There are many perceived barriers to amputee patients. These can be best summarized as 5 environmental barriers: Policies, physical/structural, work/school, attitudes/support, and services/assistance.

- Traumatic amputations result in the greatest perceived barriers
- Poverty, comorbidity, sex, and age are significant factors
  - Comorbidity: suffering from two or more chronic diseases at the same time
  - Poverty leads to lack of health and psychological assistance
  - Women and elderly are less likely to perceive barriers
- No medical cure to amputation exists. This leads to a greater likelihood of acceptance of depression
- 9+ hours/day using a prosthesis leads to 50% fewer barriers in attitudes/support and 70% fewer barriers in services/assistance
  - Greatly attributed to appearing less disabled in the public eye

Exercise and Amputation

- LE above-knee amputation: bicycle ergometry training and/or Schwinn Air-Dyne ergometer (involves both upper and lower musculature) improved cardiovascular fitness and walking efficiency
- Many lower extremity exercises can be performed without special adaptations to a prosthesis
  - Running, Sprinting, and swimming may require specific prosthetics
- Almost all upper extremity (UE) exercises can be performed with a prosthetic
  - Doing these exercises standing or with feet on the ground are important for balance and stability
- Stretching is important to maintain strength in muscles in remaining limb
- It takes significantly more energy to walk with a LE amputation
  - 10-40% for below-knee
  - 60-100% for above-knee

Diabetes and Lower Extremity (LE) Amputation

- Average age of amputation for diabetics is 64 years old
- Diabetes leads to improper foot sensation, therefore lack of proper foot/LE care.
- Foot care and not smoking very important to prevent amputation with diabetics or anyone with atherosclerotic peripheral vascular disease
  - Atherosclerotic peripheral vascular disease:
    - Lack of blood flow
  - Proper foot care and not smoking are also important to prevent amputation of remaining limb
- Knowing how and why foot care and no smoking is important can greatly increase likelihood of compliance and reduce risk of second amputation by 50%
- 61% of diabetics with one LE amputation believe they will eventually lose their other limb
- 83% believed foot care would make a difference in secondary amputation
- Amputees who currently smoke are significantly less satisfied with their life leading to less chance of care for their remaining limb

