

**#4 TIMING OF PEDAL BYPASS FAILURE AND ITS IMPACT ON
THE NEED FOR AMPUTATION**

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Introduction: Although the utility of dorsalis pedis (DP) bypass for limb ischemia has been well established, the fate of limbs with failed DP bypass grafts remains unclear.

Methods: Data of all patients undergoing DP bypass grafting within a 12 year period from two university hospitals' vascular registries was retrospectively reviewed. Outcomes of early (<30 days) and delayed graft failure (>30 days) were examined.

Results: Out of 1434 DP bypass grafts, 277 (19.3%) failed grafts were identified. Sixty five (4.5%) grafts failed early and 212 (14.8%) failed late at a mean time of 15.3 months (range 2-105 months) after initial bypass. Early graft failure resulted in a significantly higher rate of major amputation when compared to late graft failure (63.1% vs. 45.8% respectively) ($p= 0.015$). Of the 65 limbs with early graft failure 28 proceeded directly to amputation, 13 underwent additional revascularization attempts but still required an amputation and the remaining 24 did not require an amputation. Of the 24 limbs with early graft failure not requiring amputation 7 underwent graft redo. Amputations in the early graft failure group occurred within one month of graft thrombosis in 32 (78%) limbs. Of the 97 limbs with late graft failure and subsequent amputation, 15 underwent redo, 9 underwent revision and 2 underwent thrombolysis, whereas 71 proceeded to amputation without further attempts at revascularization. Of 115 limbs with late graft failure not requiring amputation 27 underwent graft redo, 7 underwent revision and 1 underwent iliac angioplasty.

Conclusion: Early occlusion of pedal bypass often leads to immediate major amputation. Additional interventions to maintain graft patency in this setting are often futile. Late failure of pedal bypass is associated with a significantly lower amputation rate.