Science helps people ride a bike the right way

By Christopher Ingraham, Washington Post

About 94 percent of American adults know how to ride a bike, according to an August 2013 YouGov survey. Once you learn how to ride one, you probably never forget (thanks, muscle memory!). But most of us probably don't think too hard about how we actually ride a bike — how we hop on board and get our balance and start pedaling away.

If you were a professor of mechanical engineering, you might say that "the control strategies humans employ to balance a bicycle while riding are not well understood." That's the question that motivated Stephen Cain and his colleagues at the University of Michigan Ann-Arbor to figure out what separates novice bike riders — those folks you see wobbling uncomfortably down the street on a CitiBike — from the more skilled riders who go whizzing past them.

In a piece for the *Conversation*, Cain describes the experiment: "We conducted our experiments in a motion capture laboratory, where the riders rode a typical mountain bike on rollers." Think of rollers as a low-tech treadmill that you can put a bike on. "They require a bicycle rider to maintain balance by pedaling, steering and leaning, as one would outdoors," Cain writes.

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