

# A Survey on Impact of Internet of Medical Things Against Diabetic Foot Ulcer

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## Abstract

**INTRODUCTION:** In this study, we explore the intricate domain of Diabetic Foot Ulcers (DFU) through the development of a comprehensive framework that encompasses diverse operational scenarios. The focus lies on the identification and classification assessment of diabetic foot ulcers, the implementation of smart health management strategies, and the collection, analysis, and intelligent interpretation of data related to diabetic foot ulcers. The framework introduces an innovative approach to predicting diabetic foot ulcers and their key characteristics, offering a technical solution for forecasting. The exploration delves into various computational strategies designed for intelligent health analysis tailored to patients with diabetic foot ulcers.

**OBJECTIVES:** The primary objective of this paper is to present a technical solution for forecasting diabetic foot ulcers, utilizing computational strategies for intelligent health analysis.

**METHODS:** Techniques derived from social network analysis are employed to conduct this research, focusing on diverse computational strategies geared towards intelligent health analysis for patients with diabetic foot ulcers. The study highlights methodologies addressing the unique challenges posed by diabetic foot ulcers, with a central emphasis on the integration of Internet of Medical Things (IoMT) in prediction strategies.

**RESULTS:** The main results of this paper include the proposal of IoMT-based computing strategies covering the entire spectrum of DFU analysis, such as localization, classification assessment, intelligent health management, and detection. The study also acknowledges the challenges faced by previous research, including low classification rates and elevated false alarm rates, and proposes automatic recognition approaches leveraging advanced machine learning techniques to enhance accuracy and efficacy.

**CONCLUSION:** The proposed IoMT-based computing strategies present a significant advancement in addressing the challenges associated with predicting diabetic foot ulcers. The integration of advanced machine learning techniques demonstrates promise in improving accuracy and efficiency in diabetic foot ulcer localization, marking a positive stride towards overcoming existing limitations in previous research.

**Keywords:** Diabetic Foot Ulcer, Classification, Smart Health, Smart analysis prediction, Detection, Internet of Medical Things

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## 1. Introduction

Diabetic foot ulcers have ignited intense debate surrounding functional implications and patient-related expenditures.

The potential consequences of these ulcers and their associated outcomes drive efforts to prevent adverse health impacts. Addressing the substantial costs of ongoing medical treatment and personalized patient care, especially in light of the rising expenses, has been examined through the lens of the IoMT. This study taps into IoMT's potential





















