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## Introduction

Peripheral Artery Disease (PAD) affects 8-12 million people in the United States. It is characterized by narrowing of the arteries of the extremities. Patients with PAD have a wide range of presentation from asymptomatic to life-limiting claudication, rest pain and non-healing ulcers. Patients who have rest pain and non-healing ulcers have the most severe form of PAD known as Critical Limb Ischemia (CLI). Those who receive this diagnosis have very high mortality and morbidity. Patients with CLI have multiple comorbidities. Recent epidemics of chronic kidney disease, and diabetes as well as an aging population have led to an increase in the number of patients who develop CLI. Untreated, CLI will lead to the eventual development of gangrene and wound infections requiring amputation. Those patients who are faced with the prospect of amputation have worse long-term outcomes and lose their independence. This serves as motivation for limb salvage procedures.

Patients are often treated with endovascular or surgical revascularization in an attempt to prevent amputation. After these procedures they are managed by a wide range of physicians who aggressively manage risk factors to improve the chance for wound healing and reduce disease recurrence.

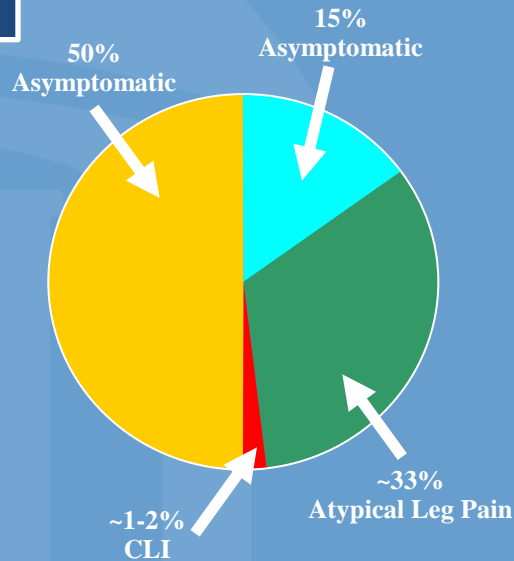


Figure: PAD comes in many shapes and sizes, Wide spectrum of clinical presentations



Figure: Non-healing wounds typical of CLI

## CLI has Devastating Consequences to Patients Within 1 Year of the Onset of CLI

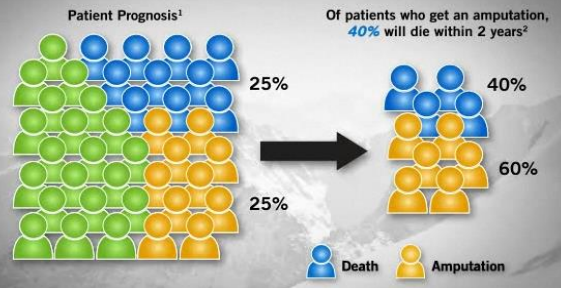


Figure: Patients Diagnosed with CLI face a very morbid prospect.

## Problem Statement

There are few home based exercise programs available to patients with severe PAD. Patients with PAD typically also have heart disease, and cerebrovascular disease, and lifestyle modification have benefits beyond optimizing risk factors.

## Objectives and Goals

10 of 15 patients served by this program will change one or more of the following behaviors for at least 6 weeks:

- Spend at least 2 hours per week engaging in home exercise program
- Ambulatory patients – Walking for 30 mins/day
- Non-Ambulatory patients – Joint mobility and muscle strengthening exercises.

## Results and Future Directions

- 24 patients with PAD and CLI participated in the program
- 15 patients stayed part of the program for over 3 months.
- 7 patients stayed in the program for over 6 months.
- 5 patients stayed in the program for over 9 months.
- Integrate home based program with UNC REX Cardiac Rehab service.
- Develop CLI specific goals for rehab

## Acknowledgments

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## References

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