



An Extended Guide · No. 1676

Signs a Battery Is Failing (and When to Replace)

How to tell it's on the way out

Tech Made Simple — Service Made Personal

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! Read this first — a few battery-safety basics

A battery stores a lot of energy in a small package, so a few plain habits keep everyone safe — no matter the chemistry. Charge with the charger made for that exact battery, on a hard, non-flammable surface, and never charge one that is swollen, cracked, leaking, hot, or wet. Keep batteries away from open flame, sparks, and high heat, and give a lead-acid battery plenty of fresh air while it charges, because it can give off explosive hydrogen gas. Never puncture, crush, short the two terminals together, or throw a battery in a fire. Around lead-acid batteries wear eye protection — the acid inside can burn skin and eyes. And when any battery finally wears out, it does not belong in the household trash: batteries are recycled at the right drop-off, never thrown away. The reassuring part is that the LiFePO₄ chemistry — also written LFP — inside most of today's power stations and backup batteries is one of the safest and most stable there is. This guide is about spotting a battery on its way out, and one sign means act right away: a lithium battery that looks puffy or bulged is swelling, which is a stop-now safety issue — don't use it or charge it.

How to tell a battery is on the way out

Every battery wears out eventually. The good news is that a tired battery almost always tells you, if you know the signs to watch for.

I'm Bill, and I run Bill's Home Tech here in Portage County, Ohio. A very common call I get starts with 'something's not right with my battery.' Usually it's nothing scary — just a battery getting old and asking to be replaced. Now and then it's a sign to stop and be careful, and I'll be clear about which is which.

This guide walks through the warning signs one at a time, in plain language, so you can tell an ordinary tired battery from one that needs attention now. There's no need to worry as you read — most of what's here is simply about knowing when it's time for a fresh one.

★ When in doubt, let's just check

You never have to figure this out alone or guess. If something seems off, call or text me at (330) 200-8042 and we'll take a calm, honest look together.

The warning signs, on one page

Here's the whole list at a glance. The first three are the everyday 'it's getting old' signs; the rest mean stop and be careful.

- ❑ It won't hold a charge, or runs down much faster than it used to.
- ❑ You get noticeably shorter runtime than when it was new.
- ❑ It won't reach a full charge, or a lead-acid battery reads low even after charging.
- ❑ It's swelling or bulging — for a lithium battery, that's a stop-now safety sign.
- ❑ It's leaking, cracked, or heavily corroded (lead-acid).
- ❑ It gets hot during charging or use.
- ❑ A warning light, beep, or app message flags a fault.
- ❑ It's simply old — many years in — and it's time to plan a replacement.

✓ Most of these just mean 'time for a new one'

Only a few — swelling, leaking, or running hot — call for stopping right away. The rest are the ordinary signs of a battery reaching the end of a good, long life.

Wearing out is normal — not a failure on your part

Before the warning signs, the most reassuring fact of all: every battery fades, and it's nobody's fault.

All batteries lose a little of their capacity as they're used and as they age. That slow fade is normal and expected — it isn't a defect, and it usually doesn't mean you did anything wrong. Good care slows it down, but no battery lasts forever, and that's simply how they work.

So when you notice a battery isn't what it used to be, the right feeling isn't alarm — it's 'ah, this one's getting on in years.' The point of this guide is to help you notice the difference between that ordinary aging and the handful of signs that mean set it aside safely.

✓ **Fade is expected; sudden changes are worth a look**

A battery slowly giving a little less over years is normal. A battery that changes suddenly — swells, gets hot, or drops off a cliff — is the one worth paying closer attention to.

Sign 1: it won't hold a charge

The classic sign of a tired battery is that it fills up but empties again far too soon.

You charge it fully, set it aside, and a day or two later it's already run down — or it drains under load much faster than it once did. That's a battery that can't store energy the way it used to, and it's one of the most common signs that it's wearing out.

A little of this is normal aging. A lot of it — a battery that goes flat quickly no matter what you do — usually means its useful life is ending. It's a good moment to test it, so you know for sure before you're counting on it.

✓ Rule out the simple stuff first

Before you blame the battery, make sure the charger and cables are good and the terminals are clean and tight. A loose or corroded connection can mimic a dying battery — see our terminals guide.

Sign 2: much shorter runtime than when new

If a battery used to get you through an evening and now barely makes it through dinner, it's telling you something.

Runtime is the honest, everyday measure of a battery's health. When the same battery running the same gear gives you noticeably less time than it did when new, its capacity has faded. A gradual slide over years is normal; a steep drop-off is a sign the end is near.

This is worth catching early, especially for a battery you rely on. It's far better to notice shrinking runtime on an ordinary day than to discover it in the middle of an outage. When you see it, test the battery and start planning.

★ Keep a rough sense of 'normal' for your battery

You don't need records — just a feel for how long yours usually lasts. That everyday sense is often the first thing to warn you a battery is slipping.

Sign 3: it won't reach a full charge

A battery that can't fill all the way up anymore is a battery that's losing its capacity.

Sometimes a fading battery won't charge all the way, or a charger finishes far sooner than it should. With a lead-acid battery, a telltale version is one that still reads low even after a full charge — it takes the charge but can't hold onto it.

Because lithium batteries hold a very steady voltage, a plain voltage reading is a poor gauge for them — trust the pack's own display or app instead, which reads the real state of charge through the BMS. Our testing guide explains how to check each kind properly.

✓ The charger isn't always the culprit

If a battery won't fill up, try a known-good charger first to rule it out. If it still won't reach full, the battery itself is the likely reason.

Sign 4: swelling or bulging

This is the one sign on the list to act on right away — calmly, but right away.

If a battery, a battery pack, or a device looks puffy, bulged, or like it's been inflated, that's swelling. In a lithium battery it means the cells inside are in trouble, and it's a stop-now safety issue: don't use it, don't charge it, and don't press on it or puncture it.

There's no need to panic — a swollen battery isn't a fire the moment you see it. Just treat it with respect. Set the device or battery somewhere safe, away from anything that can burn, and arrange to recycle it as damaged. We'll walk through those calm steps a few pages on.

! A swollen battery is a stop sign

Swollen, puffy, or bulging means stop: no using it, no charging it, no poking it. Move it somewhere safe away from flammables and plan to recycle it as a damaged battery. Our disposal guide explains how to hand it off.

Sign 5: leaking, cracks, or heavy corrosion

Visible damage to the case or heavy crust at the terminals means a battery is failing — and, with lead-acid, needs careful handling.

A cracked case, fluid leaking out, or a heavy build-up of corrosion is a clear sign a battery is at the end of its road. With lead-acid batteries this matters for safety too, because the fluid inside is acid that can burn skin and eyes.

- Don't touch leaking fluid or crusty corrosion with bare hands — wear gloves and eye protection.
- Keep the area ventilated, and keep sparks and flame away from lead-acid.
- Don't try to keep using a cracked or leaking battery — retire it.
- Plan to recycle it, and tell the recycler it's damaged so they can handle it right.

! Light corrosion is different from a leak

A little terminal crust can often be cleaned up — our terminals guide shows how. A cracked case or leaking fluid is another matter: that battery is done, and it's time to retire it safely.

Sign 6: getting hot during charge or use

A battery that's noticeably hot to the touch is telling you something isn't right.

A little warmth during hard use or charging can be normal. But a battery that gets genuinely hot — uncomfortable to hold, or much hotter than usual — is a warning sign. Stop charging or using it, unplug it safely, and let it cool somewhere away from anything flammable.

Sometimes heat comes from an outside cause you can fix — a loose or corroded connection, or a battery left in a hot spot. But heat paired with swelling, hissing, or an odd smell means the battery itself is in trouble and should be set aside and recycled, not used.

! Hot plus swollen or hissing means act now

If a battery is hot and also swelling, hissing, or smoking, get people away from it and don't touch it. For anything beyond the mildest case, get everyone out and call 911 — never try to fight a real battery fire yourself.

Sign 7: warning lights, beeps, and faults

Modern batteries and the devices they power often tell you outright when something's wrong — it pays to listen.

A power station or lithium pack may show a fault on its display or app, flag a low state of health, or refuse to charge because its BMS has stepped in to protect it. A UPS will beep or fail a self-test when its battery is worn. These messages are the battery doing you a favor.

Don't just silence a beeping UPS or dismiss a fault and move on. Look up what the message means in the manual, and take it seriously — it's often the earliest and clearest warning you'll get. A UPS battery in particular is meant to be replaced when it warns, then recycled.

✓ The BMS is on your side

When a lithium pack won't charge or shows a fault, its guardian is usually protecting it, not failing you. Our BMS guide explains what that little brain is watching for.

Sign 8: it's simply old

Sometimes there's no dramatic symptom at all — just a lot of years on the clock.

Age alone is a fair reason to plan a replacement. A battery that's given you many years of service has earned its retirement, and an old battery is more likely to let you down right when you need it — often on the coldest night or in the middle of an outage.

I won't put a number of years on it, because it depends so much on the battery and how it's been treated — that belongs to the maker and the warranty. But if yours is well along in years and you rely on it, don't wait for a failure. Test it, and replace it on your own schedule instead of on an emergency's.

★ Replace on your terms, not an outage's

There's real peace of mind in retiring an aging battery before it quits. You choose the day, you're never caught short, and the old one gets recycled properly.

Two kinds of homes, two sets of needs

A failing battery is a bigger deal the more you depend on it — and where you live shapes just how much that is.

If you live in town or the suburbs

In town or the suburbs, if a battery starts to fade you usually have quick options — a nearby shop to test it, a store to replace it, and a recycling drop-off close by — so a weak battery is more nuisance than emergency.

- A weak backup battery is easier to live with when outages are short and help is close.
- Testing and replacement are a quick errand, so there's little reason to limp along on a failing battery.
- Recycling drop-offs are nearby, so retiring an old battery is simple.
- Even so, don't ignore a swelling or hot battery just because it's convenient — that's a safety matter anywhere.

If you are out in the country on a well

Out in the country, a failing battery can leave you without water when the well pump has nothing to run on, and the nearest shop or recycler may be a long drive — so catching the signs early matters more.

- When your water depends on backup power, a fading battery is something to catch and replace before you need it.
- Test before the seasons you'll rely on it — a failure far from town is a real problem.
- Keep a healthy spare if you depend on one, and don't stockpile dead batteries loose in a shed.
- Recycling is a longer trip, so plan a run rather than letting old batteries pile up.

★ Not sure if yours is on its way out?

I'm glad to help you check — an honest look and a simple test, with no pressure to replace anything that's still good. Call (330) 200-8042.

When — and how — to test a battery

If you're seeing a warning sign, a simple test turns a guess into an answer.

The right test depends on the battery. For lead-acid, a resting voltage reading gives a rough sense of charge, and a load test — at home or at a shop — shows whether it holds up under real demand. For a power station or lithium pack, trust its own display or app, which reads true state of charge and often health through the BMS.

- Test when runtime drops or a battery starts acting up.
- Test before any season or trip you'll be counting on it.
- Test once a battery is several years old, even if it seems fine.
- When you'd rather not, many auto-parts stores test a car battery for free, and I'm glad to help too.

✓ Testing takes the worry out of it

A quick test tells you whether you've got a tired battery or plenty of life left. Our testing-and-monitoring guide walks through each method in plain English.

Tired versus dangerous: telling them apart

Most failing batteries are simply worn out. A few need more caution — here's how to tell them apart at a glance.

Just tired (plan to replace)	Handle with care (stop now)
Shorter runtime than before	Swelling or bulging
Won't quite reach full	Leaking fluid or a cracked case
Slowly fading over years	Hot to the touch in use
A worn UPS asking for a new battery	Hissing, smoking, or an odd smell

If it's in the left column, there's no rush and no worry — test it and replace it when it suits you. If it's in the right column, stop using and charging it, set it somewhere safe, and recycle it as damaged. The next pages cover exactly how.

Handling a failing battery safely

Once you've decided a battery is done, a few calm steps keep everyone safe until it's recycled.

- Stop using it and stop charging it — don't try to squeeze out more life.
- Move it somewhere safe: cool, dry, and away from anything flammable.
- Don't puncture, crush, or take apart a battery or sealed pack.
- For a loose battery, tape over the terminals so they can't touch metal and short.
- Keep it away from other loose metal, and out of reach of kids and pets.

That's really all it takes for an ordinary worn-out battery — set it aside safely and plan a recycling trip. A swollen, hot, or leaking one gets a little extra care, which is the very next page.

A swollen or hot lithium battery: the calm steps

This is the situation to know cold before it ever happens — so if it does, you act calmly instead of guessing.

If a lithium battery is swelling, hissing, smoking, or very hot, the watchwords are stay calm and keep your distance. Don't touch it, don't try to charge or discharge it, and don't move it if it's actively hissing or smoking. Get people and pets away from it and give it room.

For a mild case — a slightly puffy pack that's cool and quiet — you can carefully set it somewhere safe, away from anything that burns, and arrange special recycling. For anything more — real heat, hissing, smoke, or flame — get everyone out of the house and call 911. A battery fire is not one to fight yourself.

! When in doubt, get out and call for help

Battery fires are rare, but if one is truly underway, people come first: leave, and call 911 from outside. No device is worth a risk. For handling and recycling a damaged battery, call the recycler or your household-hazardous-waste site first — our disposal guide has the details.

Recycling the old one

A worn-out battery has one last important step: getting recycled, never thrown away.

Batteries don't belong in the household trash or the curbside recycling bin — loose batteries can start fires in trucks and at recycling centers. The good news is that recycling one is easy once you know where to go, and lead-acid in particular is among the most recycled products there is.

- Lead-acid: return it to an auto-parts store or retailer — often for a small refundable core deposit — or a recycling center.
- Lithium and power-station packs: take them to a battery or electronics recycling drop-off, and tape the terminals of loose ones first.
- Damaged or swollen batteries need special handling — call the site ahead so they're ready for it.
- Don't let dead batteries pile up loose in a drawer or shed.

✓ There's a whole guide on this

Our disposal-and-recycling guide covers where things go around here, including household-hazardous-waste days, so an old battery ends up in the right place.

When to replace, and when to keep going

Not every imperfect battery needs to go today — here's how I think it through.

If a battery is swelling, leaking, cracked, or running hot, the decision is made for you: retire it now. Those are safety matters, not judgment calls. Set it aside and recycle it.

If it's simply giving you less runtime or showing its age, you have room to choose. For a battery you truly depend on — backup power, a medical device, water on a well — I'd replace it sooner rather than later, on your schedule. For something less critical, you can often get more good use out of it, as long as you test it and aren't caught off guard.

★ The honest question I ask

Would it be a real problem if this battery quit tomorrow? If yes, replace it ahead of time. If no, you can ride it a while longer — just keep an eye on it.

Common Questions

The questions I hear most about batteries that are wearing out.

Q: Is a swollen battery dangerous?

It's a stop-now sign, but not an instant emergency the moment you see it. Don't use, charge, or puncture it. Set it somewhere safe away from anything flammable and recycle it as damaged. If it's also hot, hissing, or smoking, get people away and call 911.

Q: How many years should a battery last?

It varies too much to promise a number — it depends on the chemistry, how it's used, and how it's cared for. Lithium generally lasts far longer than lead-acid. Check that battery's warranty for its rated life, and test it as it ages.

Q: Can a failing battery be revived?

Sometimes a lead-acid battery that was just run down comes back with a proper charge, and a bad connection can mimic a dead battery. But a battery that's truly worn out, swollen, or damaged can't be safely revived — it's time to recycle it.

Q: My power station won't charge — is it dead?

Not necessarily. Its BMS may be protecting it because it's too cold, too hot, or drained very low — warm or cool it to room temperature and try again. Check its display or app for a fault, and the manual for what it means.

Q: Should I keep a battery that's only a little weak?

If it's just slightly down and nothing's swollen, hot, or leaking, you can often keep using it — just test it and don't rely on it for anything critical. When it's something you truly depend on, replace it sooner.

★ Still unsure about your battery?

Call or text me at (330) 200-8042. I'll help you tell a tired battery from one that needs care — honestly, and with nothing to sell you.

A quick 'is my battery failing?' checklist

Run through these when a battery seems off. Any 'yes' in the second group means stop and be careful.

- ☐ Runtime is much shorter than it used to be — test and plan to replace.
- ☐ It won't hold a charge or won't reach full — test it.
- ☐ It's several years old and I rely on it — test and plan ahead.
- ☐ It's swollen or bulging — stop now, isolate it, recycle it.
- ☐ It's leaking, cracked, or heavily corroded — retire it safely.
- ☐ It gets hot in use or charging — stop and let it cool; recycle if it keeps doing it.
- ☐ A light, beep, or app flags a fault — look it up and take it seriously.

✓ Keep this by your battery gear

A quick glance at this list settles most worries in a minute — and tells you the rare times to slow down and be careful.

Where to go next

A failing battery touches a few other topics — here's where to read more.

- Ready to retire one? Our disposal-and-recycling guide shows exactly where batteries go.
- Want to test before you decide? Our testing-and-monitoring guide covers each method.
- Want fewer failures in the first place? Our extending-battery-life guide gathers the habits that help.
- Wondering about safety? Our battery-safety-and-fire-prevention guide goes deeper, calmly.

You don't have to read them in order or read them all. Follow whatever's on your mind today — each guide stands on its own, and I'm a phone call away if you'd rather just talk it through.

You don't have to do this alone

You just have to remember that a friendly, patient person is one call away.

I hope this guide made the signs a battery is failing and when to replace it feel a little less daunting and a lot more doable. Keep it in a drawer with your other home papers, come back to a page whenever you need it, and don't worry about memorizing anything.

When you'd rather have a hand, that's exactly what I do. I come to your home, work at your pace, and never make you feel rushed or silly for asking. A first visit is a flat \$99, and for the parts that don't need me on-site I can often help right on your screen for \$49. Every visit comes with a 30-day, come-back-free guarantee. I don't do licensed electrical work or open up sealed battery packs myself — for anything hardwired, or for panel work, I'll help you line up a trustworthy local pro.

★ Bill's Home Tech — real help, close to home

Call or text me at (330) 200-8042, or visit BillsHomeTech.com. Serving Atwater and all of Portage County. 30+ years of patient, plain-English tech help — and if you're ever not 100% happy with a visit, I'll make it right or refund it. That's a promise. — Bill

Normal Aging vs a Warning Sign

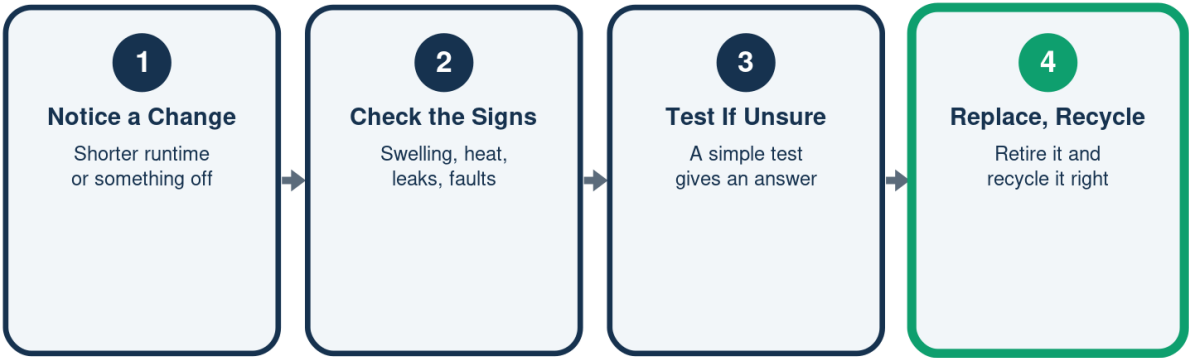
Telling the two apart at a glance

	Just getting old	Warning sign
Runtime	A bit shorter	Suddenly short
Charging	Full, bit slower	Won't hold it
The case	Looks normal	Swollen, leaking
Heat	Barely warm	Hot to touch

Slow fade is normal aging; sudden changes are worth checking.

Spotting Trouble Early

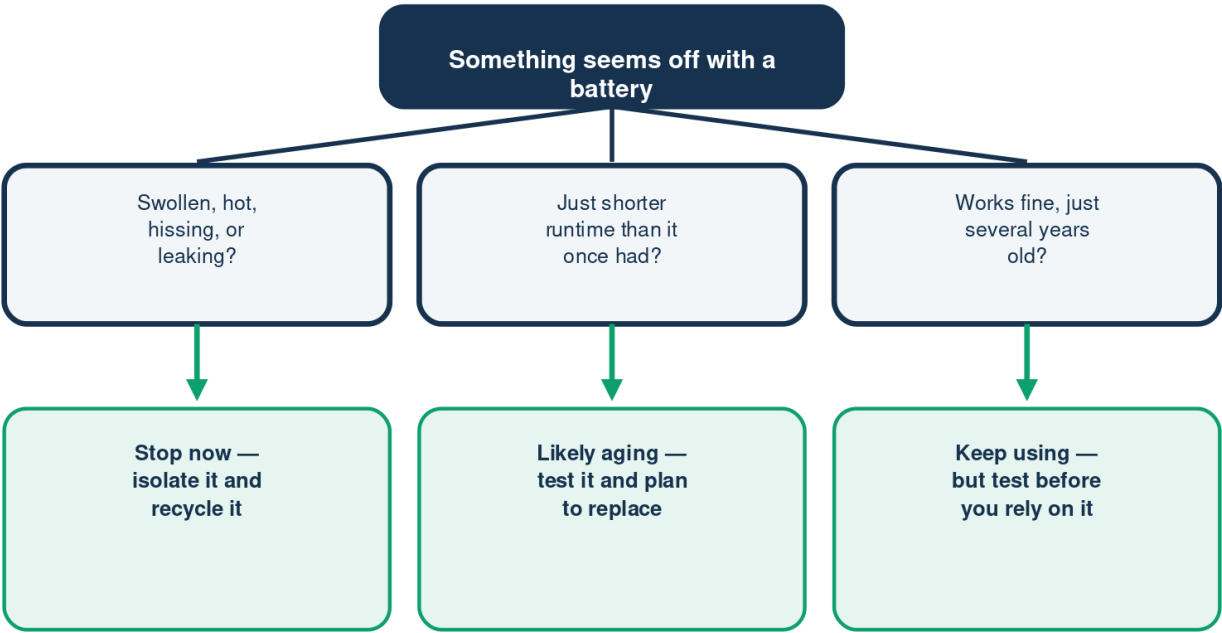
From first hunch to a safe hand-off



Catching it early beats a surprise in the middle of an outage.

Should I Keep Using This Battery?

A calm way to decide



Never charge a swollen, hot, or damaged battery — when unsure, test it.

Illustration - a schematic, not to scale. Your setup may differ.

Handling a Battery That's Done

Calm steps to a safe recycle



A damaged or swollen battery? Call the recycler ahead of time.



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You just have to remember you can call.
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If you are not 100% happy with a visit, I will make it right -- or refund it. No awkwardness, no fine print. That is how I would want to be treated.

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— Bill

Prefer help without a visit?

Bill can screen-share and fix many things remotely — a flat \$49, free for Support Plan members.



A Note From Bill

A quick note from Bill.

I write these guides to make home tech a little less frustrating, and I do my best to keep every step accurate and up to date. Still, every home, device, and setup is a bit different, so I can't promise a guide will match yours exactly or fix your particular problem. These guides are for general information only — they're not professional, legal, or financial advice, and they don't replace your device's own manual or the manufacturer's instructions. Please go slow, use your own good judgment, and use everything here at your own risk. If a step involves electrical wiring, a gas appliance, a water heater, plumbing, or climbing a ladder — or if anything just doesn't feel safe — please stop and call a licensed professional (or give me a call at 330-200-8042). Bill's Home Tech and Bill Davis can't be responsible for any damage, data loss, or injury that comes from using these guides. Thanks for reading, and stay safe out there.

— *Bill*



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