



2020 Amputee Coalition National Conference

# **My Prosthesis works great. What about my other leg?**

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 **Hanger Clinic**  
*Empowering Human Potential*



# Disclosure Statement

- We have the following relevant relationships in the products or services described, reviewed, evaluated or compared in this presentation.
- **Hanger Clinic:**
  - The speakers are paid employees of Hanger Clinic and receive a salary.



# Course Outline

35 minute presentation with 10 minutes for questions

- Limb Loss Statistics
- Risks to Sound-Side
- Goals of Prosthetic Rehabilitation
- Your Health Care Team
- Lifestyle and Caring for your Sound-Side
- Solutions for Sound-Side Challenges
- Quality of Life
- Questions
- Thanks!





# Goal: Safety, Preservation and Prevention

1. Establish safe/efficient prosthetic gait
2. Preserve the sound side limb
3. Prevent secondary complications





# LIMB LOSS STATISTICS

**2.1**  
million

PEOPLE ARE LIVING  
WITH LIMB LOSS IN  
THE UNITED STATES.



**3.6**  
million



PEOPLE WILL BE  
LIVING WITH LIMB  
LOSS IN THE UNITED  
STATES BY 2050.

**36%**

OF PEOPLE LIVING WITH  
LIMB LOSS EXPERIENCE  
DEPRESSION.



**507**



PEOPLE LOSE A LIMB  
EACH DAY.

Statistics courtesy of the Amputee Coalition.



# What happens after lower limb amputation?

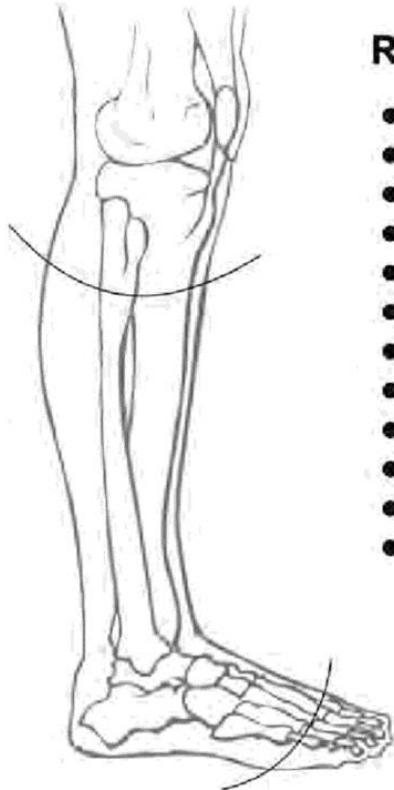
1 in 6 have sound-side amputation

- Extracted from a published analysis of 9,959 patients (published 2018).
- “Healthcare professionals should develop strategies for [sound-side] limb preservation in individuals with existing [lower limb amputations].”



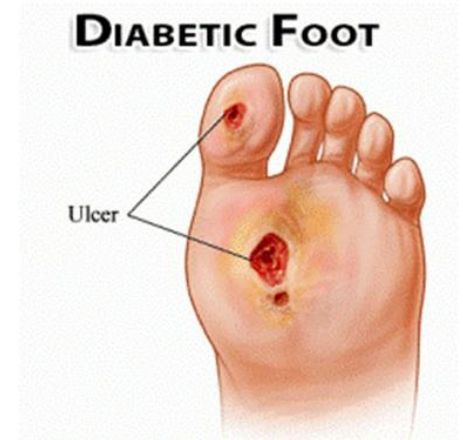


# Risk Factors for Amputation



## Risk Factors for Amputation

- Neuropathy LOPS
- Peripheral arterial disease (PAD)
- Infection
- History of prior foot ulcer or amputation
- Structural foot deformity
- Trauma
- Charcot foot
- Impaired vision
- Poor glycemic control
- Older age
- Male Sex
- Ethnicity (greatest rates in blacks & Hispanics)





Empowering Human Potential Together

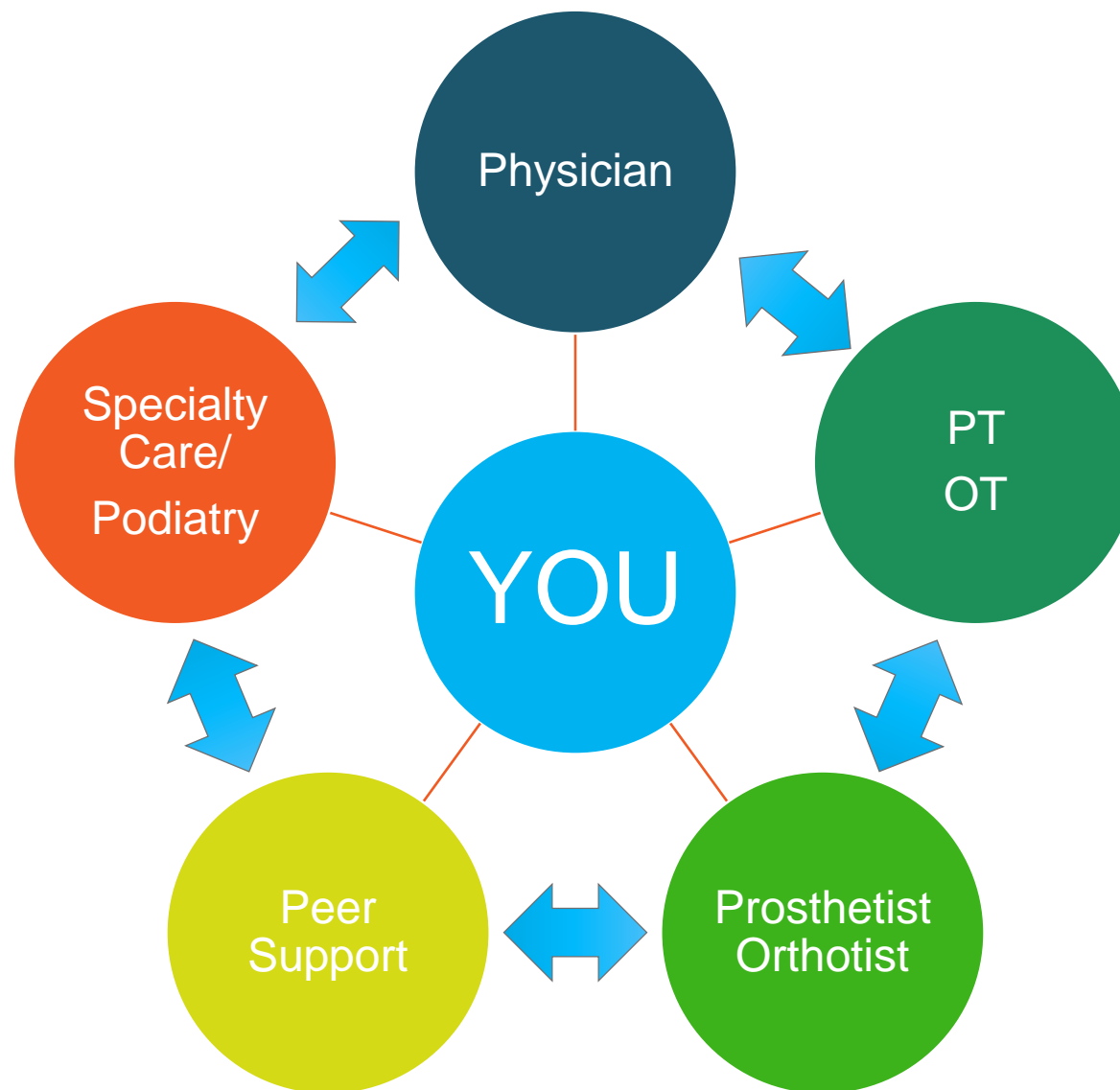
# **Roles in the Team Approach**

6 Members of the Care Team



# 6 Team Members for Amazing Outcomes

Starts with YOU





# Physician(s)

Oversee the entire care team

- Vascular
- Family Medicine
- Internal Medicine
- Physiatrist (PM&R)
- Endocrinologist
- Orthopedist
- Podiatrist





# Physical and Occupational Therapists

Create the rehabilitation plan

- Post-fitting plan to improve
  - Range of Motion
  - Strength
  - Gait
  - Balance
  - Coordination
  - Agility
  - Function
  - Endurance
  - Fall Prevention
  - And minimize fatigue for the amputated and sound-side limb





# Prosthetist and Orthotist

- Pros-the-tist
  - a specialist in design, fit, function of replacement of limbs with a (Prosthetic)
- Orth-o-tist
  - A specialist in design, fit, function of (orthotic) support devices for all parts of the body
- Patient assessment
- Prosthetic/orthotic design and fitting
- Sound-Side limb preservation
- Shoes with protective inserts
- Sound-Side ankle or knee support
- Education skin and device care
- Peer Support





# Peer Support



- [Amputee Coalition](#)
- [AMPOWER](#)
- Local support groups
- Your prosthetist



# Specialty Care: Podiatrist, Nutritionist, etc.

- Check feet regularly
- Check nails regularly
- Eat healthy
- Establish a healthy routine





# Caring for the Sound Side



# Sound Side Limb Care Options

All need prescription from Physician

- **Therapeutic footwear:** (Diabetic or accommodative footwear)
- **Diabetic and orthotic inserts:** (properly distribute weight and reduce pressure and or friction on foot)
- **Orthotic Brace intervention:** (Manage drop foot, ankle or knee weakness and balance)



Image: Mercy Medical Supply



Image: mynjpodiatrist.com



Image: journallactionregionale.com



Image: Osskin.com



# Exercise Daily

Keep your sound side healthy

- Therapy should be considered a daily exercise
- Don't stop just because you have limited time with a trained Physical Therapist
- Preparatory therapy exercises following surgery
  - strengthen the trunk
  - strengthen the arms
- Train the joints near the amputation location
- Sound side limb strengthening program





# Stop Smoking



Image: FDA.Gov



Image: Vascular.org



Image: Smokefree.gov

### Buerger's Disease

- Only in smokers
- Causes poor circulation in feet and hands
- May lead to tissue death and amputation
- Gets worse the more you smoke




Image: Pinterest



# Everyday Vigilance

- Establish your medical care team (See your doctor regularly and at the first sign of any callus or skin breakdown)
- Regularly Check Blood Sugar (if Diabetic), Cholesterol, and Blood Pressure
- Eat Healthy and Stay Active
- Maintain proper hygiene (Clean your feet with soap and water to avoid bacteria)
- Be Careful When Cutting Your Nails
- Make Sure Your Shoes Fit
- Prevent Infection of Feet
- Learn to use walking aids as needed
- Learn safe mobility techniques with transfers, ramps, slopes stairs, wet or icy surfaces, in and out of tub or shower





# Your Role in Healthy Limb Care

**Foot care for patients with diabetic neuropathy**  
When nerves to the feet are damaged, regular foot care is important.



Clean feet daily and use moisturizing lotions.



Perform daily foot self-examination. Use a mirror if you cannot directly see the bottom of your feet.



Check shoes for tears and sharp edges.



Daily foot self-examination should include careful inspection for redness, cuts, swelling, and blisters.





# Visit your Prosthetist twice per year

Maintain proper fit and alignment

- Your prosthetist will review proper fit, function and alignment of prosthesis. This will help reduce contralateral limb overuse and support equal weight distribution in both limbs.



Theoretical alignment

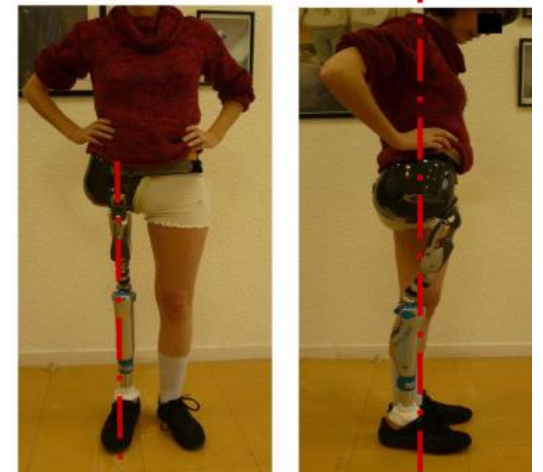
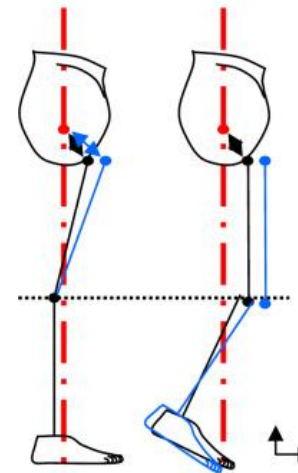


Image: Science Direct



# Don't Wait!

Communicate early

- An important part of sound side limb health is to communicate early about any symptoms or challenges you have. Commonly many people wait too long to ask for support. In many cases balance, stability, deformities, pain, wounds and skin abrasions could be avoided if the proper limb care was established early.





# Quality of Life

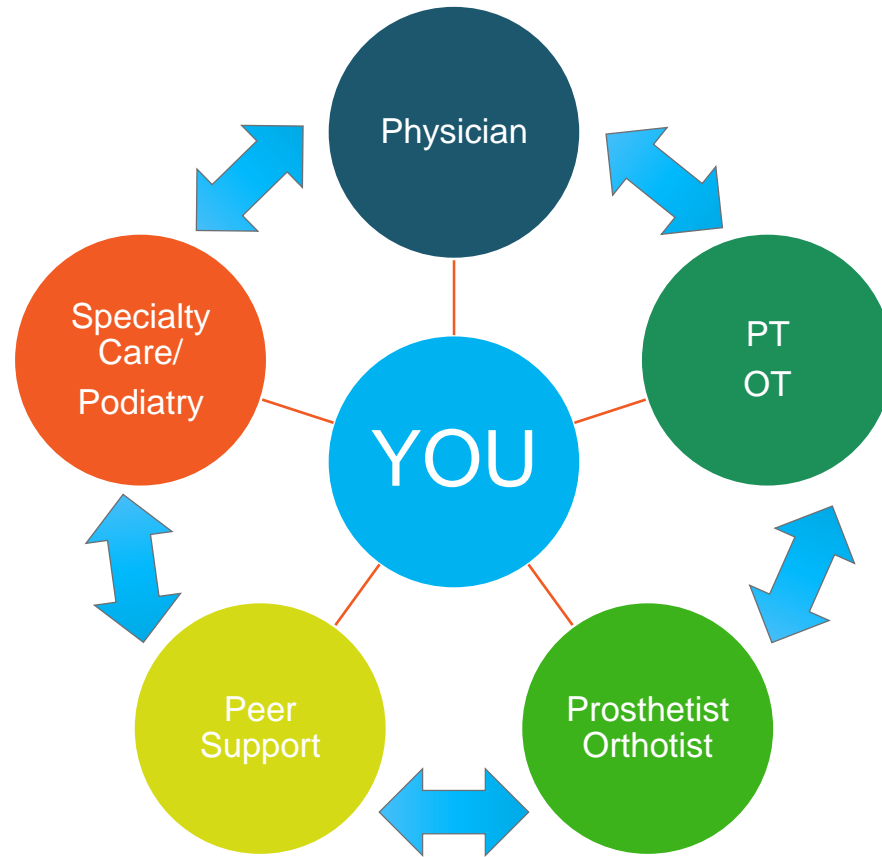
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# Stay Healthy

Enjoy life





**Thank you!**

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**Specialist**

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# References

- Huseynova, K., Sutradhar, R., Booth, G. L., Huang, A., & Ray, J. G. (2018). Risk of contralateral lower limb amputation and death after initial lower limb amputation - a population-based study. *Heliyon*, 4(10), e00836. <https://doi.org/10.1016/j.heliyon.2018.e00836>
- <https://twitter.com/academyofoandp/status/1116423120905281536>