

FEMA Report: Why Are Cable Barriers Still Hurting Motorcyclists?

- [Blogs](#)

March 28, 2023



Cable barriers are banned in some countries, while others still install them, despite the inherent risks for motorcyclists.

The main problem with cable barriers – or wire rope fences – are the uprights; in the event of a motorcyclist's fall, these uprights will catch the motorcyclist, with all its horrible consequences. This is no different from other crash barrier variants. One difference is that a motorcyclist who is still on his bike and hits the cable barrier will be led to the uprights, where a standard guardrail has no protruding parts.

The argument that cable barriers are a good solution for roads where there is not enough space in the side or central reservation for a 'normal' crash barrier (preferably with motorcyclist protection) is not valid in FEMA's opinion. A fallacy in road design should not be 'corrected' with a solution that could be extremely harmful to a specific group of road users, like motorcyclists.



Photograph courtesy of SMC Sweden.

In Sweden, where the cable barrier has been used on a large scale, authorities are slowly coming to the realization that it is not the best solution. Not because of the potential danger to motorcyclists, but because of the (too) high costs for repairs and replacement. Unlike regular crash barriers, it is not possible to quickly replace a damaged part. Additional problems with cable barriers: it is not possible to realize a simple passage for emergency vehicles and it is not possible to provide cable barriers with motorcyclist protection.

We are aware of the subjective nature of many of the opinions about cable barriers, but a subjective feeling of insecurity is also important in traffic. Anyone who continues to point out the lack of data that shows the unsafety for motorcyclists would be better off investing their energy in the (further) development of infrastructure that is also safe for motorcyclists.

How road restraint systems should be improved

- Road restraint systems, of whatever type, should only be installed where there is a real risk for a collision with an object or oncoming traffic and no other solution – like removing the objects – is possible.
- New, safe, types of barriers need to be developed after extensive research of collisions of powered two-wheelers (PTWs) with barriers. New standards for roadside and median barriers should be adopted to make them less dangerous for motorcyclists. The existing Technical Specification CEN/TS 17342:2019-10 should be further developed and turned into an EN standard.
- New standards must include protection against hitting unprotected posts and top-side protection for PTW-riders. Discontinuous protection of posts only improves the safety of PTW-riders when the collision speed is very low. Therefore, only continuous protection of the posts should be allowed.
- No new cable barriers (i.e., wire rope fences) or other barriers with unprotected posts should be installed. When old unsafe barriers need to be replaced, they must be replaced by a safer barrier type.
- Whenever a barrier is installed, the distance from the road should be as large as possible to allow for evasive manoeuvres and maximum emergency braking in the event of a collision which might reduce the force of the collision impact with the barrier.
- Existing barriers in outer curves or other locations with heightened risk must be retrofitted with Motorcycle Protection Systems (MPS).
- Introduce a common European classification system for crash barriers, based on vulnerable road users (VRU) collision friendly features.

Source: [FEMA/FIM Europe position papers](#).