

1

00:00:00,000 --> 00:00:16,400

On this way to drunk to drive episode, Adam and Jamie get slushed for science.

2

00:00:16,400 --> 00:00:19,360

Now I usually don't let people do that.

3

00:00:19,360 --> 00:00:24,680

What is the best way to get sober in a hurry?

4

00:00:24,680 --> 00:00:28,600

And is the myth of beer goggles, fact or fantasy?

5

00:00:28,600 --> 00:00:30,320

Pretty darn cute.

6

00:00:30,320 --> 00:00:35,400

Then Carrie Grant and Tori rebuild an ancient weapon of mass destruction.

7

00:00:35,400 --> 00:00:37,960

Watch out!

8

00:00:37,960 --> 00:00:45,960

They start with one fire arrow, then try launching 200 to see if the watcha lives up to its legend.

9

00:00:45,960 --> 00:00:54,040

Who are the myth busters?

10

00:00:54,040 --> 00:00:58,120

Adam Savage.

11

00:00:58,120 --> 00:00:59,120

And Jamie Heineman.

12

00:00:59,120 --> 00:01:01,120

Feel like I'm ready to go out clubbing.

13

00:01:01,120 --> 00:01:05,720

Between them more than 30 years of special effects experience.

14

00:01:05,720 --> 00:01:09,960

Joining them, Grant Imahara.

15

00:01:09,960 --> 00:01:11,440

Tori Belleggi.

16

00:01:11,440 --> 00:01:13,120

Put your back into it.

17

00:01:13,120 --> 00:01:14,120

And Carrie Byron.

18

00:01:14,120 --> 00:01:17,000

My explosives and electricity.

19

00:01:17,000 --> 00:01:20,120

They don't just tell the myths.

20

00:01:20,120 --> 00:01:31,880

They put them to the test.

21

00:01:31,880 --> 00:01:35,520

Let's wet our whistles with the myth of beer goggles.

22

00:01:35,520 --> 00:01:39,480

I'm feeling a little left out here.

23

00:01:39,480 --> 00:01:40,480

And I'm glad.

24

00:01:40,480 --> 00:01:41,840

What's going on?

25

00:01:41,840 --> 00:01:42,840

Beer goggles.

26

00:01:42,840 --> 00:01:43,840

Beer goggles.

27

00:01:43,840 --> 00:01:44,840

Beer goggles.

28

00:01:44,840 --> 00:01:47,440

It's been out there waiting for us the whole time and for some reason we haven't tested

29

00:01:47,440 --> 00:01:48,440

it.

30

00:01:48,440 --> 00:01:53,200

But alcohol has this magical property that will make people around you more attractive

31

00:01:53,200 --> 00:01:54,200

the more you drink.

32

00:01:54,200 --> 00:01:56,360

Actually, I feel like I've been testing this for over a decade.

33

00:01:56,360 --> 00:01:58,160

Yes, but that's anecdotally.

34

00:01:58,160 --> 00:02:00,200

We are going to test it scientifically.

35

00:02:00,200 --> 00:02:01,200

Great.

36

00:02:01,200 --> 00:02:05,400

More drinking on the job.

37

00:02:05,400 --> 00:02:09,000

Jamie knows that eventually this will turn ugly.

38

00:02:09,000 --> 00:02:13,920

They'll have to lose their inhibitions and maybe their lunch to test the truth of beer

39

00:02:13,920 --> 00:02:14,920

goggles.

40

00:02:14,920 --> 00:02:17,280

This seems to be a really subjective thing.

41

00:02:17,280 --> 00:02:19,560

We need to be objective if we're going to be scientific.

42

00:02:19,560 --> 00:02:20,920

How are we going to do that?

43

00:02:20,920 --> 00:02:21,920

Large sample size?

44

00:02:21,920 --> 00:02:22,920

That's exactly what I'm thinking.

45

00:02:22,920 --> 00:02:24,920

And I'm thinking that we rate photos.

46

00:02:24,920 --> 00:02:29,000

Specifically, we get a bunch of photos, us of women, you of men.

47

00:02:29,000 --> 00:02:34,200

We review a whole bunch and rate them when we're sober and then we get drunk and re-rate

48

00:02:34,200 --> 00:02:35,440

those photos.

49

00:02:35,440 --> 00:02:36,920

And see if there's a difference.

50

00:02:36,920 --> 00:02:39,640

Exactly.

51

00:02:39,640 --> 00:02:44,680

But before we raise our glasses, let's meet the newest member of the team with a vital

52

00:02:44,680 --> 00:02:46,160

role to play.

53

00:02:46,160 --> 00:02:47,920

This is our new smart board.

54

00:02:47,920 --> 00:02:52,120

Not only is it a really big, beautiful interface, but it's also interactive.

55

00:02:52,120 --> 00:02:53,680

Let me show you a couple of tricks.

56

00:02:53,680 --> 00:02:54,680

Watch this.

57

00:02:54,680 --> 00:02:55,680

How about that?

58

00:02:55,680 --> 00:02:56,680

Huh?

59

00:02:56,680 --> 00:02:57,680

Huh?

60

00:02:57,680 --> 00:02:58,680

You like that?

61

00:02:58,680 --> 00:02:59,680

It gets better.

62

00:02:59,680 --> 00:03:00,680

Check it out.

63

00:03:00,680 --> 00:03:09,280

Not only can I even do that, I can also diagram what's going to happen in real time.

64

00:03:09,280 --> 00:03:12,600

Now, I'm not going to go too much farther showing you the tricks this thing can do because

65

00:03:12,600 --> 00:03:16,840

we're about to use it a whole bunch in this very episode.

66

00:03:16,840 --> 00:03:23,320

The board's first job is to help Adam, still sober, rate the looks of 30 women from 1 to

67

00:03:23,320 --> 00:03:24,320

10.

68

00:03:24,320 --> 00:03:26,120

There we go.

69

00:03:26,120 --> 00:03:29,480

He's got just five seconds to score each photo.

70

00:03:29,480 --> 00:03:32,400

He can see the time ticked down on the left of the screen.

71

00:03:32,400 --> 00:03:35,880

I got to say the exercise of giving a quick rating.

72

00:03:35,880 --> 00:03:36,880

It doesn't feel great.

73

00:03:36,880 --> 00:03:41,840

It's kind of an awful thing to have to do.

74

00:03:41,840 --> 00:03:48,960

Like I find myself resisting giving a one or a two, but yeah, but I got a 96.

75

00:03:48,960 --> 00:03:54,320

So the total possible score is potentially 300.

76

00:03:54,320 --> 00:03:57,400

Out of that, I gave a 96.

77

00:03:57,400 --> 00:04:03,160

The question from here on in will be, as I drink, will my overall score go up?

78

00:04:03,160 --> 00:04:06,480

Now it's Carrie's turn to rate the chaps.

79

00:04:06,480 --> 00:04:10,680

I'm wondering if I'm actually going to be nicer because I'm sober or if I'm just going

80

00:04:10,680 --> 00:04:12,800

to get really cut throat.

81

00:04:12,800 --> 00:04:14,480

All right.

82

00:04:14,480 --> 00:04:16,480

Carrie, sober.

83

00:04:16,480 --> 00:04:17,480

Start.

84

00:04:17,480 --> 00:04:23,720

Five seconds is really quick to come up with a number to rate someone.

85

00:04:23,720 --> 00:04:28,880

I mean, usually you give them a little bit more time if you're in a bar or something.

86

00:04:28,880 --> 00:04:32,040

And quite honestly, there are no super models on here.

87

00:04:32,040 --> 00:04:39,960

Oh, God, do I rate you on your hair?

88

00:04:39,960 --> 00:04:44,160

Carrie's either much more generous or less discriminating than Adam.

89

00:04:44,160 --> 00:04:45,160

Okay.

90

00:04:45,160 --> 00:04:48,280

Total score, 154.

91

00:04:48,280 --> 00:04:50,680

But she does know what pushes her buttons.

92

00:04:50,680 --> 00:04:54,200

I noticed I was rating higher on men that looked confident.

93

00:04:54,200 --> 00:04:58,520

If they looked sort of squirrely and really apprehensive about the whole thing, I definitely

94

00:04:58,520 --> 00:05:00,760

gave him a lower score.

95

00:05:00,760 --> 00:05:03,440

Now for a man who's anything but squirrely.

96

00:05:03,440 --> 00:05:04,440

Your turn.

97

00:05:04,440 --> 00:05:05,440

Okay.

98

00:05:05,440 --> 00:05:12,800

I'm about to look at a bunch of pictures of women, apparently, and try to objectify them.

99

00:05:12,800 --> 00:05:13,800

Jamie's got a point.

100

00:05:13,800 --> 00:05:18,440

Snap decisions based on looks alone are shallow and shameful.

101

00:05:18,440 --> 00:05:21,680

But hey, it's all in the name of social science.

102

00:05:21,680 --> 00:05:24,160

It's set up so that it's sort of a gut reaction.

103

00:05:24,160 --> 00:05:30,320

I don't know how consistent it's going to be, but that's where the averaging becomes important

104

00:05:30,320 --> 00:05:34,840

because you've got some kind of a number that should show a trend.

105

00:05:34,840 --> 00:05:40,000

Jamie's trendy number higher than Adam's, but lower than Carrie's.

106

00:05:40,000 --> 00:05:44,320

So I got a 116.

107

00:05:44,320 --> 00:05:45,320

Whatever that means.

108

00:05:45,320 --> 00:05:48,960

Well, it means nothing till they've done this twice more.

109

00:05:48,960 --> 00:05:53,640

First slightly inebriated and then stumbling, dribbling drunk.

110

00:05:53,640 --> 00:05:54,640

Hello, Ginger.

111

00:05:54,640 --> 00:05:55,640

Hey, Adam.

112

00:05:55,640 --> 00:05:56,640

How are you doing?

113

00:05:56,640 --> 00:05:57,640

Good.

114

00:05:57,640 --> 00:05:59,640

How about three beers?

115

00:05:59,640 --> 00:06:01,140

Coming up.

116

00:06:01,140 --> 00:06:05,020

Don't even ask how Adam knows the bar staff by name.

117

00:06:05,020 --> 00:06:08,860

Let's just say he won't need directions to the restroom.

118

00:06:08,860 --> 00:06:09,860

Let the test begin.

119

00:06:09,860 --> 00:06:10,860

To science.

120

00:06:10,860 --> 00:06:11,860

To science.

121

00:06:11,860 --> 00:06:12,860

To science.

122

00:06:12,860 --> 00:06:15,540

The aim here is to get buzzed.

123

00:06:15,540 --> 00:06:18,680

For the boys, that means two or three quick brusquets.

124

00:06:18,680 --> 00:06:21,500

For Carrie, maybe one less.

125

00:06:21,500 --> 00:06:23,980

What's red and smells like blue paint?

126

00:06:23,980 --> 00:06:24,980

What?

127

00:06:24,980 --> 00:06:25,980

Red paint.

128

00:06:25,980 --> 00:06:35,620

Ginger keeps the sides coming.

129

00:06:35,620 --> 00:06:38,940

And they're ready to test if they're officially buzzed.

130

00:06:38,940 --> 00:06:40,940

Let's do a breathalyzer.

131

00:06:40,940 --> 00:06:42,940

Let's get some science going.

132

00:06:42,940 --> 00:06:46,220

It sounds like fun.

133

00:06:46,220 --> 00:06:48,340

Point 06.

134

00:06:48,340 --> 00:06:52,420

Over to Carrie, who proved she's too drunk to drive.

135

00:06:52,420 --> 00:06:54,060

Point 08.

136

00:06:54,060 --> 00:06:56,420

He's at the legal limit.

137

00:06:56,420 --> 00:07:00,220

Then Jamie blows the same number as Adam.

138

00:07:00,220 --> 00:07:02,300

Point 06.

139

00:07:02,300 --> 00:07:08,300

But will their slightly pickled perceptions affect the way they judge the opposite sex?

140

00:07:08,300 --> 00:07:10,540

How am I going to do when I'm buzzed?

141

00:07:10,540 --> 00:07:13,660

I don't think it'll be a whole lot different than sober.

142

00:07:13,660 --> 00:07:15,100

Adam's not so sure.

143

00:07:15,100 --> 00:07:17,140

And he's the first to try it.

144

00:07:17,140 --> 00:07:19,540

I'm going to point 06.

145

00:07:19,540 --> 00:07:20,540

You guys, don't cheat.

146

00:07:20,540 --> 00:07:21,540

Don't look over here.

147

00:07:21,540 --> 00:07:22,540

You got it?

148

00:07:22,540 --> 00:07:23,540

No problem.

149

00:07:23,540 --> 00:07:25,020

Adam, buzzed.

150

00:07:25,020 --> 00:07:27,940

Here we go.

151

00:07:27,940 --> 00:07:33,620

This time around, they've got 30 new faces judged by others to be exactly as attractive

152

00:07:33,620 --> 00:07:35,740

as the first batch.

153

00:07:35,740 --> 00:07:40,140

I can already feel my ratings being higher.

154

00:07:40,140 --> 00:07:44,420

I found it much easier to rate them buzzed than sober.

155

00:07:44,420 --> 00:07:47,460

I started to feel bad for the ones and twos.

156

00:07:47,460 --> 00:07:50,500

While sober, buzzed, didn't care at all.

157

00:07:50,500 --> 00:07:52,380

1, 1, 2, you're out.

158

00:07:52,380 --> 00:07:55,580

Harsh words, but his tally supports the myth.

159

00:07:55,580 --> 00:07:59,540

He is finding these faces more attractive.

160

00:07:59,540 --> 00:08:04,100

My buzz score overall is 1, 21.

161

00:08:04,100 --> 00:08:06,980

That's 25 more than his sober test.

162

00:08:06,980 --> 00:08:11,620

So on average, each girl rates almost a full point extra.

163

00:08:11,620 --> 00:08:16,180

Now for Karen, who was far kinder than the boys' first time round.

164

00:08:16,180 --> 00:08:20,420

I think I'd get a little giddy after a few drinks, so I think I might be pretty generous

165

00:08:20,420 --> 00:08:21,900

after I've had a beer or two.

166

00:08:22,100 --> 00:08:24,100

Or three.

167

00:08:24,100 --> 00:08:29,940

Carrie also has 30 new faces to rate, again, all average Joes.

168

00:08:29,940 --> 00:08:33,420

That is some fabulous hair.

169

00:08:33,420 --> 00:08:37,220

But the beer goggle effect seems to be working in reverse.

170

00:08:37,220 --> 00:08:39,780

Is this an uglier group of people?

171

00:08:39,780 --> 00:08:43,980

I wouldn't give most of those guys change if I passed them on the street.

172

00:08:43,980 --> 00:08:49,460

Just two hours ago, sober, Carrie rated a similar group at 154.

173

00:08:49,460 --> 00:08:51,420

Now that she's loosened up.

174

00:08:51,420 --> 00:08:54,220

My buzz score was 89.

175

00:08:54,220 --> 00:08:56,020

I might be a mean drunk.

176

00:08:56,020 --> 00:08:59,900

I'm not sure if I was charity rating before, because I felt kind of bad for some of the

177

00:08:59,900 --> 00:09:05,140

uglier people, but there was absolutely no talent in this group.

178

00:09:05,140 --> 00:09:06,140

None.

179

00:09:07,420 --> 00:09:10,420

So Jamie steps up to rate the new babes.

180

00:09:10,420 --> 00:09:13,660

And remember, he predicted no change whatsoever.

181

00:09:13,660 --> 00:09:15,660

Here we go.

182

00:09:15,660 --> 00:09:17,660

Jamie buzzed.

183

00:09:17,660 --> 00:09:25,980

My perceptions of what made them attractive or not attractive are pretty much the same

184

00:09:25,980 --> 00:09:27,900

as they were the last time, as far as I know.

185

00:09:27,900 --> 00:09:34,420

I mean, nice complexion, regular features, signs of health, things like that.

186

00:09:34,420 --> 00:09:38,540

But after three beers, Jamie's brain is lightly sauteed.

187

00:09:38,540 --> 00:09:41,020

It all comes down to one number.

188

00:09:41,020 --> 00:09:43,500

Okay, I'm done.

189

00:09:43,500 --> 00:09:46,980

My buzzed score was 105.

190

00:09:46,980 --> 00:09:49,860

The sober score was 116.

191

00:09:49,860 --> 00:09:53,260

But we're yet to test anyone cross-eyed drunk.

192

00:09:53,260 --> 00:09:57,580

And when we do, the figures, I promise, will surprise you.

193

00:09:57,580 --> 00:09:59,580

I feel like I've met her.

194

00:10:08,220 --> 00:10:11,260

All right, you guys, this next myth is going to be insane.

195

00:10:11,260 --> 00:10:12,260

What is it?

196

00:10:12,260 --> 00:10:13,260

That's it.

197

00:10:13,260 --> 00:10:14,260

The Hwacha.

198

00:10:14,260 --> 00:10:15,260

It's an ancient Korean weapon.

199

00:10:15,260 --> 00:10:16,260

Oh.

200

00:10:16,260 --> 00:10:17,580

It's a picture of it that means it's not a myth.

201

00:10:17,580 --> 00:10:18,580

It exists.

202

00:10:18,580 --> 00:10:19,580

Well, we know it exists.

203

00:10:19,580 --> 00:10:21,220

What we're going to test is the legend of the Hwacha.

204

00:10:21,220 --> 00:10:23,460

Whether or not it could do what they said it could do.

205

00:10:23,460 --> 00:10:28,380

Apparently, they could fire 200 arrows all at once, going 500 yards, and all of the arrows

206

00:10:28,380 --> 00:10:29,620

explode on impact.

207

00:10:29,620 --> 00:10:33,820

Okay, well, to begin with, any weapon in that era wouldn't have had the benefit of modern

208

00:10:33,820 --> 00:10:35,300

explosives or propellants.

209

00:10:35,300 --> 00:10:38,300

It was likely based entirely on black powder.

210

00:10:38,300 --> 00:10:41,740

So first, we need to find out if black powder can actually propel one of those arrows 500

211

00:10:41,740 --> 00:10:42,740

yards.

212

00:10:42,740 --> 00:10:43,740

Right.

213

00:10:43,740 --> 00:10:45,900

And then we need to see if we can get these rockets to explode on impact.

214

00:10:45,900 --> 00:10:50,740

And finally, we need to see if we can launch 200 arrows simultaneously without them all

215

00:10:50,740 --> 00:10:54,380

crashing into each other or exploding on the stand.

216

00:10:54,380 --> 00:10:58,540

It's a massive myth to unravel with three key parts.

217

00:10:58,540 --> 00:11:02,980

One, can a fire arrow actually travel 500 yards?

218

00:11:02,980 --> 00:11:06,660

Two, can it be rigged to explode on impact?

219

00:11:06,660 --> 00:11:11,940

And three, can you really set off 200 at once?

220

00:11:11,940 --> 00:11:13,820

So let's start up at the pointy end.

221

00:11:14,220 --> 00:11:17,700

What I'm going to do right now is I'm going to build one of these arrows from the materials

222

00:11:17,700 --> 00:11:20,220

that the ancient Koreans would have used.

223

00:11:20,220 --> 00:11:22,220

I have some bamboo.

224

00:11:22,220 --> 00:11:24,380

I have some feathers for my fletching.

225

00:11:24,380 --> 00:11:29,740

And finally, a piece of steel to make my arrow heads out of.

226

00:11:29,740 --> 00:11:36,660

Tori proves himself a first-class Fletcher and a pretty fair blacksmith.

227

00:11:36,660 --> 00:11:40,580

All right, so my arrow is done.

228

00:11:40,580 --> 00:11:42,580

Now it's time to see how it flies.

229

00:11:43,420 --> 00:11:45,420

What a fly!

230

00:11:47,020 --> 00:11:49,020

Pretty dang good.

231

00:11:49,020 --> 00:11:52,020

That's one down, 199 to go.

232

00:11:53,780 --> 00:11:59,940

Tori leaves the hard work to carry as he and Grant skip town to visit Zambelli fireworks

233

00:11:59,940 --> 00:12:00,940

in Pennsylvania.

234

00:12:00,940 --> 00:12:03,300

We're lost, aren't we?

235

00:12:03,300 --> 00:12:08,500

The rationale behind the road trip is that the fire arrows work just like sky rockets.

236

00:12:09,420 --> 00:12:11,420

Happen to have some fun while we're here?

237

00:12:11,420 --> 00:12:13,420

That's purely quits it in.

238

00:12:15,420 --> 00:12:20,420

Just like fireworks, the Wacha rockets were charged with black powder.

239

00:12:20,420 --> 00:12:25,940

Hours have to travel 500 yards strapped to a 4 1 half foot hour.

240

00:12:25,940 --> 00:12:31,260

Grant and Tori are determined to roll their own and Bill is here to help them.

241

00:12:31,260 --> 00:12:33,260

Let's see, what's one of these weigh?

242

00:12:33,260 --> 00:12:36,380

About four ounces.

243

00:12:36,380 --> 00:12:38,300

That's not bad.

244

00:12:38,300 --> 00:12:43,060

The 12 ounces, the shell weighs, we had one ounce to lift it up in the air.

245

00:12:43,060 --> 00:12:50,060

If you guys want to go 500 yards, that's a long way, so we'll see how a two ounce rocket works.

246

00:12:50,060 --> 00:12:56,060

Using six inch cardboard tubes, Bill shows how to pack a charge without blowing up the bunker.

247

00:12:56,060 --> 00:13:02,060

So you do a little bit at a time and you press that in and you just give it a couple hits.

248

00:13:02,060 --> 00:13:04,060

It feels wrong.

249

00:13:04,060 --> 00:13:06,060

Don't hit it too hard, man.

250

00:13:06,060 --> 00:13:08,060

You're going to need to see you blow your hand off.

251

00:13:15,060 --> 00:13:21,060

Grant and Tori make several versions, some with more black powder and some with less.

252

00:13:22,060 --> 00:13:26,060

The rockets are wrapped in paper, then Bill adds the fuse.

253

00:13:26,060 --> 00:13:33,060

When we go to fire, we'll cut this paper and peel it back and give yourself five or six seconds to walk away.

254

00:13:33,060 --> 00:13:34,060

Okay.

255

00:13:35,060 --> 00:13:36,060

You ready?

256

00:13:36,060 --> 00:13:37,060

Yeah.

257

00:13:37,060 --> 00:13:39,060

Let's see what these bad boys can do.

258

00:13:40,060 --> 00:13:43,060

Oh, this is perfect.

259

00:13:43,060 --> 00:13:46,060

I mean, can't you just imagine an invading army coming out of that forest?

260

00:13:46,060 --> 00:13:47,060

Totally.

261

00:13:47,060 --> 00:13:52,060

All right, so we need to see if these arrows can fly 500 yards, so we should walk it out.

262

00:13:52,060 --> 00:13:57,060

They're here to test part one of the myth that a rocket arrow really could make the distance,

263

00:13:57,060 --> 00:14:01,060

but 500 yards is a long, long way.

264

00:14:01,060 --> 00:14:04,060

This is how all horror movies start.

265

00:14:04,060 --> 00:14:07,060

Didn't that guy say stick to the path?

266

00:14:09,060 --> 00:14:10,060

This is going to be perfect.

267

00:14:10,060 --> 00:14:12,060

We're right at the tree line.

268

00:14:12,060 --> 00:14:16,060

The crop ends smack bang on the 500 yard mark.

269

00:14:18,060 --> 00:14:23,060

They tape the target halfway up a tree so they can see it from the launch site.

270

00:14:23,060 --> 00:14:28,060

At this point, I think we're just going for distance rather than aim.

271

00:14:28,060 --> 00:14:34,060

But if I were to take a guess to see whether the arrow had hit him, I'd have to say we probably wouldn't.

272

00:14:34,060 --> 00:14:37,060

But then again, the watcher had 200 arrows.

273

00:14:37,060 --> 00:14:45,060

Back at the business end, they set the mortar to 45 degrees and start with the smallest rocket.

274

00:14:45,060 --> 00:14:49,060

All right, I got a road flare to light the rockets and then we'll see if they go 500 yards.

275

00:14:49,060 --> 00:14:54,060

All right, now to get an accurate range, after it lands, you run out there and stand over where it landed.

276

00:14:54,060 --> 00:14:57,060

You got the range finder and I'll take a range on you.

277

00:14:57,060 --> 00:15:02,060

If this baby bear rocket reaches the trees, they can pack up and go home.

278

00:15:08,060 --> 00:15:10,060

Yeah! Nice!

279

00:15:10,060 --> 00:15:11,060

It didn't really work.

280

00:15:11,060 --> 00:15:14,060

I'm going to have to say it went about zero yards.

281

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

Not enough thrust.

282

00:15:15,060 --> 00:15:16,060

Yes.

283

00:15:18,060 --> 00:15:23,060

It does look a little embarrassing that this is our first rocket that we built and it doesn't even fly.

284

00:15:23,060 --> 00:15:27,060

But that just means this rocket's too small and the arrow's too heavy.

285

00:15:30,060 --> 00:15:32,060

So they try the mama bear charge.

286

00:15:33,060 --> 00:15:34,060

Pack up!

287

00:15:34,060 --> 00:15:38,060

But it's still more blows than goes.

288

00:15:39,060 --> 00:15:40,060

Cool!

289

00:15:40,060 --> 00:15:42,060

There's a lot of reasons why these rockets might not be working.

290

00:15:42,060 --> 00:15:45,060

Maybe we didn't pack the black powder tight enough.

291

00:15:45,060 --> 00:15:50,060

The knob might be the wrong size or the arrows are just too heavy and this rocket can't give it lift.

292

00:15:50,060 --> 00:15:52,060

But we're not going to give up.

293

00:15:52,060 --> 00:15:55,060

We're going to keep trying because we want to get these arrows to fly.

294

00:15:58,060 --> 00:16:02,060

So Grant tries a rocket with more powder and a smaller nozzle.

295

00:16:03,060 --> 00:16:04,060

Quick! They're charging!

296

00:16:11,060 --> 00:16:12,060

Oh, you guys!

297

00:16:12,060 --> 00:16:14,060

That was nuts!

298

00:16:14,060 --> 00:16:16,060

Did you see it go?

299

00:16:16,060 --> 00:16:17,060

Did that arrow roll around?

300

00:16:17,060 --> 00:16:18,060

Alright.

301

00:16:18,060 --> 00:16:19,060

I'm going to see if I can go find that.

302

00:16:19,060 --> 00:16:20,060

Good luck!

303

00:16:23,060 --> 00:16:24,060

Great!

304

00:16:24,060 --> 00:16:25,060

Woo!

305

00:16:26,060 --> 00:16:28,060

That went more than halfway.

306

00:16:28,060 --> 00:16:30,060

Yeah, 290 yards.

307

00:16:30,060 --> 00:16:33,060

As beautiful as that was, it's still not good enough for this myth.

308

00:16:33,060 --> 00:16:36,060

I mean, the arrow only made it to 290 yards.

309

00:16:36,060 --> 00:16:38,060

We're not stopping until we reach 500.

310

00:16:38,060 --> 00:16:44,060

For that, they'll need to double the charge by strapping on two black powder engines.

311

00:16:44,060 --> 00:16:46,060

But will the arrow bear the weight?

312

00:16:46,060 --> 00:16:49,060

Grant adjusts the angle to 50.

313

00:16:49,060 --> 00:16:51,060

That is right on the money.

314

00:16:52,060 --> 00:16:55,060

This field test is all about going the distance.

315

00:16:55,060 --> 00:16:58,060

Landing short would make this myth a misfire.

316

00:16:59,060 --> 00:17:00,060

Come on, baby!

317

00:17:00,060 --> 00:17:01,060

Come on, watch out!

318

00:17:04,060 --> 00:17:05,060

Come on!

319

00:17:05,060 --> 00:17:06,060

Come on!

320

00:17:06,060 --> 00:17:07,060

Whoa!

321

00:17:07,060 --> 00:17:08,060

Come on!

322

00:17:08,060 --> 00:17:09,060

Keep going!

323

00:17:09,060 --> 00:17:10,060

Keep going!

324

00:17:10,060 --> 00:17:11,060

Whoa!

325

00:17:11,060 --> 00:17:13,060

That looked like I had exploded above the jet!

326

00:17:13,060 --> 00:17:14,060

Yes!

327

00:17:14,060 --> 00:17:16,060

I think it's a little bit more powerful than it looks.

328

00:17:16,060 --> 00:17:18,060

That looked like I had exploded above the jet!

329

00:17:18,060 --> 00:17:19,060

Yes!

330

00:17:19,060 --> 00:17:20,060

I think it exploded over the trees, man.

331

00:17:20,060 --> 00:17:22,060

That's 500 yards, buddy.

332

00:17:22,060 --> 00:17:23,060

That went the distance!

333

00:17:23,060 --> 00:17:24,060

Yeah!

334

00:17:27,060 --> 00:17:31,060

The target's untouched, but they've got what they came for.

335

00:17:31,060 --> 00:17:33,060

They reached it.

336

00:17:33,060 --> 00:17:35,060

This part of the myth is confirmed.

337

00:17:35,060 --> 00:17:39,060

God, this is going to be a nightmare, trying to get all 200 arrows to fire off at the same time.

338

00:17:39,060 --> 00:17:44,060

And we're still going to make the cart and find out if that explosive charge is mortally wounding.

339

00:17:44,060 --> 00:17:45,060

We got a lot of work.

340

00:17:45,060 --> 00:17:47,060

We better get back to the shop.

341

00:17:47,060 --> 00:17:48,060

All right.

342

00:17:51,060 --> 00:17:54,060

Adam, Jamie and Carrie are risking their lives.

343

00:17:54,060 --> 00:17:55,060

That should read,

344

00:17:55,060 --> 00:17:58,060

Livers to Test the Myth of Beer Goggles.

345

00:17:58,060 --> 00:18:00,060

This is the best day at work ever.

346

00:18:01,060 --> 00:18:06,060

They've all done the test sober and then buzzed with varied results.

347

00:18:07,060 --> 00:18:09,060

Time to raise the stakes.

348

00:18:09,060 --> 00:18:11,060

I think it's time for a scotch.

349

00:18:11,060 --> 00:18:13,060

And maybe lower their standards.

350

00:18:13,060 --> 00:18:14,060

What are you going to have?

351

00:18:15,060 --> 00:18:17,060

Whatever's in that brown bottle.

352

00:18:17,060 --> 00:18:20,060

Hard to beat a drink of something brown.

353

00:18:21,060 --> 00:18:23,060

Carrie still has a lot to learn.

354

00:18:23,060 --> 00:18:26,060

Like, don't tease the wildlife.

355

00:18:26,060 --> 00:18:28,060

Can I style you? Hold on.

356

00:18:31,060 --> 00:18:33,060

No, I usually don't let people do that.

357

00:18:33,060 --> 00:18:38,060

I know about you, Jamie, but I'm ready to take this test and I know that Carrie is.

358

00:18:39,060 --> 00:18:41,060

Adam blows .11.

359

00:18:41,060 --> 00:18:43,060

That's good enough.

360

00:18:43,060 --> 00:18:45,060

And Jamie .10.

361

00:18:45,060 --> 00:18:46,060

That works.

362

00:18:46,060 --> 00:18:49,060

So technically, they're both a bit wobbly.

363

00:18:51,060 --> 00:18:54,060

As for Carrie, .13.

364

00:18:54,060 --> 00:18:56,060

Dude, you are so ready for this test.

365

00:18:57,060 --> 00:19:02,060

In fact, they're all well primed for part three of the Beer Goggles Challenge.

366

00:19:02,060 --> 00:19:08,060

These last 30 faces are a random mix of those they've seen sober and buzzed.

367

00:19:08,060 --> 00:19:10,060

She's pretty darn cute.

368

00:19:10,060 --> 00:19:11,060

Eight.

369

00:19:11,060 --> 00:19:13,060

She's very cute.

370

00:19:13,060 --> 00:19:15,060

I've met her.

371

00:19:17,060 --> 00:19:20,060

It seems like in each group there's a lot more cute checks.

372

00:19:21,060 --> 00:19:25,060

When he's done, Adam's score reflects his growing enthusiasm.

373

00:19:25,060 --> 00:19:27,060

134!

374

00:19:29,060 --> 00:19:30,060

Wow.

375

00:19:31,060 --> 00:19:34,060

But the wild card here is Carrie.

376

00:19:34,060 --> 00:19:38,060

She was far harsher buzzed, so this could be anything.

377

00:19:38,060 --> 00:19:39,060

Carrie.

378

00:19:39,060 --> 00:19:41,060

Drunk.

379

00:19:41,060 --> 00:19:43,060

Carrie, correct.

380

00:19:43,060 --> 00:19:48,060

Her 30 guys look set for another beating, assuming she can still see straight.

381

00:19:48,060 --> 00:19:51,060

You look homeless, but kind of cute.

382

00:19:51,060 --> 00:19:53,060

It's alright.

383

00:19:54,060 --> 00:19:57,060

Even Carrie's surprised that the tide might be turning.

384

00:19:57,060 --> 00:20:04,060

When I was sober, I was definitely thinking that confident looking people looked sort of attractive.

385

00:20:04,060 --> 00:20:07,060

And then as I was buzzed, they looked cocky.

386

00:20:07,060 --> 00:20:16,060

And then as I got drunker, I was sort of thinking that the people that were attractive were sort of the more vulnerable looking people.

387

00:20:16,060 --> 00:20:18,060

Sort of like the more sadder characters.

388

00:20:18,060 --> 00:20:20,060

They just, they looked cuter.

389

00:20:20,060 --> 00:20:25,060

And that's why men will never, ever guess what a woman is thinking.

390

00:20:25,060 --> 00:20:27,060

Carrie's score is 153.

391

00:20:27,060 --> 00:20:33,060

I can't remember if that's higher or lower than either of my scores.

392

00:20:33,060 --> 00:20:37,060

That's a 64 point jump from last time.

393

00:20:37,060 --> 00:20:41,060

As for the man bent on putting reason back into romance.

394

00:20:41,060 --> 00:20:43,060

Jamie, drunk.

395

00:20:43,060 --> 00:20:45,060

Start.

396

00:20:45,060 --> 00:20:48,060

Drunk, buzzed, sober.

397

00:20:48,060 --> 00:20:51,060

An apple's an apple, and an orange is an orange.

398

00:20:53,060 --> 00:20:55,060

There we go.

399

00:20:55,060 --> 00:20:58,060

Drunk score 111.

400

00:20:58,060 --> 00:21:02,060

From stone cold sober to stinking drunk.

401

00:21:02,060 --> 00:21:06,060

Jamie's judgment varied by just 11 points.

402

00:21:06,060 --> 00:21:12,060

Basically what I'm saying is that I don't see that I'm subject to beer goggles.

403

00:21:12,060 --> 00:21:18,060

With three very different results, they'll make or break this myth by checking the numbers.

404

00:21:18,060 --> 00:21:22,060

I don't know about you two reprobates, but I don't feel in any condition to crunch any numbers.

405

00:21:22,060 --> 00:21:27,060

I think we ought to go home, drink a lot of water, sober up, and come back tomorrow.

406

00:21:27,060 --> 00:21:29,060

Did you say you were calling a taxi?

407

00:21:29,060 --> 00:21:31,060

Tax? Absolutely.

408

00:21:31,060 --> 00:21:35,060

Looks to me like we all had very different reactions to the alcohol.

409

00:21:35,060 --> 00:21:37,060

What do you two make out of it?

410

00:21:37,060 --> 00:21:42,060

I'll tell you what I see. If this myth were totally confirmed, all three of our graph lines would look like mine.

411

00:21:42,060 --> 00:21:50,060

A steady improvement in our assessment of the attractiveness of the opposite sex directly in proportion to the amount of alcohol we consumed.

412

00:21:50,060 --> 00:21:53,060

It definitely looks like it was way harsher when I was buzzed than when I was sober.

413

00:21:53,060 --> 00:21:55,060

And I look pretty consistent all in all.

414

00:21:55,060 --> 00:22:00,060

However, I'd like to point out that both of you showed improvement from being buzzed to being drunk.

415

00:22:00,060 --> 00:22:06,060

That result, combined with my steady improvement all along the line, tells me this one is easily plausible.

416

00:22:06,060 --> 00:22:08,060

Definitely plausible.

417

00:22:08,060 --> 00:22:10,060

Okay, plausible.

418

00:22:16,060 --> 00:22:23,060

Adam and Jamie have already drunk themselves sideways for science, but there's no time to sleep it off.

419

00:22:23,060 --> 00:22:27,060

In fact, that's exactly the point of our next myth.

420

00:22:27,060 --> 00:22:34,060

Well, I've been thinking along the lines of drinking myths, I have always wanted to do sobering up techniques,

421

00:22:34,060 --> 00:22:41,060

specifically because I've always wanted to see a high-speed shot of somebody getting smacked in the face.

422

00:22:41,060 --> 00:22:45,060

Well, as long as that somebody is you, I'm okay with it.

423

00:22:45,060 --> 00:22:51,060

I'll take that on. We can add to it to black coffee, exercise, whatever else people do to sober up.

424

00:22:51,060 --> 00:22:53,060

But we've got to get drunk again.

425

00:22:53,060 --> 00:22:58,060

Well, we've already shot the first part of the week. Let's finish it off.

426

00:22:58,060 --> 00:22:59,060

Okay.

427

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

Almost since the invention of alcohol, people have been drinking too much and then finding for one reason or another

428

00:23:05,060 --> 00:23:08,060

that they needed to get sober quickly.

429

00:23:08,060 --> 00:23:11,060

And they have tried a myriad of techniques.

430

00:23:11,060 --> 00:23:15,060

Techniques like drinking a big cup of black coffee.

431

00:23:15,060 --> 00:23:17,060

Vigorous exercise.

432

00:23:17,060 --> 00:23:20,060

It's also supposed to work.

433

00:23:20,060 --> 00:23:23,060

Dunking your face in some ice water.

434

00:23:23,060 --> 00:23:26,060

That's also supposed to work.

435

00:23:26,060 --> 00:23:33,060

Also, your friends might be inclined to smack you in the face to sober you up.

436

00:23:33,060 --> 00:23:35,060

Of course, it all begins at the bar.

437

00:23:35,060 --> 00:23:38,060

And although we're going to test every one of these, we've got to get drunk first.

438

00:23:38,060 --> 00:23:41,060

Buster, set me up.

439

00:23:41,060 --> 00:23:45,060

So the boys fall back off the wagon.

440

00:23:45,060 --> 00:23:49,060

So you in town for a long time? Are you here for the convention?

441

00:23:49,060 --> 00:23:51,060

Yeah, I'm here to get a shot.

442

00:23:51,060 --> 00:23:53,060

Leave me alone.

443

00:23:53,060 --> 00:23:55,060

There's those people skills hard at work.

444

00:23:55,060 --> 00:23:58,060

And that's just the first shot of five.

445

00:23:58,060 --> 00:24:06,060

Realizing that things might turn ugly, the producers got Adam to pre-record the plan.

446

00:24:06,060 --> 00:24:13,060

Because this whole story hinges on whether or not we are more or less sober, the researchers have found us the perfect test to determine that.

447

00:24:13,060 --> 00:24:18,060

This is a hand-eye coordination test that's very similar to one developed for astronauts.

448

00:24:18,060 --> 00:24:25,060

It simply involves standing at arms length from the screen with weights on your arm and tracing this gray line.

449

00:24:25,060 --> 00:24:34,060

We are scored on both accuracy, how many times our line leaves the gray line, and for how long, and speed, how long it takes to make the whole journey.

450

00:24:34,060 --> 00:24:40,060

We've got a number of these. They're all different, but they're all the same length and involve the same number of turns.

451

00:24:40,060 --> 00:24:48,060

Jamie and I will each take one of these tests before trying the sobering-up technique and take another one after trying the sobering-up technique.

452

00:24:48,060 --> 00:24:53,060

And we will each act as each other's controls, swapping out between techniques.

453

00:24:53,060 --> 00:24:55,060

That's the Rovia.

454

00:24:55,060 --> 00:24:57,060

That's the Rovia.

455

00:25:02,060 --> 00:25:06,060

They'll need to stay consistently drunk to validate the cures.

456

00:25:06,060 --> 00:25:10,060

This is like taking medicine or something. It takes all the fun out of it.

457

00:25:10,060 --> 00:25:12,060

I know what you mean, brother.

458

00:25:20,060 --> 00:25:24,060

Tori and Grant have checked off the first part of the Huacha myth.

459

00:25:24,060 --> 00:25:29,060

A bamboo arrow with a gunpowder engine can fly 500 yards.

460

00:25:30,060 --> 00:25:34,060

Part two of the test is to see if the arrows were double-deadly.

461

00:25:34,060 --> 00:25:39,060

A warhead filled with more gunpowder was meant to explode on impact.

462

00:25:39,060 --> 00:25:43,060

But will it do more than just singe the skin?

463

00:25:43,060 --> 00:25:45,060

Only one way to find out.

464

00:25:45,060 --> 00:25:49,060

We're going to stick this arrow in my butt and find out what kind of damage it does.

465

00:25:49,060 --> 00:25:53,060

But not exactly my butt. This butt. This is my ticket onto the show.

466

00:25:53,060 --> 00:25:58,060

Jamie and Adam were doing a myth about airplane suction, and they needed to take a 3D scan of my backside.

467

00:25:58,060 --> 00:26:01,060

That's a good deal to get.

468

00:26:01,060 --> 00:26:04,060

Rest is history. They gave me a job on the show.

469

00:26:06,060 --> 00:26:12,060

Bend on adding injury to insult, the boys haul Kari's keister out to the shipping container.

470

00:26:12,060 --> 00:26:19,060

So this test is not about accuracy. We're going to have the arrow already in the butt when we start the test.

471

00:26:19,060 --> 00:26:23,060

Grant sets the fuse while Kari lays the odds.

472

00:26:23,060 --> 00:26:28,060

I think we could be looking forward to a nice big hole in this target.

473

00:26:28,060 --> 00:26:31,060

Yes, I heard that too.

474

00:26:31,060 --> 00:26:34,060

Let's say we just fast-track to the countdown.

475

00:26:34,060 --> 00:26:37,060

Alright, three, two, one.

476

00:26:40,060 --> 00:26:42,060

Yeah!

477

00:26:42,060 --> 00:26:44,060

Woo-hoo!

478

00:26:44,060 --> 00:26:45,060

That was good!

479

00:26:49,060 --> 00:26:52,060

But good isn't quite the same as great.

480

00:26:53,060 --> 00:26:59,060

So we didn't exactly get the kind of damage we were expecting with this test.

481

00:26:59,060 --> 00:27:06,060

And I think part of that is that the dragon skin isn't an exact analog for flesh. We need something better.

482

00:27:06,060 --> 00:27:10,060

So Kari butts out, and a pig part takes over.

483

00:27:10,060 --> 00:27:13,060

Tori prepares a leg of pork.

484

00:27:13,060 --> 00:27:16,060

Oh, you f***ing little pig.

485

00:27:16,060 --> 00:27:20,060

Grant inserts the fuse, and hopefully we're making bacon.

486

00:27:20,060 --> 00:27:23,060

This is tissue damage test on pork.

487

00:27:23,060 --> 00:27:26,060

In three, two, one.

488

00:27:29,060 --> 00:27:31,060

Oh-ho-ho!

489

00:27:31,060 --> 00:27:33,060

Wow, that's good!

490

00:27:38,060 --> 00:27:40,060

Oh-ho-ho!

491

00:27:40,060 --> 00:27:44,060

Wow, look at that. More burning of flesh.

492

00:27:44,060 --> 00:27:49,060

Alright, but as far as making it, a mortal wound that explodes inside you?

493

00:27:49,060 --> 00:27:53,060

Yeah, the arrow itself is probably going to do more damage than the explosion.

494

00:27:55,060 --> 00:28:03,060

But we're testing for deadly injury, so it's worth rewrapping the warhead to push all that explosive energy forwards.

495

00:28:03,060 --> 00:28:08,060

That's a larger, exploding arrow.

496

00:28:08,060 --> 00:28:16,060

I think the boys really were hoping for some sort of grrrr and gore and mess, but what really happened is the energy took the path of least resistance.

497

00:28:16,060 --> 00:28:19,060

In three, two, one.

498

00:28:27,060 --> 00:28:30,060

Wow, look at how much damage that did.

499

00:28:30,060 --> 00:28:32,060

That's a little more what you were looking for.

500

00:28:32,060 --> 00:28:35,060

And exactly what they were hoping for.

501

00:28:36,060 --> 00:28:42,060

This is the same amount of black powder as a test before. The only difference is how we contained it.

502

00:28:42,060 --> 00:28:48,060

Now, before we had a thin paper tube, the tube blew out and all the energy was being released.

503

00:28:48,060 --> 00:28:54,060

In this test, we sealed both ends of the container and had a small fuse going in.

504

00:28:54,060 --> 00:29:00,060

So all that energy that was being lost, built up, built up, built up, and BAMBOOM! Big world.

505

00:29:00,060 --> 00:29:11,060

That's two-thirds of the legend confirmed. The arrows can fly 500 yards, and they can cause serious additional damage when they explode on impact.

506

00:29:12,060 --> 00:29:20,060

To test part three, whether 200 arrows really could fire together, they need to build their own replica HWACHA.

507

00:29:20,060 --> 00:29:22,060

It's going to be easier when it's got wheels on it.

508

00:29:22,060 --> 00:29:26,060

You can only use wooden bamboo, the ancient materials that they would have had.

509

00:29:26,060 --> 00:29:37,060

Basically, it's an ancient rocket launcher. The literal translation is fire attack car, but I prefer saying HWACHA.

510

00:29:37,060 --> 00:29:40,060

Tori gets stuck into the carpentry.

511

00:29:41,060 --> 00:29:51,060

While Grant carves a life-sized army of Styrofoam soldiers, all faded to end their days as Korean cannon fodder.

512

00:29:55,060 --> 00:29:59,060

You know, since Tori told us about the HWACHA, I've been doing a little bit of research about it.

513

00:29:59,060 --> 00:30:05,060

It turns out that the first one was made in 1409 during the Joseon Dynasty by Korean scientists, but they say that one wasn't used in combat.

514

00:30:05,060 --> 00:30:16,060

Yeah, and by 1503, it had become such an effective weapon that in the Battle of Hangju, 3,000 Korean soldiers and 40 HWACHAs repelled over 30,000 Japanese troops.

515

00:30:16,060 --> 00:30:18,060

So they were out number 10-1.

516

00:30:18,060 --> 00:30:24,060

Yeah, in fact, at that time, the HWACHA had become a primary defensive strategy. They just lined the borders with them.

517

00:30:24,060 --> 00:30:27,060

That's cool. I hope ours can live up to that legacy.

518

00:30:28,060 --> 00:30:35,060

Tori's exceeded all expectations, building a near-perfect HWACHA based on nothing more than photos.

519

00:30:35,060 --> 00:30:40,060

He adds a splash of timber stain and some old, tiny wheels.

520

00:30:40,060 --> 00:30:46,060

And the wheels also act as an angle finder, so you can find the best angle for your trajectory.

521

00:30:46,060 --> 00:30:51,060

This is going to be awesome. Grant's army does not stand a chance.

522

00:30:52,060 --> 00:31:01,060

Adam and Jamie are all set to test four mythical ways to sober up fast.

523

00:31:01,060 --> 00:31:03,060

Uh-oh.

524

00:31:03,060 --> 00:31:09,060

So far, all they've done is drink themselves stupid. Well, stupider.

525

00:31:09,060 --> 00:31:15,060

Coffee, ice water, you name it. There are things that people try to try and sober up.

526

00:31:15,060 --> 00:31:24,060

We're going to test that and see whether I can actually function better than I can now, because obviously I'm not doing too well.

527

00:31:24,060 --> 00:31:29,060

This NASA-inspired test is the modern version of walking a straight line.

528

00:31:29,060 --> 00:31:37,060

First off, our crash test drunk straps weights to his riding wrist, then signs his name at arm's length.

529

00:31:39,060 --> 00:31:44,060

Your name is Jamie or Johnny. Okay, when you hit the begin.

530

00:31:45,060 --> 00:31:52,060

Jamie tries tracing a thin gray line. This test is judged on accuracy and speed.

531

00:31:52,060 --> 00:32:01,060

I should point out that each of these tests is different, yet it includes the same amount of right-hand turns, left-hand turns, and curves and overall distance.

532

00:32:01,060 --> 00:32:02,060

Shut up.

533

00:32:02,060 --> 00:32:06,060

What happened over here? Did you cough or something?

534

00:32:06,060 --> 00:32:08,060

43 seconds.

535

00:32:08,060 --> 00:32:14,060

Now it's Adam's turn to sign on, then post a score that reflects his hand-eye coordination.

536

00:32:21,060 --> 00:32:22,060

What is that?

537

00:32:22,060 --> 00:32:23,060

42.

538

00:32:23,060 --> 00:32:26,060

42? Is that exactly the same time as you?

539

00:32:26,060 --> 00:32:27,060

Yeah.

540

00:32:27,060 --> 00:32:33,060

While Adam stays pleasantly pickled, Jamie tries the first detoxifier.

541

00:32:33,060 --> 00:32:34,060

That is black coffee.

542

00:32:34,060 --> 00:32:36,060

What are you doing?

543

00:32:36,060 --> 00:32:39,060

I'm the control. See?

544

00:32:39,060 --> 00:32:41,060

I don't think you're very much under control.

545

00:32:41,060 --> 00:32:44,060

I'm not under control. I am THE control.

546

00:32:44,060 --> 00:32:55,060

You drink that whole cup of coffee, we wait five minutes, and then we test you cognitively and breathalyzerly again to see if there's any stark improvement.

547

00:32:55,060 --> 00:32:59,060

And then I do the same two tests to see if there's a difference in the improvement.

548

00:32:59,060 --> 00:33:09,060

The very idea that people always say is black coffee will sober him up, and thus we've got to test it just the way it's set.

549

00:33:09,060 --> 00:33:12,060

It's the only way it sinks into people.

550

00:33:12,060 --> 00:33:14,060

You sound like you're drunk.

551

00:33:14,060 --> 00:33:17,060

In fact, I am.

552

00:33:17,060 --> 00:33:26,060

But how drunk is Jamie after the coffee? His cursive shows signs of improvement, and his trace test looks quick and steady.

553

00:33:26,060 --> 00:33:28,060

Whenever you're ready.

554

00:33:29,060 --> 00:33:42,060

I feel rapidly improving. I don't know what to make of that, but I don't feel like crunching any data while I'm drunk.

555

00:33:42,060 --> 00:33:43,060

Okay.

556

00:33:43,060 --> 00:33:45,060

And it's all about the data.

557

00:33:45,060 --> 00:33:47,060

Oh!

558

00:33:47,060 --> 00:33:53,060

Adam, who also blew .07, completes his non-coffee control test.

559

00:33:53,060 --> 00:33:55,060

32!

560

00:33:55,060 --> 00:33:57,060

So it's back to the bar.

561

00:33:57,060 --> 00:34:04,060

Adam treats himself to a few cups of joe, so he and Jamie are back on a kind of even keel.

562

00:34:04,060 --> 00:34:07,060

Here's mud in your eye.

563

00:34:09,060 --> 00:34:11,060

Oh, this is vile.

564

00:34:11,060 --> 00:34:14,060

Now for a much needed spurt of spirits.

565

00:34:14,060 --> 00:34:22,060

On the assumption that the average adult male of our size processes metabolizes, as you might say, one drink per hour.

566

00:34:22,060 --> 00:34:25,060

We are having a maintenance drink right now.

567

00:34:25,060 --> 00:34:33,060

It's about now we'd normally warn you about excessive drinking, but those two miserable mugs tell the story.

568

00:34:33,060 --> 00:34:34,060

That's blus.

569

00:34:34,060 --> 00:34:40,060

Technique number two for sobering up is vigorous exercise at Adam's The Guinea Pig.

570

00:34:40,060 --> 00:34:44,060

It's all a numbers game, and here's a few more to consider.

571

00:34:44,060 --> 00:34:49,060

Adam has to run this treadmill for five minutes at six and a half miles per hour.

572

00:34:49,060 --> 00:34:50,060

This is scary.

573

00:34:50,060 --> 00:34:53,060

His blood alcohol is .09.

574

00:34:53,060 --> 00:34:55,060

Wow!

575

00:34:58,060 --> 00:35:01,060

I'm gonna have to concentrate on this.

576

00:35:01,060 --> 00:35:09,060

Adam's hunger green screen for inspiration, but then realizes it won't work because you can't see it.

577

00:35:09,060 --> 00:35:12,060

Some decisions really are best made sober.

578

00:35:12,060 --> 00:35:13,060

One minute.

579

00:35:13,060 --> 00:35:16,060

Oh my God, I'm gonna die.

580

00:35:16,060 --> 00:35:18,060

Two minutes.

581

00:35:18,060 --> 00:35:20,060

Two minutes.

582

00:35:20,060 --> 00:35:22,060

Screw that.

583

00:35:22,060 --> 00:35:25,060

You're not even sweaty yet. What's the problem?

584

00:35:25,060 --> 00:35:30,060

I don't know if I'm closer to being sober, but I'm certainly closer to being dead.

585

00:35:30,060 --> 00:35:32,060

The smart money's on dead.

586

00:35:32,060 --> 00:35:34,060

Even Jamie has his drunken depths.

587

00:35:34,060 --> 00:35:37,060

Look, we picked a treadmill because it's compact.

588

00:35:37,060 --> 00:35:39,060

It makes it easy for us to film this thing.

589

00:35:39,060 --> 00:35:45,060

But now that I'm looking at it, I remember that it takes a fair amount of coordination just to stay on the damn thing.

590

00:35:45,060 --> 00:35:47,060

And Adam's drunk.

591

00:35:47,060 --> 00:35:51,060

What can I say? Even soused the man's up profit.

592

00:35:51,060 --> 00:35:53,060

Whoa!

593

00:35:56,060 --> 00:35:59,060

Okay, I'm totally cool.

594

00:36:00,060 --> 00:36:03,060

Now, here's two advantages to being drunk as a skunk.

595

00:36:03,060 --> 00:36:07,060

One, he won't feel the pain till tomorrow.

596

00:36:07,060 --> 00:36:12,060

And two, Adam's judgment is so impaired, he gets back on the darn thing.

597

00:36:12,060 --> 00:36:14,060

I didn't break any bones.

598

00:36:14,060 --> 00:36:16,060

Ten seconds.

599

00:36:17,060 --> 00:36:19,060

Eight.

600

00:36:19,060 --> 00:36:21,060

Did my watch break?

601

00:36:21,060 --> 00:36:26,060

Six, five, three, two, one. You're done.

602

00:36:26,060 --> 00:36:30,060

The good news for Adam's mom is that he's still breathing heavily.

603

00:36:30,060 --> 00:36:35,060

There's a lot of competition, but that might be the worst thing I've ever had to do on the show.

604

00:36:36,060 --> 00:36:42,060

There comes a time when no one wants to be drunk.

605

00:36:42,060 --> 00:36:47,060

So Adam and Jamie take the four-step plan to get sober in a hurry.

606

00:36:47,060 --> 00:36:52,060

So far, they've tried black coffee and vigorous exercise.

607

00:36:52,060 --> 00:37:00,060

Before and after each, they both took a coordination test and will sift the numbers once they're done.

608

00:37:00,060 --> 00:37:02,060

I don't know what to make of that.

609

00:37:02,060 --> 00:37:04,060

It's been unpleasant.

610

00:37:04,060 --> 00:37:06,060

Even painful.

611

00:37:10,060 --> 00:37:16,060

And now they're down to two mythical cures that should at least be mercifully brief.

612

00:37:16,060 --> 00:37:20,060

The first is a face-freezing, dunk-in-ice water.

613

00:37:20,060 --> 00:37:25,060

Adam's the control, so Jamie gets his eyebrows iced.

614

00:37:25,060 --> 00:37:28,060

I think within the pantheon of the top of the head,

615

00:37:28,060 --> 00:37:32,060

it's cold water is in the shock to the system category.

616

00:37:32,060 --> 00:37:36,060

I guess just the same way it can wake you up in the morning,

617

00:37:36,060 --> 00:37:38,060

it's supposed to snap you out of your drunkenness.

618

00:37:38,060 --> 00:37:43,060

Both the boys have blown 0.08, but it still takes guts to take the plunge.

619

00:37:43,060 --> 00:37:45,060

Oh, God.

620

00:37:47,060 --> 00:37:50,060

Take it, take it, take it! That's it! Yeah!

621

00:37:53,060 --> 00:37:56,060

Jamie's either dead or in a hurry.

622

00:37:56,060 --> 00:37:59,060

Jamie's either dead or just enjoying himself.

623

00:37:59,060 --> 00:38:02,060

Wow, look at him. He's like a polar bear.

624

00:38:02,060 --> 00:38:05,060

He's like an aquatic mammal. You ready?

625

00:38:05,060 --> 00:38:07,060

That feels kind of good, actually.

626

00:38:09,060 --> 00:38:10,060

There you go.

627

00:38:10,060 --> 00:38:14,060

I thought it was going to be painful, but I kind of liked it.

628

00:38:17,060 --> 00:38:22,060

As always, the boys run a post-cure test to collect the data.

629

00:38:26,060 --> 00:38:28,060

23 seconds.

630

00:38:28,060 --> 00:38:31,060

Now for the fastest and nastiest myth of all.

631

00:38:31,060 --> 00:38:35,060

It's a simple technique that always seems to work in the movies.

632

00:38:35,060 --> 00:38:38,060

When I was thinking about sobering up techniques, I noticed in the movies,

633

00:38:38,060 --> 00:38:40,060

whenever someone's passed out drunk, somebody else goes,

634

00:38:40,060 --> 00:38:42,060

come on, man, wake up.

635

00:38:42,060 --> 00:38:46,060

Adam's feeling no pain, but that's about to change.

636

00:38:46,060 --> 00:38:50,060

He's the slap-ee, and Jamie's the slapper.

637

00:38:50,060 --> 00:38:53,060

Face slap. Let's see, will it work?

638

00:38:53,060 --> 00:38:57,060

I don't know, but it's been something I wanted to do for a long time,

639

00:38:57,060 --> 00:38:59,060

so I don't care.

640

00:38:59,060 --> 00:39:03,060

Nor do we. This one's been a long time coming.

641

00:39:03,060 --> 00:39:06,060

I don't think it's Jamie's interest to give me brain damage.

642

00:39:06,060 --> 00:39:08,060

I'm half of his meal ticket, but at the same time,

643

00:39:08,060 --> 00:39:11,060

I know it's going to hurt and it's going to really suck.

644

00:39:11,060 --> 00:39:13,060

I have to admit I'm a little scared.

645

00:39:13,060 --> 00:39:16,060

And with very good reason.

646

00:39:16,060 --> 00:39:19,060

Just remember, this is going to hurt you a lot more than it will hurt me.

647

00:39:19,060 --> 00:39:21,060

Ha ha, okay.

648

00:39:24,060 --> 00:39:30,060

Oh, holy crap.

649

00:39:30,060 --> 00:39:34,060

Holy bleeping, bleeping, bleep.

650

00:39:34,060 --> 00:39:36,060

Can I do that again, though? It's kind of fun.

651

00:39:36,060 --> 00:39:39,060

No, that made my head ring.

652

00:39:39,060 --> 00:39:44,060

It definitely took my mind off feeling crappy and drunk,

653

00:39:44,060 --> 00:39:48,060

but I think that's the same effect that it's like, if you feel hurt,

654

00:39:48,060 --> 00:39:51,060

you drink a little alcohol and you wouldn't care so much about being hurt.

655

00:39:51,060 --> 00:39:54,060

It's like the opposite effect.

656

00:39:54,060 --> 00:39:58,060

Oh, ho ho ho ho ho ho ho ho.

657

00:39:58,060 --> 00:40:00,060

There's a good size slap there.

658

00:40:00,060 --> 00:40:02,060

Let's look at it again.

659

00:40:02,060 --> 00:40:03,060

Well, he did ask for it.

660

00:40:03,060 --> 00:40:05,060

Here it comes.

661

00:40:05,060 --> 00:40:06,060

Oh crap.

662

00:40:06,060 --> 00:40:09,060

Oh my god.

663

00:40:12,060 --> 00:40:15,060

Oh my god.

664

00:40:15,060 --> 00:40:17,060

It's like your whole head is rubber.

665

00:40:17,060 --> 00:40:20,060

That's the funniest thing I've ever seen.

666

00:40:21,060 --> 00:40:25,060

For the last time, the boys blow the bag and trace the graph.

667

00:40:30,060 --> 00:40:32,060

Twenty-one seconds.

668

00:40:32,060 --> 00:40:36,060

They're far too drunk to know what worked and what didn't,

669

00:40:36,060 --> 00:40:39,060

but the stats they've gathered will tell the story.

670

00:40:41,060 --> 00:40:44,060

So, brewing up techniques, this looks pretty slick.

671

00:40:44,060 --> 00:40:46,060

Is it going to help us wrap it up?

672

00:40:46,060 --> 00:40:48,060

In fact, it will. Let me walk you through it.

673

00:40:48,060 --> 00:40:50,060

This is you pre-coffee.

674

00:40:50,060 --> 00:40:54,060

Then you drank three cups of coffee and your score improved.

675

00:40:54,060 --> 00:40:58,060

However, I was the control and my score improved pretty much at the exact same rate.

676

00:40:58,060 --> 00:41:01,060

So, I'd say coffee is busted.

677

00:41:01,060 --> 00:41:04,060

Now, here is me pre-exercise.

678

00:41:04,060 --> 00:41:06,060

Here is me post-exercise.

679

00:41:06,060 --> 00:41:08,060

That's a pretty radical improvement.

680

00:41:08,060 --> 00:41:11,060

But I stayed about the same, so that means it's plausible, right?

681

00:41:11,060 --> 00:41:13,060

I totally agree. Plausible it is.

682

00:41:13,060 --> 00:41:16,060

Now, you were the one that dug your head in a bucket of ice water.

683

00:41:16,060 --> 00:41:19,060

Here is you before. Here is you after.

684

00:41:19,060 --> 00:41:21,060

A little lack of improvement.

685

00:41:21,060 --> 00:41:22,060

Mine was about the same.

686

00:41:22,060 --> 00:41:25,060

I say ice water. It's totally busted.

687

00:41:25,060 --> 00:41:28,060

What about the slap? My favorite.

688

00:41:28,060 --> 00:41:31,060

Okay. Here is me pre-slap.

689

00:41:31,060 --> 00:41:33,060

Here is me post-slap.

690

00:41:33,060 --> 00:41:36,060

I think that's a pretty undeniable radical improvement.

691

00:41:36,060 --> 00:41:38,060

You helped me out a lot. I'd say this one's plausible.

692

00:41:38,060 --> 00:41:40,060

I'll have to remember that.

693

00:41:40,060 --> 00:41:46,060

The best part is, all of these results are totally backed up by the breathalyzer data we got as well.

694

00:41:46,060 --> 00:41:48,060

I guess that does wrap it up.

695

00:41:48,060 --> 00:41:51,060

Totally. No more drinking for us.

696

00:42:10,060 --> 00:42:13,060

Do they have any idea what we're going to do today?

697

00:42:13,060 --> 00:42:15,060

No.

698

00:42:18,060 --> 00:42:22,060

No one doubts the existence of this medieval Korean arrow launcher,

699

00:42:22,060 --> 00:42:25,060

but many doubt its capabilities.

700

00:42:25,060 --> 00:42:31,060

We've surprised ourselves by proving these rocket arrows could fly 500 yards,

701

00:42:31,060 --> 00:42:36,060

then explode on impact.

702

00:42:36,060 --> 00:42:38,060

Whoa!

703

00:42:38,060 --> 00:42:44,060

Now to see if they can all launch together to devastate Grant's grunts.

704

00:42:44,060 --> 00:42:46,060

Drafted. Drafted.

705

00:42:46,060 --> 00:42:48,060

Good thing you got a light infantry.

706

00:42:48,060 --> 00:42:51,060

Oh, how long you been saving that one?

707

00:42:51,060 --> 00:42:52,060

Not long enough.

708

00:42:52,060 --> 00:42:57,060

Now all 200 arrows need to be charged, and it's safety first.

709

00:42:57,060 --> 00:43:00,060

We're starting to build our rockets and attaching our explosive heads.

710

00:43:00,060 --> 00:43:03,060

But just like Zambelli's, we're separating our stations.

711

00:43:03,060 --> 00:43:07,060

So if one of us goes up, we don't take all the rest out with them.

712

00:43:08,060 --> 00:43:12,060

Tori and I will be adding the black powder and sealing up the warheads,

713

00:43:12,060 --> 00:43:14,060

and we'll pass these off to Kari,

714

00:43:14,060 --> 00:43:19,060

who will be putting the rockets in their final tubes and attaching them to the arrows.

715

00:43:19,060 --> 00:43:23,060

I've been making fireworks as I was a little kid, 30 years.

716

00:43:23,060 --> 00:43:25,060

I never had a problem.

717

00:43:25,060 --> 00:43:30,060

When the arrows are finished, the star of the show is coaxed from the trailer.

718

00:43:30,060 --> 00:43:32,060

Watch it all!

719

00:43:34,060 --> 00:43:36,060

There you go.

720

00:43:36,060 --> 00:43:37,060

It's free!

721

00:43:37,060 --> 00:43:39,060

Let's roll it into position.

722

00:43:40,060 --> 00:43:45,060

Tori sights the machine on level ground, and he's covered all the angles.

723

00:43:45,060 --> 00:43:47,060

All right.

724

00:43:47,060 --> 00:43:51,060

And this is a 50-degree trajectory.

725

00:43:51,060 --> 00:43:53,060

All right, well, armor's going to be right over there.

726

00:43:53,060 --> 00:43:57,060

All right, let's measure out 500 yards and set up your army.

727

00:43:58,060 --> 00:44:03,060

Grant's army is just 50 strong, staked out in a loose skirmish formation.

728

00:44:03,060 --> 00:44:06,060

It comes to recruiting foam people.

729

00:44:06,060 --> 00:44:12,060

They're not that bright, so it's easy to convince them to stand out there in the field.

730

00:44:13,060 --> 00:44:15,060

Be ready to load the huacha.

731

00:44:15,060 --> 00:44:17,060

I'm getting excited.

732

00:44:17,060 --> 00:44:20,060

I must say I'm getting a little enthused myself.

733

00:44:20,060 --> 00:44:22,060

All 200 tubes are loaded.

734

00:44:22,060 --> 00:44:24,060

Something's going to happen.

735

00:44:25,060 --> 00:44:28,060

And they know they'll only get one shot at this.

736

00:44:28,060 --> 00:44:32,060

Okay, so all the individual arrows are now fused,

737

00:44:32,060 --> 00:44:36,060

and the idea is that we group them together and just keep grouping them together,

738

00:44:36,060 --> 00:44:42,060

grouping them together, and telling the end we have one final fuse that we light and then run away.

739

00:44:42,060 --> 00:44:45,060

We've made a lot of ancient weaponry on this show.

740

00:44:45,060 --> 00:44:48,060

This is by far my favorite.

741

00:44:48,060 --> 00:44:52,060

This actually outdoes the ballista, and it outdoes the death ray for me.

742

00:44:52,060 --> 00:44:56,060

This is actually the coolest ancient weapon we've ever made.

743

00:44:57,060 --> 00:45:01,060

But will the huacha live up to its reputation?

744

00:45:01,060 --> 00:45:03,060

Carrie's prepared to stake hers.

745

00:45:03,060 --> 00:45:05,060

I think it's going to take down the army.

746

00:45:05,060 --> 00:45:08,060

I'm guessing at least 50% go down.

747

00:45:08,060 --> 00:45:11,060

And that's got the infantry trembling in its boots.

748

00:45:15,060 --> 00:45:17,060

Alright, well somebody's got to like the fuse.

749

00:45:17,060 --> 00:45:22,060

I figured the only fair thing is because we all worked on it, and we draw straws.

750

00:45:22,060 --> 00:45:26,060

Alright, buddy, let's do this.

751

00:45:26,060 --> 00:45:28,060

Get it.

752

00:45:28,060 --> 00:45:31,060

Grant's alleys forth to light the master fuse.

753

00:45:31,060 --> 00:45:35,060

Quick, your army is attacking! Run, Grant!

754

00:45:35,060 --> 00:45:38,060

Then, tautles back to safety.

755

00:45:38,060 --> 00:45:40,060

It's going.

756

00:45:40,060 --> 00:45:42,060

We got a little bit of time here.

757

00:45:42,060 --> 00:45:47,060

They know something's bound to happen, but will these arrows all take off together?

758

00:45:47,060 --> 00:45:49,060

Another 30 seconds.

759

00:45:49,060 --> 00:45:51,060

You can see multiple fuses going.

760

00:45:51,060 --> 00:45:55,060

Or will the huacha just blow itself to pieces?

761

00:45:55,060 --> 00:45:58,060

Look at all the smelch.

762

00:45:58,060 --> 00:46:02,060

The tension builds as the fuse burns down.

763

00:46:02,060 --> 00:46:09,060

No one knows just when, or even if, the last part of this myth will catch fire.

764

00:46:09,060 --> 00:46:11,060

Something's happening! Something's happening!

765

00:46:11,060 --> 00:46:13,060

They'll light each other.

766

00:46:13,060 --> 00:46:18,060

It's the launch of a lifetime.

767

00:46:18,060 --> 00:46:25,060

A spectacle not seen by man nor beast in 500 years.

768

00:46:25,060 --> 00:46:29,060

And every arrow but one took flight.

769

00:46:29,060 --> 00:46:33,060

The last one to take off is the first one to take off.

770

00:46:33,060 --> 00:46:37,060

The last one to take off is the first one to take off.

771

00:46:38,060 --> 00:46:45,060

That's a majest in 500 years, and every arrow but one took flight.

772

00:46:45,060 --> 00:46:47,060

That was fantastic.

773

00:46:47,060 --> 00:46:52,060

Just seeing all the rockets come out of the huacha once, beautiful thing.

774

00:46:52,060 --> 00:46:57,060

Seeing that would be terrifying. Absolutely terrifying.

775

00:47:00,060 --> 00:47:03,060

Oh, hey, look. That's the one that went short.

776

00:47:03,060 --> 00:47:05,020

Some enough sight, side on.

777

00:47:05,020 --> 00:47:07,060

Half a dozen arrows drop short,

778

00:47:07,060 --> 00:47:08,820

and the army's still upright.

779

00:47:08,820 --> 00:47:11,400

But this myth is far from busted.

780

00:47:12,660 --> 00:47:14,500

Well, the army's still standing.

781

00:47:14,500 --> 00:47:15,340

Yeah, you know what?

782

00:47:15,340 --> 00:47:17,860

There's not a lot of arrows in this area.

783

00:47:17,860 --> 00:47:18,700

Where'd they go?

784

00:47:18,700 --> 00:47:21,500

I don't know, they're around here somewhere.

785

00:47:21,500 --> 00:47:23,620

They've all grouped right over here.

786

00:47:23,620 --> 00:47:25,980

Oh wow, that's a great grouping actually.

787

00:47:25,980 --> 00:47:28,820

That's incredible, like they were pretty consistent.

788

00:47:28,820 --> 00:47:30,380

Oh, they're definitely army over here.

789

00:47:30,380 --> 00:47:31,620

We only had 50 soldiers.

790

00:47:31,620 --> 00:47:36,620

Imagine if we had like 3,000, 30,000, 300,000.

791

00:47:37,460 --> 00:47:41,820

Carries right, the troops wouldn't be so few or so scattered.

792

00:47:41,820 --> 00:47:44,940

So this rocket attack would be devastating.

793

00:47:44,940 --> 00:47:45,780

Yeah!

794

00:47:46,660 --> 00:47:49,340

All right, so, watch out, confirmed?

795

00:47:49,340 --> 00:47:52,420

Confirmed, they all left and they exploded.

796

00:47:52,420 --> 00:47:54,100

Absolutely confirmed.

797

00:47:54,100 --> 00:47:54,940

All right.

798

00:47:54,940 --> 00:47:56,300

That was a good one, man.

799

00:48:02,620 --> 00:48:04,780

The watch out worked on many levels,

800

00:48:04,780 --> 00:48:07,260

but most of all, it was frightening.

801

00:48:07,260 --> 00:48:11,420

All of those arrows flying into the air on fire and exploding

802

00:48:11,420 --> 00:48:14,580

would definitely make me turn around and run.

803

00:48:16,580 --> 00:48:17,700

That was a success.

804

00:48:17,700 --> 00:48:20,260

I mean, we got all the arrows to fire off except for one,

805

00:48:20,260 --> 00:48:22,540

and they all went the distance and they all exploded.

806

00:48:22,540 --> 00:48:24,460

Okay, maybe we didn't take out the army.

807

00:48:24,460 --> 00:48:25,980

That's just because our aim was off.

808

00:48:25,980 --> 00:48:27,740

But if we had been aimed right,

809

00:48:27,740 --> 00:48:29,740

we would have killed this army.

810

00:48:29,780 --> 00:48:32,740

We knew it existed, but no one knew for sure

811

00:48:32,740 --> 00:48:35,300

what the watch out was capable of.

812

00:48:35,300 --> 00:48:37,260

And now we do.