

Wearable Technology in Monitoring Chronic Diseases

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Abstract. Wearable technology is revolutionizing the management of chronic diseases by providing continuous health monitoring. This article explores the impact of wearable devices on patient care, focusing on their use in monitoring conditions like diabetes, hypertension, and cardiovascular diseases. The integration of real-time data collection and analysis enhances patient engagement and treatment adherence. Challenges such as data privacy and device accuracy are discussed, highlighting the future potential of wearables in healthcare.

Keywords: wearable technology, chronic diseases, health monitoring, patient engagement, real-time data

Introduction

The integration of wearable technology into healthcare systems has opened new avenues for managing chronic diseases effectively. These devices allow for continuous health monitoring, providing real-time data that can significantly enhance patient care and treatment outcomes. This article reviews the current applications of wearable technology in the management of chronic conditions such as diabetes, hypertension, and cardiovascular diseases. By enabling real-time data collection and analysis, wearable devices facilitate improved patient engagement and adherence to treatment plans. Despite their potential, the use of wearables in healthcare presents challenges, including concerns over data privacy, accuracy of the devices, and the need for seamless integration with existing healthcare systems. The article explores these issues and discusses the future potential of wearable technology in transforming chronic disease management, emphasizing its role in promoting proactive and personalized healthcare.

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References

1. Крамний, І. О., Чурилін, Р. Ю., & Бортний, М. О. (2006). Невідкладна рентгенодіагностика пошкоджень та гострих захворювань грудної клітки. Навчальний посібник для самостійної роботи лікарів рентгенологів, інтернів, пульмонологів в кредитно-модульній системі.—Харків.
2. Шаповалова, В. В., Шармазанова, Е. П., Бортний, Н. А., & Скорик, А. Р. (2018). Комплексная лучевая диагностика некротического энтероколита у новорожденных. Здоровье ребенка, 13(Приложение 1), 100-106.
3. Сабри, М. (2022). Cervical Cancer Prevention: Awareness Assessment Research of Healthy and Disease-Affected Women / Профілактика на рака на маточната шийка: оцeнка на информираността при здрави и болни жени (Doctoral dissertation). Medical University of Varna. [Sabri, M. (2022). Cervical Cancer Prevention: Awareness Assessment Research of Healthy and Disease-Affected Women / Profilaktika na raka na matochnata shiyka: otsenka na informiranostta pri zdravi i bolni zheni (Doctoral dissertation). Medical University of Varna]. Available at: <https://repository.mu-varna.bg/handle/nls/2725>
4. Sabri, M. (2021, August). Prophylactic Examinations For Cervical Cancer—Mandatory Precaution That Can Save A Life. In Varna Medical Forum (Vol. 10, No. 2, pp. 443-448).
5. Mansuri, U., Venkata, S. Y., Ogbue, S. C., Moram, R. S., Goyal, A., Bhatt, H., ... & Patel, U. (2023). Mo1213 GENOME SEQUENCING, MUTATIONAL ANALYSIS, AND SURVIVAL RATE OF COLORECTAL CARCINOMA-AN ANALYSIS FROM CBIOPORTAL. Gastroenterology, 164(6), S-787.
6. Virolia, K., Hojjat, A., Pena, B., Bhatt, H., Mehta, N. N., Venkata, S. Y., ... & Palabindela, P. (2023). Sa1359 HELICOBACTER PYLORI ASSOCIATED GASTRO-INTESTINAL BLEEDING IN BARIATRIC SURGERY-NATIONWIDE SURREY. Gastroenterology, 164(6), S-373.