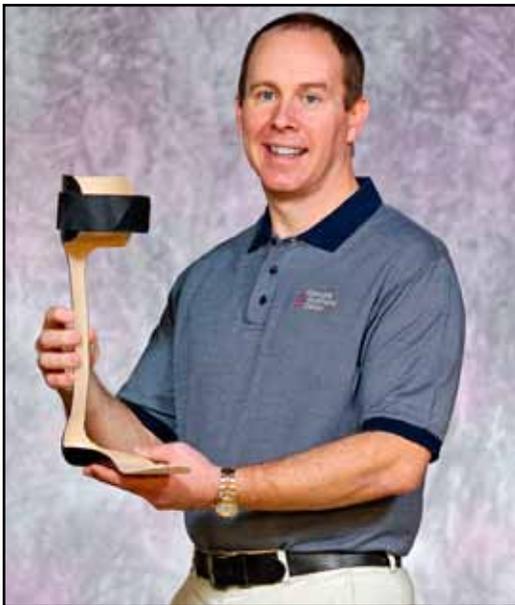


## DYNAMIC BRACING SOLUTIONS

Mike Dailey of O & P Design has introduced many patients and healthcare professionals to the improved patient outcomes of dynamic bracing. Mike is one of the few practitioners in our area to have extensive experience with this type of bracing. The dynamic brace is best utilized for a person with physical limitations of the lower extremities. Those limitations



include skeletal deviations that lead to deformities and functional deficits that impair normal gait. This design can work well with any neuromuscular disorder, paralysis, or weakness. It outperforms conventional bracing regardless of composition, by featuring a light weight compact design. Due to the carbon graphite composition, this brace

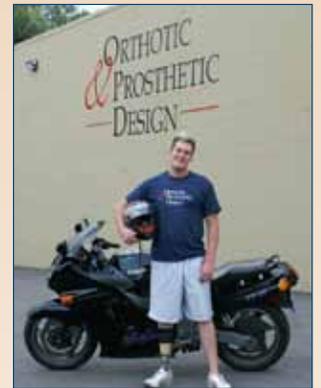
affords stability without the additional size and weight of similar devices. Mike has spent many hours perfecting the design and fabrication of this device and works closely with our in-house technicians to insure the durability and design of each device we fabricate here at our facility.

Patient outcomes have improved due to the dynamic design of this brace. As the brace flexes while walking, it provides a dynamic response and a dynamic variable control system for the knee. The dynamic response propels the limb forward to return energy to the body assisting in ground clearance. Control of the knee is achieved with a variable, progressive resistance from the orthosis when walking. This prevents the knee from buckling, while offering the possibility of more efficient and secure walking. Mike works closely with doctors and therapists during rehabilitation of their patients using this device; to insure understanding of the brace; as well as fit and function of the device.

Mike would be happy to do an in-service regarding this type of bracing for healthcare professionals wanting additional information. If you're a patient needing a brace that affords stability without the additional weight and size of what you're currently wearing, give one of our offices a call.

Volume 2 • Issue 1 • 2009

### Page 2:



**Danny Parish -  
Born To Ride**



**Diabetic Foot  
Care**

### Page 3:



**Trivia Night  
American Style!**

## Danny Parish – Born To Ride

**D**anny Parish was a 23 year old union carpenter who had a passion for street bikes when his life took a tragic turn in 2005. In April of that year Danny

was involved in a motorcycle accident which resulted in the amputation of his right leg below the knee. Instead of giving up Danny pushed through months of painful rehabilitation and was fit with his prosthetic leg in June. By July of that year Danny was walking to the parade

grounds on his new prosthetic limb to watch the Fourth of July fireworks display in his hometown. Danny and his prosthetist, Mark Wilson worked together closely for many months during his gait training and rehabilitation insuring the fit and function of his prostheses was exactly what Danny needed to enhance his lifestyle.

The Harmony Vacuum Assisted Socket System was chosen for Danny due to his active lifestyle. The Harmony System uses elevated vacuum to securely hold the prosthesis in place for a secure fit all day long. The improved fit helps amputees walk with a more natural gait cycle. As the Harmony System pulls air out of the socket, it helps promote residual limb

health through improved circulation, pressure points are relieved for greater comfort all resulting in less skin irritation and breakdown, as well as a better socket fit all day long.



With conventional prostheses, some of the air between the liner and socket is released through a valve. The Harmony System complements the valve mechanism with a pump; while swinging the leg forward, the pump sucks air from the

socket, thereby achieving five to six times as much vacuum.

A year later Danny was back riding his motorcycle and enjoying his freedom on the road. Danny doesn't feel disabled, but whole again, and is especially happy to enjoy his street bike hobby once again. Danny reports that sometimes he forgets he's disabled at all! Since Danny's accident he has decided to change career paths and he is currently attending school to become a certified prosthetist; so he can actively help change peoples' lives for the better! Danny works part-time at Orthotic & Prosthetic Design, Inc. as an orthotic and prosthetic technician while going to school.

## Diabetic Foot Care

**Patient Education can ease the disease's debilitating effects**

**L**ast Year, diabetes was the underlying cause of some 90,000 amputations in the U.S., according to professors at UCLA. The connection between diabetes and foot problems occurs for several reasons, according to the American Diabetes Association (ADA). Most common is a form of nerve damage called neuropathy, characterized by loss of feeling in the feet. As a result, if the patient is unaware of a foot injury, an irritation may become a wound and then become infected. This type of nerve damage along with lack of sensation in the feet can lead to deformities in the feet and toes causing ulcers which are very difficult to heal.

Effective treatment of the diabetic foot must begin with the patient's own commitment to self-care and examination. Patients should get regular exercise and examine their feet daily for any abnormalities. They should keep their nails trimmed straight across, leaving plenty of room out from the nailbed, and should report any trauma of the foot to their doctor. Most patients with diabetic foot ulcers have lost the feeling in their feet, so unlike healthy patients with good sensation, diabetic patients will report that their shoes and foot orthotics feel great. It is important for the patient and their healthcare professional to meticulously inspect the orthotics and shoes to ensure a proper fit. Make

*continued on back page*

## Trivia Night American Style!

On March 14th, the Missouri Coalition for People with Limb Loss (MCPLL) hosted a Trivia Night to raise funds for Prosthetic Parity. The event was held at the Lodge in Des Peres and raised \$9,711.00 in funding for this worthy cause. Event sponsors included O & P Design, Guard Industries, Ossur, Bluff Prosthetics & Orthotics, Leo G. Stein, Southern Prosthetic Supply, O & P Labs, Richard Schumacher, Sandra Freeman, Hanger, P & O Care, Otto Bock, Fred & Amy Schaumburg, as well as Jeff & Allison Damerall.

The Trivia Night theme was “All Things American” the emcees were in the spirit of the evening dressed in red, white, and blue with Uncle Sam hats! There was a silent auction that included themed baskets, Fox tickets to “A Chorus Line”, and Cardinals Baseball tickets. Attendees enjoyed spirited trivia competition, as well as soda and snacks provided by event sponsors. Recognition was given to the teams with the highest and lowest scores.

The MCPLL was formed in 2007 and the group is comprised of individuals that include prosthetic patients and individuals from O & P companies helping to get prosthetic parity legislation passed in the state of Missouri.



*The event was held at the Lodge in Des Peres  
and raised \$9,711.00 in funding*

## Diabetic Foot Care continued from page 2

Make and keep regular appointments with your pedorthotist/ orthotist to help maintain proper fit of your footwear.

Michael J. Mueller, associate professor of physical therapy at Washington University School of Medicine in St. Louis, has recently served on the Foot Care Interest Group, an ADA task force. “The task force recommends follow-up foot exams every three to six months if the patient has loss of protective sensation (LOPS) and every two to three months if the patient has peripheral arterial disease (PAD). Those patients with a history of foot ulcer or amputation are in the highest risk category and should be seen every month by a specialist”, says Mueller. Orthotic & Prosthetic Design, Inc. provides the shoes and foot orthotics used by the participants enrolled in Mueller’s current foot study program. Mueller and his team of researchers are currently conducting a study using sensors buried in the foot orthotics which can detect temperature changes in the foot that indicate pressure imbalances in the diabetic foot patient. Researchers continue to study the effect diabetes has on the feet and anticipates an improved management and outcome for this disease.



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