

Wearable Technology for Healthcare Monitoring

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Abstract: *Wearable technology has emerged as a transformative tool in healthcare monitoring, providing real-time data and personalized insights that enhance patient care and promote proactive health management. This paper explores the advancements in wearable healthcare devices, such as fitness trackers, smartwatches, and biosensors, and their applications in monitoring vital signs, managing chronic conditions, and predicting health outcomes. Through a review of recent studies and case analyses, the paper assesses the accuracy, usability, and integration of wearable technologies within healthcare systems. The findings highlight the potential of wearables to reduce healthcare costs, improve patient outcomes, and empower individuals in managing their health. However, challenges such as data privacy, device accuracy, and user adherence must be addressed to fully realize the benefits of wearable technology in healthcare. This research underscores the importance of continued innovation and regulatory frameworks to ensure the efficacy and safety of wearable devices in clinical and everyday settings.*

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