

Risk Factors and Etiopathogenesis for the Development of Diabetic Foot Ulcers

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INTRODUCTION

Diabetic foot ulcers (DFUs) remain one of the serious and devastating complications among people with diabetes, culminating in a substantial increase in the economic burden of the country and a reduction in their quality of life. Once an ulcer develops, the wound progresses and can even result in complications like amputation. Around 85% of amputations are preceded by DFUs,¹ and the incidence of amputation was 10 times more among people with diabetes than those without diabetes.² The direct costs for treating diabetic foot complications among those hospitalized were four times more than those without these complications.³ It is of utmost importance to understand the etiopathogenesis behind the occurrence of these ulcers for their strategic prevention and effective management. The underlying pathogenesis for the development of DFU is complex.

PATHOGENESIS OF DFUs

The underlying pathogenesis for the development of DFU is complex. Four essential components are involved in the pathogenesis of DFUs, namely—diabetic neuropathy, diabetic angiopathy, impairment of the immune system, and metabolic dysfunction⁴ (**Fig. 1**). A complex interaction among one or more of these factors can contribute to the development and progression of foot infections or neuroarthropathy and ultimately can result in the development of a diabetic foot.

The etiology of DFUs can be broadly classified into three types, which are depicted in diagram⁵ (**Fig. 2**).