

# The Importance of Battery Life in Temporal Artery Thermometers

The sustainability and efficiency of medical devices, such as the Exergen Temporal Artery Thermometers, have become increasingly important due to evolving regulations and the rising costs associated with battery replacements. Hospitals, clinics, distributors, and Original Equipment Manufacturer (OEM) and Original Design Manufacturers (ODM) partners need to be aware of these challenges to ensure compliance, cost-effectiveness, and environmental responsibility.

## **Additional regulations**

The adoption of the [Corporate Sustainability Due Diligence Directive \(CSDDD\)](#) by the European Parliament mandates that companies, including those outside the EU with significant operations within the EU, adhere to strict environmental and human rights due diligence standards. This directive, effective from April 24, 2024, imposes comprehensive sustainability obligations. Companies must integrate environmental considerations into their business models, ensuring their operations align with global climate targets and sustainability goals.

The CSDDD specifically requires companies to adopt climate transition plans, including measures to limit global warming to 1.5 degrees Celsius and achieve net-zero greenhouse gas emissions by 2050. For medical device manufacturers and their supply chains, this means a focus on reducing the environmental impact of their products, including the waste generated by frequent battery replacements. This requirement is now mandatory in the European Union.

## **The Costs of Frequent Battery Replacements**

Regular battery replacement in medical devices not only contributes to environmental waste but also incurs significant costs. Hospitals and healthcare providers face substantial expenses in maintaining the functionality of their equipment, and the financial burden of replacing batteries frequently can be considerable. By extending battery life, these costs can be reduced, resulting in savings that can be redirected towards other critical healthcare needs.

## **Environmental Impact of Batteries**

Batteries contain hazardous materials that pose a risk to the environment when not disposed of properly. The production, use, and disposal of batteries contribute to environmental pollution, including soil and water contamination. With increasing global emphasis on sustainability, reducing battery waste is crucial. Longer battery life in medical devices like thermometers directly supports these environmental goals by minimizing the frequency of battery disposal and reducing the overall environmental footprint.

### **Tips to Extend Battery Life in Exergen Temporal Artery Thermometers**

As a company, Exergen is strongly committed to being environmentally friendly. Given the importance of sustainability and cost-efficiency, extending the battery life of Exergen Temporal Artery Thermometers is crucial. Here are some practical strategies:

- **Immediate Power Off After Use** - Encouraging healthcare professionals to manually switch off the thermometer immediately after taking a reading can significantly extend battery life. While this practice may not always be feasible for every user, it can still result in a substantial reduction in battery consumption if consistently applied. If you compare the extreme opposite cases of A) letting the display run until auto-shutoff in 30 seconds versus B) immediately tapping the power button after the reading appears, you can get up to 8 times more battery life. There is no doubt that case B is not always realistic, since every nurse or health professional who touches the thermometer would have to do that. There may be a factor of two to three times more battery life if some nurses do it, while others do not.
- **High-Quality Batteries** - Using high-quality batteries from reputable brands ensures better performance and longer battery life compared to cheaper, no-name alternatives. Investing in reliable batteries can reduce the frequency of replacements and ensure consistent device performance. Batteries will need to be replaced less frequently, so the higher cost of purchase will often be offset by lower battery replacement costs
- **Integrated Power Solutions** - Utilizing Vital Signs Monitors (VSMs) that can power the thermometer can eliminate the need for separate batteries. These integrated systems can draw power from the VSM.
- **Regular Maintenance and Calibration** - Regular maintenance and calibration of the thermometer can ensure it operates efficiently, reducing unnecessary battery drain. Proper care and servicing can extend the device's overall lifespan, including its battery life.

- **User Training and Awareness** - Training healthcare staff on best practices for using and maintaining thermometers can foster habits that help conserve battery life. Awareness programs can emphasize the importance of sustainability and proper device handling.

As the healthcare industry moves towards greater sustainability, the management of battery life in medical devices such as Exergen Temporal Artery Thermometers is increasingly important. Compliance with the EU's CSDDD, cost savings from reduced battery replacements, and the environmental benefits of minimizing battery waste all underscore the need for extended battery life. By implementing practical strategies to conserve energy and promote sustainability, hospitals, distributors, and OEM partners can contribute to a more efficient and environmentally responsible healthcare system.

Source: Corporate Sustainability Due Diligence, [https://commission.europa.eu/business-economy-euro/doing-business-eu/sustainability-due-diligence-responsible-business/corporate-sustainability-due-diligence\\_en](https://commission.europa.eu/business-economy-euro/doing-business-eu/sustainability-due-diligence-responsible-business/corporate-sustainability-due-diligence_en)

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