

We have been charging the wrong way for a long time

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Phone battery

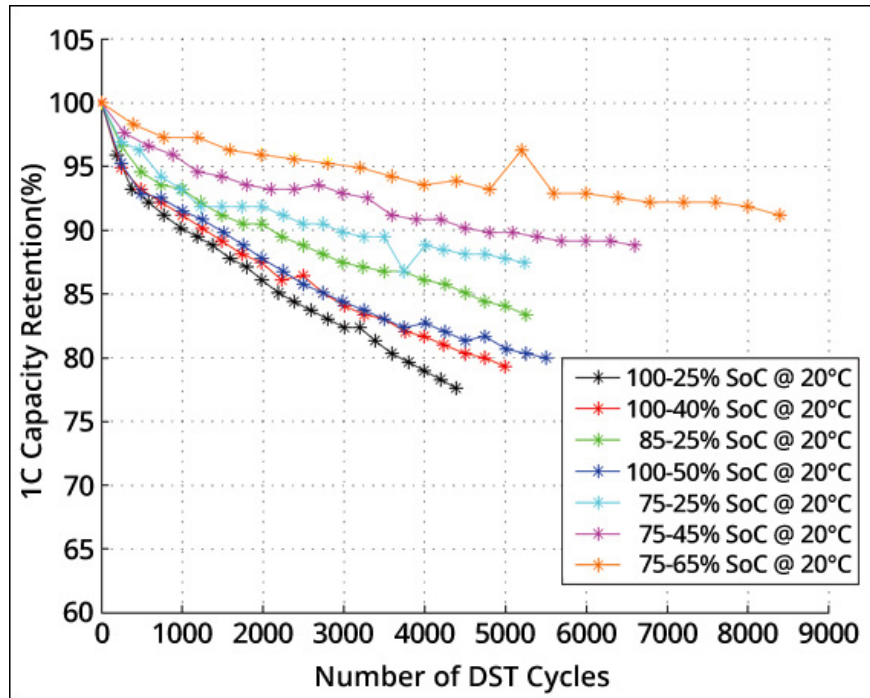
To better understand how to handle the phone's battery, we must first see what the battery is made of. Most smartphone batteries use batteries based on lithium-ion batteries. This is a very popular option of today's smartphone batteries. Lithium-ion batteries have no permanent life because they are charged and discharged so they will start to "age" and suffer from battery bottles. You will see less battery life and more battery charging time. The time between unplugging and plugging it in is called a "cycle".

1. Phone battery tips



Charging method

Thankfully, experts at Battery University did a study of lithium-ion batteries. They conducted a charging experiment and disconnected the lithium-ion battery in different ranges. This range is called "state-of-charge" or "SoC". They then monitored how well the battery holds the battery when it goes through hundreds of cycles.



From the graph, we can see that the absolute best way to keep a healthy battery is to charge it up to 75%, then plug it in when it is 65%. However, this is not a realistic expectation for a smartphone battery.

The second best result is 75% to 45%. Batteries charged in this range keep below 90% of the original battery after 6500 cycles. The third best result is 75% - 25%, followed by 85% - 25%. From there, we can see that the lithium-ion battery (when charging in real conditions) should be charged up to about 75% - 80% and recharged when the battery is about 50% - 40%.

P in memory (Battery Memory)



If you use a mobile phone model in your previous life, you may have read the user manual for these phones and see the dangerous warnings of always charging the battery at the first use and discharge. run out of battery before charging again. If you don't, you shorten the battery life. This is called "battery memory".

The memory battery effect occurs when mobile phones use nickel-cadmium batteries and nickel-metal-hydride batteries. With newer lithium-ion batteries, memory is no longer a problem, meaning you can charge a part without damaging the battery.

What if 100% charged ?



For some people, charging up to about 80% and stopping is impractical because they usually charge the battery while sleeping and do not want to wake up midnight just to unplug the phone battery charger. If you want to

fully charge the battery, the battery will not explode or suddenly run out of battery, it will only make the battery pack faster. If you really want to charge up to 100%, try recharging your phone when it reaches 50%. In all SoC ranges, to charge up to 100%, recharge at 50% for the best results.

See also: Phone does not charge or charge slowly, this is how to handle it

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