

## Slow Italian, Fast Learning

Ep.386: How to avoid the dangers of battery fires

Italian	English
<p>Emma Sutcliffe è la direttrice di EV FireSafe, una società finanziata dal Dipartimento australiano della Difesa per la ricerca sugli incendi delle batterie dei veicoli elettrici e sulle risposte alle emergenze.</p> <p>È lei a sostenere che dal 2010 in Australia si sono verificati 11 incendi di auto elettriche ricaricabili regolarmente immatricolate.</p> <p>Tuttavia, nell'ultimo periodo si è registrato un aumento significativo degli incendi delle batterie agli ioni di litio, comprese quelle di piccole dimensioni.</p> <p>Sutcliffe ha dichiarato che a Perth, nel mese di luglio, quattro case sono state distrutte da un incendio nel giro di 48 ore.</p> <p><b>"Lithium-ion battery fire is known as thermal runaway and in an electric car you may have hundreds or even thousands of separate lithium-ion battery cells. When ne of those gets damaged, it short circuits and it releases a toxic flammable gas, and that gas ignites and then the heat spreads to the next cell and that cell bursts open and off-gases and ignites, and then that spreads to the next cell."</b></p> <p>Per Sutcliffe la reazione a catena è molto difficile da fermare.</p> <p><b>"And once thermal runaway starts, it's very difficult to bring it under control or to stop it. So this is the challenge for firefighters - we can't really stop them or runaway in an electric vehicle very efficiently."</b></p> <p>Il pericolo di incendio più frequente causato dai veicoli elettrici, sempre secondo la</p>	<p>Emma Sutcliffe is the Director of EV FireSafe, a company funded by the Australian Department of Defence to research electric vehicle EV battery fires and emergency responses.</p> <p>She says nationally since 2010 there have been 11 road-registered plug-in electric car fires in Australia.</p> <p>But there has been a significant rise in fires related to lithium-ion batteries, including small lithium-ion batteries.</p> <p>Ms Sutcliffe says more recently in Perth, four homes were burnt down in the space of 48 hours in July.</p> <p><b>"Lithium-ion battery fire is known as thermal runaway and in an electric car you may have hundreds or even thousands of separate lithium-ion battery cells. When ne of those gets damaged, it short circuits and it releases a toxic flammable gas, and that gas ignites and then the heat spreads to the next cell and that cell bursts open and off-gases and ignites, and then that spreads to the next cell."</b></p> <p>She says that chain reaction is very hard to stop.</p> <p><b>"And once thermal runaway starts, it's very difficult to bring it under control or to stop it. So this is the challenge for firefighters - we can't really stop them or runaway in an electric vehicle very efficiently."</b></p> <p>Ms Sutcliffe says the most frequent fire danger from electric vehicles lies with e-bikes and e-</p>



<p>Sutcliffe, riguarda le biciclette elettriche e gli scooter elettrici, dato che almeno uno ogni due giorni prende fuoco in Australia.</p> <p><b>"This is because they're often made with poor quality battery cells. There's not a lot of regulation around how those products are built or sold. They take a lot of wear and tear in daily use. And the other challenge is that people bring their e-bike or their e-scooter into their home at the end of the day when they've come home from work or school and they plug it in their lounge room."</b></p> <p>Quando gli incendi scoppiano nelle case, le conseguenze sono letali, a detta di Sutcliffe.</p> <p><b>"We've had five fatalities here in Australia from e-bike and e-scooter battery fires, and we are losing homes on a scarily regular basis. In fact, in Perth in July, there were four homes lost to e-bike and e scooter battery fires just in the space of 48 hours."</b></p> <p>A livello globale, in un periodo di 18 mesi tra il 2022 e il 2023, quattro famiglie sono state uccise da dispositivi di mobilità personale che hanno preso fuoco nelle loro case.</p> <p>Gli esperti affermano che le persone non si rendono conto che i requisiti di sicurezza di questi dispositivi sono piuttosto bassi rispetto ai veicoli elettrici e alle batterie domestiche.</p> <p>Ogni giorno, a livello nazionale, prendono fuoco oggetti più piccoli come sigarette elettroniche, utensili elettrici e power bank.</p> <p><b>"Now if your battery pack is looking swollen, if it's unexpectedly hot to touch, so you haven't been charging it or using it, but it feels really hot to touch or if it smells funny, they're some of the early warning signs that that battery may have an issue."</b></p>	<p>scooters, which are known to catch fire nationally at least every two days.</p> <p><b>"This is because they're often made with poor quality battery cells. There's not a lot of regulation around how those products are built or sold. They take a lot of wear and tear in daily use. And the other challenge is that people bring their e-bike or their e-scooter into their home at the end of the day when they've come home from work or school and they plug it in their lounge room."</b></p> <p>She says when the fires start in people's homes, the consequences are lethal.</p> <p><b>"We've had five fatalities here in Australia from e-bike and e-scooter battery fires, and we are losing homes on a scarily regular basis. In fact, in Perth in July, there were four homes lost to e-bike and e scooter battery fires just in the space of 48 hours."</b></p> <p>Globally over an 18 month period in 2022 to 2023, four entire families were killed by personal mobility devices PMDs that caught fire in their homes.</p> <p>The experts say people don't realise that PMD safety requirements are pretty low compared to EVs and home batteries.</p> <p>Smaller items like vapes, power tools and power banks catch fire nationally daily.</p> <p><b>"Now if your battery pack is looking swollen, if it's unexpectedly hot to touch, so you haven't been charging it or using it, but it feels really hot to touch or if it smells funny, they're some of the early warning signs that that battery may have an issue."</b></p>
--	---



<p>Gareth Morgan è il direttore di EV Fire Protection.</p> <p>L'azienda ha sviluppato il primo sistema al mondo di estinzione incendi sotto i veicoli elettrici.</p> <p>Morgan ha dichiarato a SBS News che è difficile fare affidamento sulle statistiche relative agli incendi dei veicoli elettrici.</p> <p><b>"The statistics are very difficult to rely on, and that is because the data that's being captured around the world for electric vehicle fires and the difference of fires where those fires originate from, whether they're just a vehicle fire or a traction battery fire, that data's not actually being captured. So it's a very, very gray area."</b></p> <p>Sempre Morgan condivide l'opinione della Sutcliffe che è raro che si verifichi un incendio alla batteria di un veicolo.</p> <p><b>"One of the big challenges that fire brigades certainly around Australia and around the rest of the world, are having on a daily basis, they are attending fires associated with micro mobility devices like scooters and skateboards and like a lot of that is a result of poor manufacturing."</b></p>	<p>Gareth Morgan is the Director at EV Fire Protection.</p> <p>They developed the World's First Electric Under Vehicle Fire Suppression System.</p> <p>He tells SBS News it's tricky to rely on statistics of electric vehicle fires.</p> <p><b>"The statistics are very difficult to rely on, and that is because the data that's being captured around the world for electric vehicle fires and the difference of fires where those fires originate from, whether they're just a vehicle fire or a traction battery fire, that data's not actually being captured. So it's a very, very gray area."</b></p> <p>He echoes similar sentiment as Ms Sutcliffe, saying it's infrequent to get a vehicle battery fire.</p> <p><b>"One of the big challenges that fire brigades certainly around Australia and around the rest of the world, are having on a daily basis, they are attending fires associated with micro mobility devices like scooters and skateboards and like a lot of that is a result of poor manufacturing."</b></p>
---	--

Report by Haylena Krishnamoorthy for SBS News.

Find more episodes of **Slow Italian, Fast Learning** using your favourite podcast app or at [sbs.com.au/language/italian/podcast/slow-italiano-fast-learning](https://sbs.com.au/language/italian/podcast/slow-italiano-fast-learning)

Listen to SBS Italian every day from 8am - 10am on radio, TV or at [sbs.com.au/italian](https://sbs.com.au/italian)

Follow us on Facebook at [facebook.com/sbsitalian/](https://facebook.com/sbsitalian/)