HOW TO GET BETTER BATTERY LIFE ON YOUR iOS 13 DEVICES
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Since the iPhone was first released in 2007, and the iPad in 2010, there has been an iOS update just about every 12 to 18 months. With each of these updates, Apple improves battery life just as it manages to pack more battery capacity into their devices. For most of us with newer devices (within 3 to 4 years old), you can go an entire day and more, before the battery runs down. Nevertheless, when needed, such as during extended travel, you can change some iOS settings which will maximize the use of your devices by ensuring you're getting the most of your battery usage.

EMERGENCY BATTERY MANAGEMENT

Let's start by looking at some handy "quick-fix" solutions for immediate reduction of battery use in those stomach-sinking situations where you realize you're running out of power and don't see an immediate place where to plug-in.

First, realize that the worst offenders of power-hog-iness are the screen and the radios – Wi-Fi, Cellular, Bluetooth, GPS – all of which are constantly sending "pings" looking for services to connect to. If you find yourself in a situation where your device's battery is running low on power, and you have no way to get external power or a recharge – for instance, you're in a raft in the middle of the Indian Ocean – there are some important things you can do in a last-ditch effort to stretch out that supply of battery power:

1. iOS now offers a universal <u>Low Power Mode</u>. It will turn on by default when the device's battery reaches 20% power remaining, and you will be notified. The battery icon on the top menubar will turn yellow. Switch it ON manually by going to ***Settings > Battery*** and ENABLE ***Low Power Mode***. This will temporarily reduce background activity like downloads and mail fetch, until you can fully charge your device. Notice also that on this panel, you can review how much power your various apps are using.

2. [Screen] Reduce screen brightness as much as possible. The screen, along with the various radios, is a massive power consumer. Go to ***Settings > Display & Brightness*** and select a minimal brightness level using the slider. You can also do this via the **Control Center**.

3. [Screen] Reduce the Auto-Lock time. This is the amount of time before the phone "auto-locks" and turns off the display. This is very handy should you happen to forget to use the sleep button when you're done using the device. I actually use this tip quite often in low-battery situations. The control for this is also located on the **Display & Brightness** Panel.

4. [Radios] ENABLE Airplane Mode. This is the big "master switch" for ALL radios. You can quickly turn off all radios by enabling **Airplane Mode** either in the **Control Center** or via ***Settings > Airplane Mode*** at the very top of the panel. You will also find individual radio controls here. Additionally, if you don't plan to use your device as a **Personal Hotspot**, keep that setting OFF.

5. [Radios] Avoid downloading or uploading files or apps as well as app updates.
Of course, the chances of accessing net services out in the middle of the Indian Ocean are slim to none. Just sayin'…

6. The ultimate act of desperation. Finally, you always have the option of simply TURNING OFF your device in order to conserve power for that one last communication that could get you out of a jam or even save your life!

NEXT… SOME ENERGY-SAVING TIPS!

ENERGY-SAVING TIPS

Let's look now at some tips for you to routinely cut-down on power consumption:

Tip #1: Disable Raise to Wake on your iOS device

Raise to Wake was introduced with the iPhone X. It's a way to view the **Lock Screen Notifications** by simply raising your iPhone while in portrait (vertical) orientation. This is considered to be a great feature, but it can cause your screen to cycle on and off throughout the day and contribute to battery drain. For what it's worth, I never liked or use this feature. To disable it, go to *Settings > Display & Brightness* and DISABLE the option for *Raise To Wake*. With this feature disabled, you can still tap the screen to turn it on for newer devices, but raising it will not cause the screen to turn on. For older **Touch ID** devices, you can wake the device by pressing the Home Button or the Sleep/Wake button.

Tip #2: Disable Background App Refresh when using a cellular data connection

To me, the **Background App Refresh** feature is a very useful feature in iOS. It allows apps to update in the background so that the next time the app is launched, data and other visual details are pre-loaded. Email clients, Maps, and other apps use this feature to provide a better user experience. While I don't recommend disabling this feature for all apps, it's good idea to review the apps that do use it, and disable any that aren't regularly used so they aren't wasting battery life.

To check which apps are using Background App Refresh, go to *Settings > General > Background App Refresh.* Go through your list of apps, and DISABLE this feature for any apps you don't care to have automatically refreshed in the background (i.e.; while you're actively using other apps). When Background App Refresh is disabled for individual apps and you quit an app that's in this list, it will no longer download data in the background to keep the app's content fresh; instead, you must open the app for it to download new content.

Make note of the fact that at the top of the this Settings panel, you do have the option to turn OFF all Background App Refresh via one "master switch".

Background App Refresh has an additional feature that allows apps to refresh *only when connected to Wi-Fi*, not when on a cellular data connection, which uses more power and can cost you when paying the cellular provider's bill. To enable this, while in the Background App Refresh panel, tap on "Background App Refresh" at the very top, then select **Wi-Fi** instead of the default **Wi-Fi & Cellular**.

Tip #3: Disable Motion Effects

Motion Effects is another potential battery-draining feature in iOS. Disabling motion effects means that the cute (and often unnoticeable) animations and parallax visual effects throughout iOS and third-party apps will be toned-down or removed altogether. However, if you can live without this "eye-candy", you can save battery life. Do this via *Settings > General > Accessibility > Motion* and ENABLE the option for **Reduce Motion**.

Tip #4: Manage Bluetooth connections

Do you have multiple Bluetooth devices connected to your iOS device? Things like external keyboards, speakers, earphones and more? Are you actively using them? Whatever is paired with your device will be continuously searched for by the system. What does this equate to? Yes… battery drain! Review the items listed in *Settings > Bluetooth*, and remove any you're not currently using by tapping the little **"i"** (for "info") next to any connected device you wish to disconnect. Tap *Forget This Device* (or *Disconnect*), if available. In a pinch, you can also DISABLE Bluetooth completely via *Settings > Bluetooth,* and toggle it **OFF**.

Tip #5: Manage Location settings

Location Services and the use of the **GPS** receiver to track your device for various apps can be a huge battery hog. iOS 13 includes a new way to manage these settings. It's worthwhile to manage your location settings in apps to ensure that only those that need to use your location have access permission to do so.

Using the **Location Services** feature, you can set different options for each individual app that wants access to your location.

To review and manage location tracking, go to ***Settings > Privacy***, then tap the option for **Location Services**. You can certainly turn off all Location Services by flipping the "master switch" at the top of this panel, but disabling all Location Services will limit the functionality of certain apps and services. After all, if you want to find the nearest *Starbucks* using the *Maps app*, you do need Location Services ENABLED at least just for the *Maps* app (or the *Starbucks* app).

So, you can check and control the location tracking for each individual app. Tap the entry for a specific app, perhaps one in which the ability to allow location access is set to ***Always***. Depending on the app, you'll see three or four different choices:

> ***Always:*** Location tracking is always enabled for that app whether or not you're using it, so it can track your location in the background. Obviously a potential issue related to power (and possibly, privacy).

> ***While Using The App:*** Location tracking is enabled only when you're actively using the app. This is the best setting.

> ***Never:*** No location tracking, even if you're using the app.

> ***Ask Next Time:*** With this option, you'll be informed if an app wants to continue to track your location after a certain period of time.

This last category is not always available, and can be cumbersome. Some apps insist of having ***Always*** enabled in order to work properly (I have this issue with the *WaWa* app).

Tip #6: Place your iPhone face down when not in use

Starting with the **iPhone 6**, if you turn the device face down when not in use, it will keep the screen from lighting up when notifications are received. This, of course, helps prevent battery drain. As we already know, the screen is one of the big culprits in battery power drain.

The final two tips that follow are specifically for new iPhone models that feature the advanced **OLED** screen technology (Organic L.E.D.) These include iPhone XS and XS Max and iPhone 11 Pro and Pro Max.

Tip #7: Disable Dynamic Wallpapers on OLED screen devices

The **Dynamic Wallpapers** feature was introduced back in iOS 7. These generate some animations in the background, such as relaxing floating bubbles on colored backgrounds. However, they can drain battery life. If you use Dynamic Wallpapers and experience issues with battery life, you might want to disable them in favor of a "still" (static) background image by going to ***Settings > Wallpaper > Choose a New Wallpaper***, then at the top of the screen you will see three wallpaper categories to choose from: *Dynamic, Stills* and *Live*. Tap on ***Stills*** and make your selection from built-in wallpapers or make your own wallpapers from your photo collection that will be shown to you at the bottom. Whatever wallpaper you choose, when prompted, be sure to set it to work in <u>both</u> **Home Screen** AND **Lock Screen** backgrounds when prompted. If you want to maximize your power saving, select the <u>solid black</u> wallpaper at the very bottom from the choices offered. Why? Because on OLED screens, ***any black pixels will use little or no power.***

Tip #8: Use your OLED screen device in DARK MODE

For the same reason mentioned in Tip #7, using **Dark Mode** on devices with OLED screens can increase the battery life because Dark Mode swaps out the white backgrounds for dark backgrounds that use less power from the battery. This is a great way to preserve your battery life on these newer devices that have OLED screens. To enable **Dark Mode** on iOS 13, go to ***Settings > Display & Brightness*** and change the **Appearance** from <u>Light</u> to <u>Dark</u>. For full-time Dark Mode DISABLE **Automatic** mode.

Finally, remember that over time, all batteries lose the capacity to store a full charge. All these tips will help assuage the effects of this capacity loss.