



KEEPING YOUR SMARTPHONE BATTERY HAPPY

This month’s article is about the care and feeding of your smartphone, tablet, and laptop battery. In truth, it’s more about debunking the myths you (and we) have heard on how to save your battery’s charge or keep it from wearing out.

I’ll cut to the chase: There are two things you should do with your mobile device:

1. Plug it in at the end of the day when you’re through using it so it will be fully charged tomorrow.
2. Use it tomorrow and stop worrying about the battery inside.

For the past several years, mobile devices have been using lithium-ion batteries. (So do Tesla automobiles.) These batteries are reliable, efficient for their size and weight, and have a good lifetime, which is mostly a function of how often they are cycled between 100% and empty, rather than their calendar age.

Typical mobile device batteries have a 500 to 1000 cycle lifetime, where one cycle is defined as going from a completely charged state to zero. If you use only 50% of your battery before charging it back up, that’s only ½ of a cycle. So you should expect your device battery to last a few years.

The biggest battery-drainers are the screen backlight, and phone calls (“talk time.”)

Myths

Myth	Truth
1. Batteries develop “memories,” and you should only charge them when they’re completely discharged.	Older types (nickel-metal-hydride and nickel-cadmium) developed a “memory,” but not lithium-ion. It just doesn’t matter when you charge them.
2. Don’t keep your phone charging all the time because it will overcharge.	No, it won’t. Keep it plugged in when you’re not using it so your battery will be charged when you need it.
3. Close unused applications.	No need to. They’re not running unless you’re using them.
4. Turn off Bluetooth and navigation.	Minor effect on battery use. Probably not worth the effort.
5. It’s better to turn the device off instead of simply putting it to sleep.	Such a minuscule difference that it’s not worth the time wasted on start-up and shutdown.

Good Practices

1. Allow your device to automatically adjust its screen brightness according to the ambient light.
2. Keep you device plugged in when you're not using it so you'll always have a fully charged battery when you head out.
3. Consider buying a USB battery pack for about \$20. They'll recharge your phone when you can't use your charger.