

## Let's Talk Fleet Risk - Episode 20

**Dr. Lisa Dorn**

**Simon:** Welcome to Let's Talk Fleet Risk – a podcast for those who manage drivers and their vehicles, and want to reduce road risk in their organisation.

Welcome to Let's Talk Fleet Risk, and my guest this week is someone who many of you may have seen speak at fleet management and driver safety events in the past. She's an expert in the field of driver behaviour and it's Dr Lisa Dorn.

Welcome to the podcast Lisa.

**Lisa:** Thank you. Thank you for inviting me.

**Simon:** So, Lisa, you're an Associate Professor of Driving Behaviour and Director of the Driving Research Group at Cranfield University. You previously founded companies like DriverMetrics, you were co-founder of The Flow. But you've now founded a new company called PsyDrive – all of which were to, kind of, commercialise some of the valuable research that you've done and make those learnings available to fleet operators. So, perhaps you could start by telling us a little bit about what you're working on at the moment.

**Lisa:** Sure. So, with Cranfield, some of the work I'm doing right now is looking at behavioural adaptation in response to autonomous vehicles. And so, we're running a series of studies in the field, looking at how people change their behaviour in response to automated systems over time. A lot of people think that driverless vehicles are going to be safer, but I think there are some things that we really need to understand a bit more about first.

So that's my work with Cranfield. And then, with PsyDrive I essentially developed an accredited CPD course on Human Factors in driving, which is available for fleet managers and anybody working in the fleet industry really, to help them understand a bit more about driver behaviour.

**Simon:** Excellent. Now, this episode of our podcast is part of a range of content we've created this quarter around the theme of fitness to drive – which obviously covers physical and mental health, fatigue, wellbeing etc. – and so I wanted to start with an overview of the general demands of driving for work on the driver. We're focusing generally on commercial vehicle drivers – so vans and trucks – and those drivers are probably doing reasonably high mileages across the year. So I was wondering if you could talk to us a little bit about what the general demands are for those of us who are largely office based and probably wouldn't be aware of the demands on a commercial vehicle driver out there all day.

**Lisa:** Yeah, and that's an important distinction, because a lot of people who are not driving for work really don't understand some of the problems of actually driving a truck or a van, and some of the demands that drivers have. Often professional drivers complain about how

the road users get in their way, and make things a bit more difficult for them because they don't really understand things like turning circles, just being able to get around a corner and how they need to be considerate of what a big truck needs. So, yeah, there are a lot of stresses on professional drivers – not only just the type of vehicle that they're driving, but also the nature of the work. What it is they have to do during the day. Some of the professional drivers have multi-drop kind of activities, others are long-haul, short-haul... it all varies. And they have to engage with customers and these are often quite stressful situations, especially if they're running late. Management, supervisory practices... and of course there are a lot of issues around the traffic, and having to get through traffic to a tight schedule.

**Simon:** So I guess the main pressures sort of revolve around workload and time pressure. I often describe these when I'm talking to fleet operators, or warn them against creating unrealistic work schedules where it often doesn't seem possible to make all of those deliveries, or all of those service visits within the expected time, without the driver having to speed or take other risks. So what does that kind of pressure... what sort of impact does that have on the drivers?

**Lisa:** Yeah. So, all drivers at some time or other will suffer from driver stress just because of the nature of driving these days. Traffic's actually moving slower every year, so there are just general demands of the task itself. The work involved in manoeuvring a vehicle is actually quite resource intensive. And so, it can be quite high on workload. For example, the road environment itself represents quite a high workload – for example, if there's poor visibility, or poor road markings or road surfaces. These are all things that professional drivers have to negotiate their way through, and it adds to the workload. And then, if they're on a difficult route, or they're having to perform difficult manoeuvres – perhaps having to park in very restricted areas... they also have a lot of different tasks to do at the same time. You know, thinking about work. And these kinds of situations mean that there are quite large fluctuations in the demands placed on professional drivers during the day.

So, the impact really can have a very negative impact on things like blood pressure and stress hormones – the research is... there are literally hundreds, if not thousands, of studies to show how driver stress can impact on these physiological measures.

**Simon:** Now, I know a lot of us talk to our delivery drivers when they turn up at home to gauge what kind of pressures they're under. And following on from that last point, not only is excessive workload and time pressure really hard for them to cope with at times, but then many of them have their routes planned down to the very last minute. And so, if they encounter roadworks or congestion – those unexpected delays and diversions can probably really compound that, can't they?

**Lisa:** Yes, that's right. Whenever driving is externally paced and not self-paced, it becomes a demand. So professional drivers, delivery drivers, they often have performance targets to achieve. And, you know, if they're being held up for whatever reason, then there are going to be impacts on the way in which they feel and how they tend to behave. So, for example, they'll tend to get more irritable, more frustrated, more aggressive. And really develop quite

an unpleasant, angry mood in some cases. And that can be quite difficult to deal with as another road user, when you see this quite hostile delivery van driver trying to get past you. And yeah, these are some of the everyday experiences that professional drivers have to go through I'm afraid.

**Simon:** Many drivers work odd hours, as well. Some of them have very long days, some of them are doing shift patterns, unsociable hours. And I know that one or two long days will do me in. Probably the same for most of us. So, how does that consistent, day-in day-out, long hours and unsociable hours – how does that impact on their general wellbeing?

**Lisa:** Yeah, there are very strong cumulative effects of fatigue, for example. The sort of, general wear-and-tear of doing this kind of job day-in, day-out, can have quite a terrible impact on their health. One of the first things that often goes when people are stressed is that they sleep quite badly – they can't relax when they get home after work, they can't switch off and have a good night's sleep. And then, of course, stress itself is fatiguing. Because you're operating the system at a very high spec, if you like. You're trying to cope with all of these demands and that's really quite fatiguing. So, yeah, there's a general impact on wellbeing, such that there can be some really negative impacts on health.

**Simon:** And, it can sort of feed on itself, can't it, then? Because if you're taking stress from work home, and that's causing you to sleep badly, you could have other areas where you're bringing the pressures of home to work. Cases like those who have got a new baby in the house, or maybe have got financial worries, or other things. You're bringing pressures to work, and the pressures of work are compounding it and going back home, and it just gets progressively worse.

**Lisa:** That's right, and recently I've been looking into Post Traumatic Stress Disorder, which sounds like it's a clinical condition that not many people have but, in fact, it mostly goes undiagnosed. And that's a classic case of the chronic exposure to stress that can build up.

Let's say, for example, you've had some very bad news at home, perhaps a close family member or friend has been diagnosed with a terminal illness or something of that nature. And then you have to go into this work environment where it's quite stressful. It's difficult because you're going to be distracted by what's going on at home and bring that into the work environment as a driver.

**Simon:** Yeah. I did a recent podcast on the increasing problem of drug driving, and how the police in many areas are now catching more drug drivers than alcohol. And actually, a lot of those turned out to be – in some cases, sort of half the offenders – turned out to be commercial vehicle drivers. So where we've got drivers experiencing these pressures, presumably quite a few of them are turning to drink and drugs as coping mechanisms for that stress. Which again, similar to the cycle of pressures building up between home and work, it's a further destructive downward spiral, isn't it?

**Lisa:** That's right, and yeah, obviously these rather unhealthy coping strategies that commercial drivers might turn to – it's sort of like a quick fix, if you like, to get you out of that state at that moment. You know, have a drink, have some kind of drug that would actually make you feel better. But, it is a destructive downward spiral because eventually, that will reduce your ability to actually handle stress in the long-term.

There are far better coping strategies that can be used to kind of offset the sedentary lifestyle nature of driving for work. Often we see that there are issues around diet and smoking as well as drugs and alcohol. So it's about opening up other kinds of coping strategies that are much more effective.

**Simon:** Yeah, you mentioned diet and sedentary lifestyle there. And obviously, being a van driver or a commercial vehicle driver, you're pretty much sat down for the vast majority of the day. Little exercise, unless you're a multi-drop driver then you might get a bit of exercise. But the diet thing is really bad, isn't it? And one of the things I've heard anecdotally, talking to our delivery drivers and others as well is dehydration, and the problem that can bring to the ability to make the right decisions. Because their work schedules are often so tightly controlled that they don't get time for a comfort break, so consequently, a lot of them won't drink enough water during the day because they haven't got the time to then stop for a break later on. So what kind of effect does that have on their ability to make the right decisions when they're on the road?

**Lisa:** Well these are some of the problems that are out there. And essentially, there's only so much that the driver can do. It really is down to the employer in many situations to make sure that these rest breaks are built in, and there is support for drivers if they want to pursue a more healthy lifestyle – perhaps access to a gym, or there's some kind of help with giving up on smoking, and eating better. There's all sorts that's actually possible.

Because, one of the things that we've talked about is how these coping strategies actually have a very poor impact on health in the long run. And it's not surprising that truck drivers in particular are known for having much higher risk of developing chronic diseases. And that in itself has an impact on crash risk.

**Simon:** Let's talk about crash risk, then. We've talked about a lot of the things that affect a driver's wellbeing. What do driver managers need to understand about the effect that all of these have on the long-term health and the likelihood of their drivers being involved in incidents?

**Lisa:** So, there's a kind of potentially immediate impact of some of the coping strategies that people used. So, if, for example, drivers took a brisk walk during a break, that would have a much stronger impact on their mood and their ability to perform at a higher level than just sitting around having a coffee, or a carb-high snack.

But if there's some support that employers can offer, then you've got the chance of being able to improve the immune system's ability to cope with diseases and problems that they can encounter. And we know, for example, that drivers with cardiovascular disease are twice as likely to have a crash and be at fault for that crash, compared with a healthier driver. And we know that there are several studies showing how people involved in crashes with chronic diseases are much more likely to see a fatal outcome. So, there are some very strong reasons why it's important to manage stress when driving for work.

**Simon:** Do you know why that is? Why there's that increase in risk if you've got a disease – is it people worrying about the disease? Is it symptoms while they're driving? What's causing it?

**Lisa:** It could be a number of things. Certainly, it could affect your ability to process information. If you have a cardiovascular disease, then your information processing capacity could be reduced which might affect your ability to check for hazards and respond appropriately. So, there are a number of reasons why that might be. It could be muscular-skeletal as well, it could be something to do with how well you're able to maneuver. A lot of issues for truck drivers I'm afraid is being slightly overweight – and that can impact on their ability to look around the cab, in the manner that they should before making their maneuver.

**Simon:** Okay, so let's come around to solutions, then. Now, you and I have met many times at safety conferences and the one thing that's always struck me when you've been speaking is the importance that you put on evidence-led interventions. So, what would your advice be to managers about how to identify and manage driver stress effectively?

**Lisa:** Well this is an interesting one, because one of the issues around stress when driving for work is that people generally don't say how they feel. For obvious reasons, because if they were to say to their manager, "I'm feeling really stressed, I didn't sleep last night, I'm really worried about this", they might not be able to work. And they need the work. It would just add to their stress if they were told that they have to go home and not work today. So, self-report for stress is not always reliable. So, I'm a big advocate of immunising the workforce, if you like, and making sure that everybody has some stress management strategies under their belt.

And that's not to say that it's all the driver's responsibility, because there are many organisational factors that can impact on driver stress. I think companies should do whatever they can do to reduce stress at the top-level down. But, from the driver's perspective, there are ways in which you can reduce distracted driving. And there is an evidence base around this. Essentially, what we're doing within PsyDrive is to deliver progressive relaxation techniques to improve driver anger and aggression.

Because what you're trying to get to is for drivers to adopt a more adaptive approach to driving, than a reactive one. Because if they're adapting to whatever comes their way, in a kind of accepting manner, rather than a rejecting one and reacting to whatever's going on around them – here you're going to see some of the behaviours that we've talked about –

you're going to see the irritability, the close-following, the speeding, and all the kinds of behaviours that tend to lead to crashes.

**Simon:** You mentioned there about obviously drivers not being forthcoming about stress, because they need the work and they might get sent home or whatever. But the employer's kind of treading a fine line as well, isn't it – between what they should do, which is taking more account of this and trying to put their drivers under less stress, or if a driver does come in with stress, they're able to say "we don't want you out on the road if you're feeling like that". They're working to such tight deadlines and thin margins, the employer probably feels like they can't do that anyway, and they don't actually want to know about the driver's stress because it causes them too much disruption with trying to make other arrangements for deliveries.

So any thoughts on how employers can make that decision a little bit easier for them, or not put them in such a difficult situation?

**Lisa:** Well, there are strong individual differences in how people respond to stress, and that's well known. It's essentially about how you appraise the stressful situation, and retraining the thought processes around that is essential if you're going to get people to be a bit more hardy. But from a management perspective, as I say, the best thing really is for everybody to have some form of stress management training, because it's not going to do anyone any harm. It's going to do an awful lot of good especially for certain people.

We know that there's a subset of the workforce that are much more likely to be involved in crashes than others. And it could be that just by changing the way that they approach the problem of the demand on them as a driver, it could actually make all the difference. And also help drivers to talk about some of the things that are going on in their own lives. And how that can be resolved. Sometimes, just talking about it is very helpful.

**Simon:** Yeah, I want to ask you a final question, which is possible a little bit linked to what you said you were working on at the moment with Cranfield, looking into driver behaviour linked to autonomous vehicles and all of that. I know that's some way in the future, but, in the intervening period we've got increasing levels of active drive safety technology, we've got various bits of technology on electric vehicles, obviously there's an increasing number of electric vans on the road. And many of them have got a lot of this safety technology on there. Are there any considerations for driver managers about how those drivers adapt to all this new technology and the new driving style needed for an electric van – it's obviously got different driving characteristics. Are there any things driver managers need to be aware of from a training... or how the driver feels comfortable with that technology?

**Lisa:** Well, yes, I think there's an awful lot more that needs to be considered here, because in my experience... employers will often procure vehicles because the manufacturer is trying to sell the latest spec, but actually it's a question of how people respond to that technology. And there's an awful lot of evidence coming through around how reaction times might change, or behaviour might adapt in such a way that actually the safety benefits that they claim can't be found. We're currently looking at some of the claims that manufacturers are making about things like ESC or AC, adaptive cruise control. And we are seeing that these crashes that they're supposed to be saving, is not actually possible really, because every

system is claiming to reduce crashes by 50% and if that was the case we'd be having minus thousands of crashes every year.

**Simon:** Yeah, there's a lot of work to do on that, making sure people understand the technology. The vast majority of drivers I've talked to don't know what half of this technology is or does. So a lot of education still needs to be done on that.

Lisa, thank you so much for sharing your insight with us. Where can people go to find out more about you and your work?

**Lisa:** [PsyDriveGroup.co.uk](http://PsyDriveGroup.co.uk)

**Simon:** Fantastic, okay, we'll put a link to that in the show notes for this episode. Thanks very much, really appreciate your time.

**Lisa:** You too, thanks very much.

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**Simon:** If you manage drivers and their vehicles, and you face similar issues to those discussed in this podcast, there are links in the show notes to some useful resources on the Driving for Better Business website. And these are all free to access. If you enjoyed the conversation, please don't forget to hit subscribe - so you know when the next episode is released. And please also give us a 5-star review, as this helps us to get up the podcast rankings, and makes it more visible to others who might also find it useful. You can follow us – that's Driving for Better Business on Twitter, Facebook and LinkedIn. And most importantly, please help us to spread the word. All our resources are free for those who manage fleets and their employees who drive for work. Thank you for listening to Let's Talk Fleet Risk, and I look forward to welcoming you to the next episode.