

**How long will my hearing aid batteries last?**

It is the first thing a hearing aid wearer wants to know as soon as they insert their first battery. And if you are the person that sold them the hearing aid they are going to ask you. And they should, after all you are the expert and you should know the answer to this important question.

Calculating battery life isn't difficult, but you do need a couple of key pieces of information. First, you will need to know the capacity of the battery in milliamp hours. This figure is the total hours a battery can provide 1 milliamp of electrical current, and can usually be found on the battery packaging. Battery capacity can vary, depending on the make and size of the battery, but if you are using a standard zinc air type here are some approximate values you can use:

**Approximate Battery Capacity in milliamp hours:**

Battery Size:	Milliamp Hours:
675	600 mah
13	260 mah
312	130 mha
10A	70 mah
5A	35 mah

Another piece of information you will need to calculate battery life is the battery drain of the hearing aid, or how much electrical current the hearing aid is using. You will need test equipment to perform this measurement, such as a battery drain meter or acoustic test equipment that will measure battery drain. When determining battery drain, connect the hearing aid to the test equipment and turn the hearing aid ON. Make sure to set the volume control to approximate user level. Take into consideration some hearing aid amplifiers draw more current under noisy settings.

**The Calculation for Hearing Aid Battery Life:**

Divide the Battery Capacity in milliamp hours by the Battery Drain of the hearing aid. This will give you the approximate total number of hours the hearing aid battery should last in that particular hearing aid. Next, divide the total number of hours by the number of hours the user will wear the hearing aid during the day.

Example: You want to calculate how many days a battery will last in an ITE instrument using a 312 size battery. You have measured the Battery Drain at .75 ma and we will use the default Battery Capacity from the table above which is 130 mah. We will assume the user is wearing the hearing aid 16 hours per day.

Total Hours (TH) = Battery Capacity (BC) / Battery Drain of Hearing Aid (BD) = 130 / .75 = 173.33 Total Hours.  
 Total Days (TD) = Total Hours (TH) / Hours worn per day (HW) = 173.33 / 16 = 10.83 Days.

**BDM-1 Battery Drain Meter**



**\$107.00**

Optional 32A-S battery pill:  
 \$21.00

BDM-1 battery Drain Meter supplies working voltage to a hearing aid while displaying the amount of battery drain on an LED display. Great tool for quickly determining the battery drain of a hearing aid. Requires a battery pill to connect to a hearing aid (not included).

**BDM-2 Battery Drain Meter**



**\$127.00**

Optional 32A-S battery pill:  
 \$21.00

BDM-2 battery Drain Meter supplies working voltage to a hearing aid while displaying the amount of battery drain on an LED display. BDM-2 also includes a voltage probe for displaying DC voltage. Requires a battery pill to connect to a hearing aid (not included).