Diabetic foot ulcers cause severe morbidity and have a negative impact on a person's mobility and quality of life. Even after successful healing, a recurrent foot ulcer develops in roughly 40% of the people within one year. Prevention of foot ulcer recurrence in diabetes is paramount to reduce the large burden on people and healthcare systems. At-home monitoring of foot temperatures is developed as a telehealth application for the diabetic foot. Diabetic foot ulcers are suggested to be preceded by local increased skin temperature caused by accumulating repetitive stress from being ambulatory. Early recognition of imminent ulcers by monitoring foot temperature allows people at-risk to act timely by reducing their ambulatory activity to reduce local inflammation. This thesis describes the protocol and results of the DIATEMP trial, a multicenter, outcome assessor blinded, randomized controlled trial that included 305 participants and aimed to assess the effectiveness, cost-effectiveness and cost-utility of daily at-home monitoring foot temperature monitoring to reduce the incidence of foot ulcer recurrence in high-risk people with diabetes. Also, to improve the treatment for prevention, insights in the pathogenesis of diabetic foot ulceration and its risk factors are important. Therefore, this thesis describes the development, internal validation and performance assessment of multiple logistic region prediction models for foot ulcer recurrence. These prediction models may help to identify those people with diabetes who are at risk of developing a recurrent plantar foot ulcer.