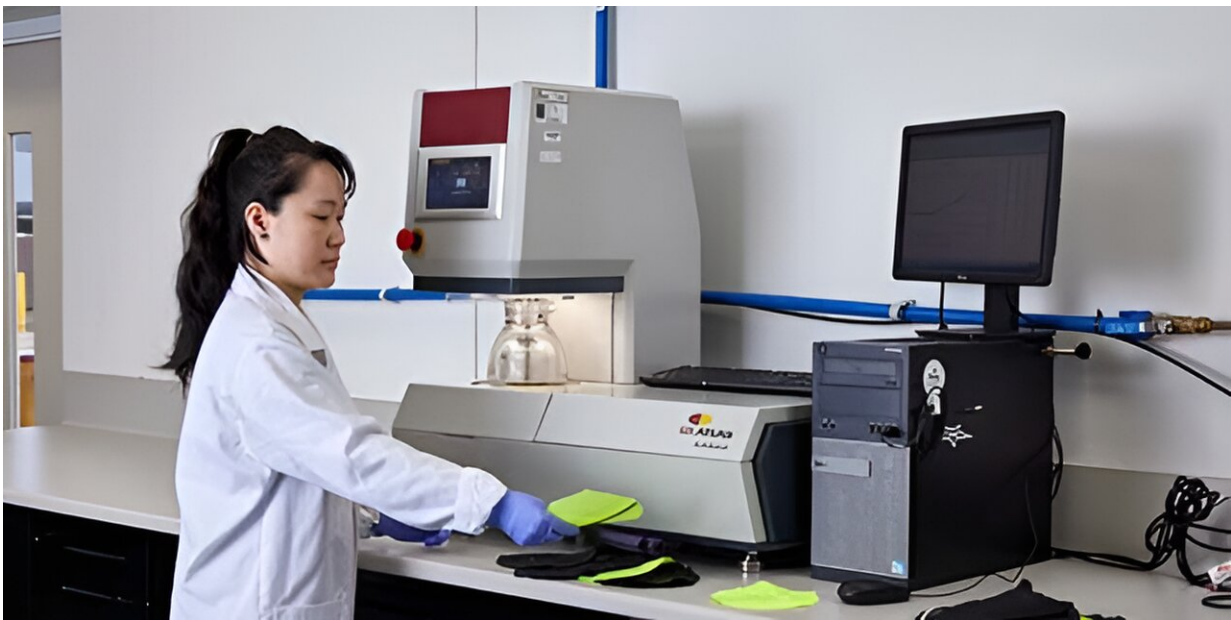


How safe is women's motorcycle gear? Textile experts put it to the test

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Deakin textile experts putting fabrics to the test. Credit: Deakin University

In 2021–22, [24% of people seriously injured on Australian roads](#) and requiring hospitalization were motorcyclists.

There is strong evidence to suggest wearing protective motorcycle gear can significantly reduce injuries in the event of an accident.

The massive levels of variation in protection of motorcycle clothing sold

in Australia make choosing the right riding gear fraught with danger.

New research by Deakin University textiles experts reveals a popular gear choice for female motorcyclists—leggings and jeggings—offers dangerously low levels of protection. The rigorous scientific testing was conducted by the Motorcycle Assessment Clothing Program (MotoCAP) based in Deakin's Institute for Frontier for Materials.

Deakin's textile experts at MotoCAP tested 10 different brands of women's motorcycle leggings and jeggings sold in Australia. They found 7 out of 10 brands scored only half a star for protection.

Poor abrasion resistance

Abrasion injuries are one of the most common in a motorcycle accident with scrapes, cuts, and grazes of all shapes and sizes.

Eight of the 10 protective leggings and jeggings tested scored poorly in abrasion resistance.

This means the leggings are wearing through before you've finished sliding after an accident and your skin is at risk of being shredded by the road.

Additionally, in the brands that used higher resistance materials, the protective fabrics didn't cover all the high-risk abrasion areas such as knees, sides of the legs and backside.

Substandard seams and burst resistance

Seam strength can be the only thing standing between you and potentially life-threatening injuries during a motorcycle accident if your gear's burst

resistance isn't up to scratch.

The Deakin researchers' tests revealed that the seam strength and burst resistance of eight of the women's protective leggings and jeggings evaluated were either marginal or poor.

Flimsy fabrics and inappropriate seam selection contribute to the likelihood of bursting on impact and leaving you exposed to the road surface.

Inadequate impact protection

When you hit the ground, one of the first areas to bear the brunt on impact can often be the hips or knees, making impact protection in your safety gear critical.

Seven out of 10 women's motorcycle protective leggings and jeggings tested by MotoCAP scored poorly on impact protection, with these brands offering no hip or knee impact protection whatsoever.

Impact injuries on the lower extremities can be a serious matter. Without the right protection, they can result in [broken bones](#), complex injuries, extensive and painful recoveries, limited mobility, and soft tissue damage.

How to have a safer ride

The variation in protection levels in motorcycle clothing means that riders are unknowingly choosing style over safety and are forced to rely on marketing spin and online reviews to make their purchase decisions.

Choosing high quality protective riding gear and dodging the poor

performers involves digging deeper into the types of materials, seam quality and impact protection levels in each garment.

MotoCAP conducts independent scientific testing of gear sold in Australia and New Zealand to provide consumers with star ratings on the performance of motorcycle jackets, pants and gloves.

"We recommend wearing at least two -star plus garments for city riding, and three-star plus garments for open road riding to help reduce the risk of injuries in the event of an accident," says Associate Professor Christopher Hurren, who is the Chief Scientist for the MotoCAP program.

All the gear, all the time

Finding the perfect motorcycle protective gear can be challenging and confusing.

A keen motorcyclist himself, Associate Professor Hurren says it can be tempting to forget the gear entirely, especially if you know it doesn't offer protection.

"If you've gone onto the MotoCAP website and found out your gear isn't protective, don't stop wearing it. Any gear, even if it is low performing, is better than riding in no gear," he says.

"Good protection levels can often be found with a leather jacket, protective denim jeans, long cuff gloves, riding boots and a helmet.

Want to choose the right [motorcycle gear](#) for your ride? Compare breathability and safety ratings with the free, independent [MotoCAP site](#)

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Provided by Deakin University

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