12,000 --> 00:39:13,000

It didn't work.

790

00:39:13,000 --> 00:39:18,000

Then we moved it to Superman power and used Matt Cain, who has the fastest arm in the west.

791

00:39:18,000 --> 00:39:23,000

So now we're going to try something with even more power, an air rifle.

792

00:39:23,000 --> 00:39:25,000

Yep, an air rifle.

793

00:39:25,000 --> 00:39:30,000

As his chaos maker of choice, it's got Tori written all over it.

794

00:39:30,000 --> 00:39:34,000

Now, I've shot out a lot of windows with these, but I've never shot one out with a needle.

795

00:39:34,000 --> 00:39:37,000

I never thought of this before, but there is a problem.

796

00:39:37,000 --> 00:39:38,000

The needle is very thin.

797

00:39:38,000 --> 00:39:41,000

It's not the same diameter as the barrel of the gun.

798

00:39:41,000 --> 00:39:47,000

So I'm going to have to use this saboteur to capture the air pressure to shoot the needle down towards the glass.

799

00:39:47,000 --> 00:39:56,000

With the rifle capable of shooting at 180 miles an hour, the 1 eighth inch glass and the myth is facing its final firing squad.

800

00:39:56,000 --> 00:40:01,000

This is eighth inch glass with the needle and air rifle. Here we go in three, two, one.

801

00:40:03,000 --> 00:40:06,000

Let's see what that did. That looks like a nice hit.

802

00:40:06,000 --> 00:40:07,000

Wow.

803

00:40:07,000 --> 00:40:09,000

Wow, but no cigar.

804

00:40:09,000 --> 00:40:13,000

A good point first contact and no penetration.

805

00:40:13,000 --> 00:40:20,000

But with a speed of 140 miles an hour, the team still has a chance to further pump up their chances,

806

00:40:20,000 --> 00:40:24,000

because with an extra pump or two comes more power.

807

00:40:26,000 --> 00:40:27,000

Got a divot?

808

00:40:27,000 --> 00:40:33,000

This time the needle rockets out at 160 miles an hour, but again, no penetration.

809

00:40:33,000 --> 00:40:36,000

However, the divot damage is promising.

810

00:40:36,000 --> 00:40:43,000

So for the final time, Tori cranks the gun to the max, 180 miles an hour.

811

00:40:43,000 --> 00:40:44,000

One.

812

00:40:48,000 --> 00:40:49,000

That looked good.

813

00:40:49,000 --> 00:40:53,000

It punched a perfect hole just like the shell it mugged in.

814

00:40:53,000 --> 00:40:56,000

Dude, so that's what it takes. Incredible speed.

815

00:40:56,000 --> 00:41:04,000

Incredible speed indeed. A full 70 miles an hour faster than Matt Beck-Cannon-Cain's best throw was the magic number.

816

00:41:04,000 --> 00:41:09,000

And with the physics lay bare, the team suspects an alternative technique was used.

817

00:41:09,000 --> 00:41:15,000

It's not a hoax, but it seems there's more than meets the eye to this mythical monk magic.

818

00:41:16,000 --> 00:41:21,000

I'm going to say this is busted still, because I just don't think that any human is going to be able to do that.

819

00:41:21,000 --> 00:41:22,000

Totally busted.

820

00:41:22,000 --> 00:41:24,000

Absolutely busted.

821

00:41:24,000 --> 00:41:28,000

Now the myth that you could throw a needle through a pane of glass is totally busted.

822

00:41:28,000 --> 00:41:30,000

We tried everything we could to get this to happen.

823

00:41:30,000 --> 00:41:31,000

We threw it ourselves.

824

00:41:31,000 --> 00:41:33,000

We even brought in a professional pitcher.

825

00:41:33,000 --> 00:41:39,000

And we changed the thickness of the glass and we could still not get a perfect punched hole.

826

00:41:39,000 --> 00:41:43,000

Finally, after using an air rifle, we're able to punch a perfect hole.

827

00:41:43,000 --> 00:41:47,000

But remember, that's getting a needle to travel at almost 200 miles an hour.

828

00:41:47,000 --> 00:41:50,000

No matter how you look at this one, it is busted.

829

00:41:50,000 --> 00:41:53,000

Let's just hope the shell and mugs don't have cable.

