

Episode Title: ATVs on Roadways

Summary: ATVs are designed for off-road use. “They’re not really all-terrain... so when they’re on roadways, both paved and unpaved, they can have a very unpredictable relationship with the roadway surface—one tire can grab and all of a sudden—boom, the ATV is rolling over.” Dr. Charles Jennissen is a pediatrician and emergency medicine physician who has been around ATVs for most of his life.

We talk with Dr. Jennissen in this episode about the way ATVs are designed and the risk involved with driving them on roads. He also provides recommendations for staying safe if you have to be on the road with an ATV for farm work.

Expert: Charles Jennissen

Episode Quote:

“This is seen many times by reports of people who actually observed people on roadways have a crash. Somebody says, “I don't know what they're doing. All of a sudden they just turned you know, briskly to the right like they're crazy people or something” you know, but it isn't that they're crazy— it's that the vehicle tires are grabbing the surface and all of a sudden it's turning quickly and rolling over.”

– Dr. Charles Jennissen, Pediatrician and Emergency Medicine Physician at the University of Iowa Hospitals and Clinics

Transcript**00:09 K Crawford**

Welcome to the *FarmSafe* Podcast brought to you by the Great Plains Center for Agricultural Health. In the blink of an eye, an injury can change your life and your farm forever. During each episode, workers in agriculture and public health share first-hand stories and real-life tips for making safer and healthier decisions while on the farm.

00:30 K Crawford

Today we hear from Dr. Charles Jennissen, pediatrician and emergency medicine physician. Dr. Jennissen works with injury prevention projects to decrease the number of injuries and deaths that occur each year. This is the first episode in our series on ATV safety, and we start with Dr. Jennissen sharing his own story about a fatal ATV injury

00:53 C Jennissen:

Hello, I'm Chuck Jennissen. I'm a clinical professor at the University of Iowa in the Departments of Pediatrics and Emergency Medicine. I grew up on a dairy farm in central Minnesota. We had ATVs on the farm. And so that's a big reason why I've been very interested in off-road injury prevention and safety.

One of the reasons I'm particularly interested in this area is that I had a first cousin who lived on a farm near us. He and another neighborhood boy were on an ATV and drove out of their farmyard onto a public road, and they probably made a wider turn than they anticipated just because of the way ATVs are designed. They ended up driving right into the public road and a pickup truck hit them— almost immediately as they went on to the road. And both of them died at the scene. Obviously, that was a terrible thing for my uncle and aunt's family and for the whole community. One thing that was really striking was that poor driver of the pickup truck he became an alcoholic. He became divorced from his family. I'm not saying that the crash was the only cause of that, but it certainly had a huge impact, I think, and may have been even the main cause of what all that transpired. And so, these things can be tragic for not only, you know, the families who lose their loved ones, but also other people involved with it.

02:36 C Jennissen

So, this happens, you know, where in the farms, growing up on a dairy farm I saw all too often where there were injuries that could have been prevented. And so, as a pediatrician and emergency medicine physician, it really had an impact on my thinking that if I

was really going to help save lives— just seeing them in the emergency department was not going to be the biggest factor. I really need to prevent these injuries from occurring and the deaths related to them, if I really wanted to save lives.

And so that's a reason why most of my career I've been involved with research and injury prevention projects and trying to decrease the number of injuries and deaths that occur because you know that's the number one killer of people under 45 years of age.

03:21 K Crawford

I asked Dr. Jennissen about risk factors for ATV injuries— to find out about what activities and behaviors may increase the likelihood of getting hurt when using an ATV. In this episode, he explains how ATVs are designed for off-road use and the risk involved with driving ATVs on public roadways.

03:40 C Jennissen

ATVs are designed for off road use. That's what they're designed for. They're not really all terrain. So, roadways is not included in their "all terrain."

They have a fairly narrow track and a fairly high center of gravity. And that makes them much more likely to roll over. So that's a big factor, but also, they have off road vehicle tires so roadway tires are, have fairly shallow treads, they're designed to continually grip and release the roadway surface. While ATV tires have knobby tires, deep kind of tread, they're really designed to grab terrain and not really release them.

So, when they're on roadways, both paved and unpaved, they can have a very unpredictable relationship with the roadway surface— one tire can grab and all sudden, boom, the ATV is rolling over.

This is seen many times by reports of people who actually observed people on roadways have a crash. Somebody says, "I don't know what they're doing. All of a sudden they just turned you know, briskly to the right like they're crazy people or something" you know, but it isn't that they're crazy— it's that the vehicle tires are grabbing the surface and all of a sudden it's turning quickly and rolling over.

04:53 K Crawford

It's not just the tires on ATVs that cause problems on roadways. The differential is a set of gears that transmits engine power to the wheels, allowing them to run at different speeds when taking turns. The differential on an ATV is not the same as what you have in motor vehicles designed for roadways.

05:13 C Jennissen

Another big problem with ATVs is that they have a solid rear axle or fixed rear differential. On motor vehicles that are designed for roadways, there's a rear differential— the outside tires travel quicker than the inside tires when you're taking a curve or turning the vehicle. But ATVs can't do that. These vehicles— the tires are turning at the same speed and so you need a kind of a wider turning radius in able to make a turn or curve.

And so, when you're traveling on roads, you know the, especially the higher speeds that you might be traveling on a road, it's really easy to misjudge the speed you should be going. And just going too fast to be able to make that curve or turn, which causes either the person to roll the vehicle on the roadway or to go off into the ditch and then roll it over or hit something after they go off into the ditch.

And so, the thing about with roadway vehicle injuries and death is that almost all of them are single vehicle events on the roadways, of course being on the road, you're much more likely to be hit by another vehicle, and that's definitely a risk factor— being on roadways with ATVs, but in fact about two thirds of the deaths, and even a greater percentage of injuries on roadways—they're a single vehicle crash—the ATV is crashing all by itself without another vehicle being involved.

And so, this all has to do with the design of the vehicle and not so much about another vehicle being on the roadways that they crash into.

And so, this is a big risk factor being on roadways. You know, over 60% of the deaths in ATVs overall are on roadways. You know, this is a vehicle is not designed even to be there.

06:53 K Crawford

Here in Iowa, ATVs are allowed on public roads if being used for agricultural work. Dr. Jennissen went on to recommend how to be more safe if you have to be on the road for farm work.

07:06 C Jennissen

In Iowa, we do have the ability to drive on a lot of roads, if you're doing agricultural work. There are some rules related to that. So, you have to be doing valid agricultural work, but it has to be done between sunrise and sunset. You have to have a valid driver's license, so that means you really need to be 16 years and older and have a driver's license and you also have to be traveling 35 miles per hour or less. So those are all requirements when you're doing occupational driving on the roads.

But, of course, the biggest thing is if you don't really have to be on the road, don't go on the road, you know, avoid it if at all possible.

07:44 K Crawford

For listeners outside of Iowa, check your state's rules for using ATVs on roadways, particularly age requirements for agricultural work.

07:52 C Jennissen

If you are on an ATV, you really should have a fluorescent orange flag to make yourself more visible. And also, I often tell families, you know, if you're buying a vehicle don't buy a camouflage colored or green color, you know vehicle. Buy something that's going to be more noticeable if you have to be on the roads. So, getting something that's yellow or orange is going to be much more visible to traffic and might prevent your, or one of your loved ones' deaths, doing agricultural driving on the road with an ATV. I think those are all really good ideas for people but obviously stay off the road if you don't have to.

More and more counties in Iowa are actually opening roads up for recreational use. I personally, as growing up on a farm I don't see this a very good thing. As a farmer you can already use the roads for doing agricultural work. But if other people can drive on the roads, you know, recreationally— you know it's boring to go on a road so if you have a nice woods, or your farmland, that's a little more interesting to drive on so they're going to be driving potentially on your property.

We know that driving on the roads is unsafe the vehicles are not designed that the manufacturers of the vehicle have, you know, strongly stated that these vehicles are not intended to be on public roads.

09:17 K Crawford

Since we know that ATVs are not designed to be on roads and that there's an increased risk of injury when ATVs are driven on roadways, Dr. Jennissen wants you to know that you can help talk rule makers if they are considering opening up your local roads to allow ATV riding.

09:32 C Jennissen

I would encourage all farmers out there— if your county is thinking about passing legislation allowing recreational use of ATVs on your roads, I would encourage you to tell your city council if it's a town or your county supervisors that you don't really want this ordinance to be passed.

09:52 K Crawford

If you're interested in learning more about ATVs on roadways, check out the resources Dr. Jennissen has provided which can be found in the episode notes and on our website. There are also a number of links to ATV safety resources including the University of Iowa Stead Family Children's Hospital ATV Safety Page, the Consumer Production Safety Commission's ATV Safety Information Center, the National 4H ATV Safety Leader's Guide, and many more.

In our next episode, we continue talking to Dr. Jennissen about ATV Safety and the conversation will focus on young ATV riders, ATV size, and why having passengers increases your risk of injury.

10:35 C Jennissen

Listen in on the *FarmSafe* podcast to join in on the conversation about keeping safe on the farm.

10:42 K Crawford

Also, let us know if there are any topics that you want to hear about on the air. You can visit our website at gpcah.org or email us.

Original music for the *FarmSafe* podcast was written and performed by Ben Schmidt.

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Episode Resources

- [University of Iowa Stead Family Children's Hospital ATV Safety](#)
- [ATV Safety Institute](#)
- [Check your state's ATV laws here](#)

Photo

