

Battery Safety

[Vape batteries](#) are not like your remote-control AAs: they are much more powerful cells that need to be handled carefully. Make sure that the customer understands the Do's and Don'ts of batteries be it internal, external or mech before selling batteries to the customer. Battery safety is a vital part of vaping and we must be knowledgeable in all aspects of batteries.

Keep wraps intact

Always make sure that the wraps of your batteries are in pristine condition. If you notice a nick on the battery wrap, the safe thing to do is to re-wrap it. Battery wraps are cheap and very easy to put on. If you don't have wraps, visit your local vape shop. Most shops will wrap your batteries for free and it won't take more than a couple of minutes to do.



Know When Your Batteries are DONE!



Use the right batteries

Some batteries are better for low wattage vaping, others are better for sub-ohming, and others are not supposed to be used for vaping at all. When picking batteries for your mod, make sure that they come in the appropriate specs. Don't just read the numbers on the wraps, as those are often misleading.



Use battery cases

Never throw batteries in pockets or bags when not in use. Get yourself some cheap plastic battery cases instead, as unprotected batteries might short circuit when they come in contact with metal objects. This may cause your battery to vent and potentially explode.



Watch out for counterfeits

Counterfeit batteries are unfortunately a thing, with the big three (Sony, Samsung, Panasonic) being the most commonly counterfeited brands due to their higher price tag. Always buy batteries from reputable vendors, as those will go out of their way to make sure their batteries are originals.

Don't leave your batteries charging unattended

Even when using a charger, having your batteries charging unattended is never a good idea, especially overnight. Although very rare, battery chargers are electronic devices and failures are not unheard of. Always keep an eye on your charging batteries and place them in battery cases when you are not around.

Use a dedicated charger

Charging your batteries directly in your mod is possible with most devices nowadays, but it's always safer to use a dedicated [battery charger](#). Never use a fast charger on your device like a cell phone charger, it can ruin the batteries and can also void the warranty. A simple charger can cost less than a 60 mL bottle of e-juice! Stepping up a bit in price will add features such as battery data and health monitoring.



Don't over-drain your batteries

If possible, try to not completely drain your batteries — lithium-ion batteries tend to lose more capacity the further you let them discharge. Most mods will come with some form of battery level indication. Taking your batteries out to charge before they are completely drained will prolong their life, i.e. the amount of cycles you will be able to get out of them.

Avoid extreme temperatures

Vape batteries can tolerate low and high temperatures, but you wouldn't want to test their limits. Higher temperatures will strain your batteries, making them age faster (or even vent), while colder temperatures take a toll on battery capacity. Make sure you store them in a cool place away from sunlight and never ever leave them stored in places like the glove compartment of your car where temperatures might even exceed their safety range. If you live in an area where the temperatures frequently get extreme, consider carrying your [vape device](#) and batteries in a small insulated lunch cooler.



Use married batteries

If you are using a mod that takes more than one battery, always use the exact same batteries (for example, a pair of Sony VTC5s) and keep them married, i.e. use them in pairs and always together — it's a safe practice. This will ensure that the cells get the same number of charges/discharges and help delay imbalances in capacity and performance.



Replace old batteries

Batteries are only good up to a certain amount of cycles (full charge to full discharge). Lithium-ion batteries will start losing capacity and strength when used extensively for longer periods of time. If you sense that your battery takes less time to discharge, just replace it. Even if you haven't noticed something out of the ordinary, replace your batteries after six months to a year, depending on how often you use them.

Recycle old batteries

When replacing old batteries, always recycle them instead of throwing them away. A lithium-ion cell can easily short-circuit in the trash can, which is a serious hazard risk. On top of that, recycling batteries is good for the environment. Keep an eye for battery disposal boxes and follow safety instructions when recycling your old batteries.

Batteries for Unregulated Mods

While an unregulated mod is not always mechanical, a [mechanical mod is always unregulated](#). This is because unregulated mods can have some simple circuitry (in the case of running multiple batteries, for example).

The one thing that all unregulated mods have in common (mech or otherwise), is a distinct lack of protective circuitry. You push a button to complete the circuit and your battery provides current to your atomizer. No voltage step-up or step-down. No cutoffs. No short-circuit protect. No over-discharge protection.

Here is a very short list of things that can go wrong with a mech mod:

- A short circuit (crossed leads, poor battery contact, misplaced or worn down insulators etc.) can cause your battery to vent and burst into flames
- Accidentally building too low of a resistance (0.1Ω) can cause your battery to vent and burst into flames
- Depleting your battery past its discharge cutoff and attempting to bring it to a full charge can cause it to vent and burst into flames
- Holding the firing button too long (or accidentally keeping it pressed in your pocket or bag) can cause your battery to vent and burst into flames

The point is: you shouldn't touch an unregulated device unless you know battery safety backwards and forwards.

But even if you double check every insulator 10 times a day, use an ohm reader every time you build a coil, only vape your batteries to half depletion, and develop OCD about locking your firing button, things can still go wrong.



To wrap this up

- Stick to batteries with manganese chemistries
- Pay close attention to amp limits and never exceed them
- Don't ignore the ratings on the battery
- Don't overcharge
- Don't overdischarge
- Always buy authentic batteries
- Don't charge your batteries in a series device
- Invest in a quality external charger
- Never leave your batteries out in the cold (or the heat)
- Don't put batteries in your pocket
- Invest in a battery case for safe transport
- Recycle damaged batteries
- Do not modify, disassemble, puncture, cut, crush or incinerate
- Do not use if damaged in any way
- Do not use if wrapper is or insulator is damaged or torn
- Do not use if top and bottom is dented in any way