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Extend Battery Life

With summer travel upon us we will all be relying on our portable devices more and more. Our laptops, tablets and smartphones are wonderful devices but if you are like me the batteries do not last nearly long enough. Here are some tips on how you can extend the battery life (when you need a recharge) and lifespan (when you have to replace the battery or the device if it does not have a replaceable battery).



First of all it is a good idea to understand what features are using battery power and then you can better manage those features to try and preserve as much power as possible. Here is a list of the top features that use battery power the most:

- 1. **Open Apps:** Learn how to close open apps. On an *iOS* device double press the Home button. This will show all the apps that are running. In *iOS* 7 slide each small window straight up the screen to close it. On *Android* press and hold the Home button. Slide each small window either left or up to close. Do this once per day or so.
- 2. **The screen:** The screen uses more power that any other feature. Lower the brightness to the lowest level acceptable to you. Also, shorten the auto-lock time (when the screen turns off by itself).
- 3. **Vibrate:** When your phone rings or receives a new message it may vibrate. This feature uses a lot of battery power. If you don't need it turn it off.
- 4. **Notifications:** The more notifications you get the more battery power you are using. If you don't need to be notified every time you get a new email turn off this feature.
- 5. **Bluetooth:** This is a wireless technology and if you are not using a Bluetooth connection to a headset or your car then turn off

Bluetooth to save battery power.

- 6. **Fetch Email:** Checking for new email messages every 15 minutes uses a lot of battery power. If you change this setting to "manual" don't worry. Your email program will still see new email messages when you go to the program but it won't "fetch" new email all the time.
- 7. WiFi & Cellular Data: Smartphones use WiFi & Cellular Data. Tablets use WiFi and may or may not use Cellular Data depending on if you have a monthly plan for your Tablet. Generally it is a good idea to leave WiFi on all the time particularly when you are home. Your smartphone is constantly connecting to the Internet for a variety of reasons and doing so over WiFi instead of Cellular Data actually saves battery power. On the other hand when you are away from home you would be using Cellular Data (unless you connect to a WiFi network away from home) and your device would constantly be trying to connect to WiFi so turning off WiFi when away from home would save battery power. But then you have to remember to turn it back on again when you return home. So for most people just leave WiFi on all the time and make sure you are connected to your WiFi at home.

These are some of the top users of battery power but the list goes on. Here are some links to help you with the above features and to turn even more features on or off:

iPhone, iPad & iPod touch

How to Save Battery Power on an iPhone (wikiHow)

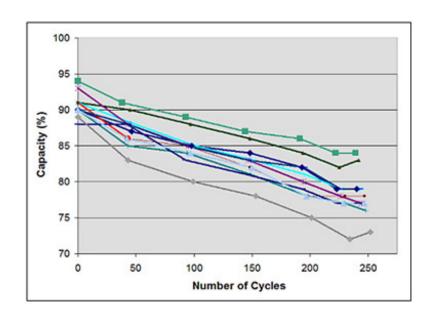
How to Extend the Battery Life of an iPad (wikiHow)

8 iPhone Battery Tips and Tricks (PC Magazine)

Android Phones & Tablets

10 tips to improve Android battery life (TechRepublic)

11 Tips to Boost Your Android Phone's Battery Life (PC Magazine)



Extend Battery Lifespan

Here are some tips for extending the lifespan (when you have to replace the battery or the device if it does not have a replaceable battery):

- 1. **Keep it Cool:** Keep the device out of hot, parked cars. Take it inside with you. Batteries like to be kept at 32-95 degrees. If possible recharge batteries in a cool place.
- 2. **Keep it charged:** Smaller discharges and recharges prolong the life of the battery rather than fully discharge/recharge. Charge your device every night.
- 3. Storing: If storing for a long period of time fully charge it.

There is some confusion as to whether you should fully discharge a battery (use it until the battery goes dead) once a month or so and then fully recharge it (called "Conditioning"). This is true of NiCd and NiMH batteries but not true of Li-lon which are used in all *Apple* products and most other new devices. So it is important to know which type of battery your device uses and if it uses a NiCd or NiMH battery then go ahead and fully discharge it once a month or so. But this is definitely <u>not</u> necessary with all *Apple* devices. Both NiMH and Li-lon batteries should be fully charged before first use or after prolonged storage.



Laptop Cooling Plate

There is also some confusion as to whether you should remove a laptop battery if you will always be connected to AC power to avoid over charging/over heating the laptop battery. Today's chargers are "smart" chargers which do not continue to charge a charged battery, so it is not necessary to remove a laptop battery if you are running on AC power. You should avoid heat on the bottom of a laptop by using a cool plate under the laptop. Sold wherever laptops are sold it is a plate for the laptop with a fan or fans to blow air on the bottom of the laptop.

NiCd vs NiMH vs Li-lon (Tyco)
Lithium-ion polymer batteries (Apple)
How to Extend the Lifecycle of NiMH Batteries (DoltYourself.com)
How to Prolong Lithium-based Batteries (Battery University)

I hope this helps you get maximum battery power for years to come.

Updates/Upgrades

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Some of my clients do not realize that my business has expanded to all mobile devices. In fact, any consumer electronic product that you can purchase I can help you with. So if you would like help setting up or syncing your new smartphone or tablet or connecting your new WiFi TV to the Internet, just let me know.

Claude Kerno

Computer & Consumer Electronics Consultant 719.650.9916 claude@kerno.biz - www.kerno.biz