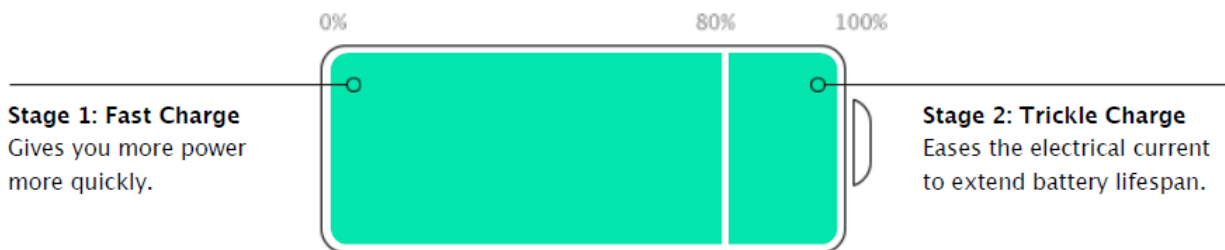


## Why Use Lithium-ion Batteries?

Why are Lithium-ion Batteries used in almost every device we have? Compared with traditional battery technology, lithium-ion batteries charge faster, last longer, and have a higher power density for more battery life in a lighter package. When you know a little about how they work, they can work that much better for you.

### It charges fast for convenience and slow for longevity.

Your Apple lithium-ion battery uses fast charging to quickly reach 80% of its capacity, then switches to slower trickle charging. The amount of time it takes to reach that first 80% will vary depending on your settings and which device you're charging. This combined process not only lets you get out and about sooner, it also extends the lifespan of your battery.



### It makes charging easier.

Charge your Apple lithium-ion battery whenever you want. There's no need to let it discharge 100% before recharging. Apple lithium-ion batteries work in charge cycles. You complete one charge cycle when you've used (discharged) an amount that equals 100% of your battery's capacity – but not necessarily all from one charge. For instance, you might use 75% of your battery's capacity one day, then recharge it fully overnight. If you use 25% the next day, you will have discharged a total of 100%, and the two days will add up to one charge cycle. It could take several days to complete a cycle.

The capacity of any type of battery will diminish after a certain amount of recharging. With lithium-ion batteries, the capacity diminishes slightly with each complete charge cycle. Apple lithium-ion batteries are designed to hold at least 80% of their original capacity for a high number of charge cycles, which varies depending on the product.



One charge cycle is completed after you've discharged 100% of your battery's capacity.

Author unknown.