

Battery Considerations

Avazzia recommends a good lithium or alkaline disposable battery. (See the link below for an analysis of output of three common alkaline batteries.)

Avazzia does not recommend using rechargeable batteries. The total output of two AA rechargeable batteries, fully charged (2.4 volts), is lower than two AA alkaline 1.5V batteries (3.0V). The time an Avazzia device can be used with rechargeable batteries will be diminished because of the low output.

These are recommendations only.

Recommended

1. **Lithium batteries:** (not rechargeable) 3.0 volts or higher for two AA batteries; long lifetime for use. One brand readily available: Energizer Ultimate Lithium
2. **Alkaline batteries:** (not rechargeable) These batteries are widely available. For best results, purchase batteries that are 1.5V per AA battery (giving a 3.0V for two used in an Avazzia device). Recommended brands include: Interstate Alkaline 1.5V AA battery, Energizer Max 1.5V AA battery, Duracell CopperTop 1.5V AA.

Not Recommended

1. **Lithium Iron Phosphate:** This is a rechargeable battery. Avazzia does not recommend.
2. **Lithium Iron:** These batteries are relatively hard to find and don't appear to offer an advantage over the more common AA Alkaline battery.

This article (<http://www.wired.com/wiredscience/2012/01/are-expensive-batteries-worth-the-extra-cost/>) from *Wired Online* compares energy from Duracell, Energizer and batteries from Dollar Store on a cost basis. The time to get to 1.0V output for the three batteries is clearly charted in this story. In sum, Energizer alkaline AA batteries last the longest of the three versions tested. The chart (below) is from the *Wired Online* article.

