



# LEIMKUEHLER *IMPACT*

ORTHOTIC & PROSTHETIC CENTER, INC.

**Specialists in  
Prosthetics & Orthotics  
Since 1948**

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*SPRING/SUMMER 2016*

## A PASSION FOR RUNNING – AND HELPING OTHERS

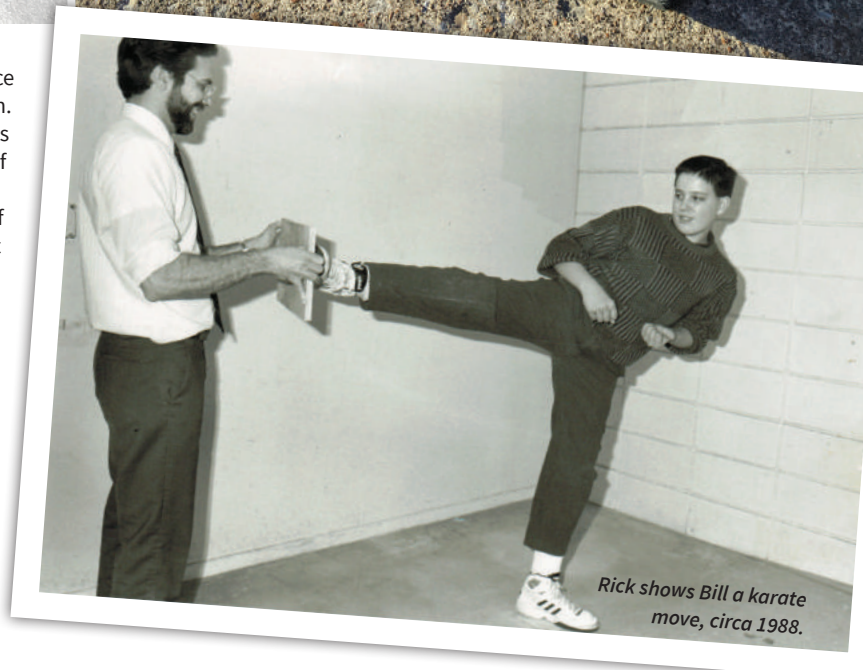
**H**uron Township resident Rick Lynch has been an amputee since the age of 12, but he has never let his limb loss slow him down. From junior high on, he persisted in making the most of his opportunities. Today, the 41-year-old pursues his passion of running.

That is no surprise to his prosthetist, Bill Leimkuehler. "He is one of my most active patients," Leimkuehler said. "He never complained about his amputation. He accepted it and moved on."

The story of Rick's traumatic injury, which led to his amputation, is a chilling one. While doing chores on a farm, he slipped and fell into an industrial conveyor belt. His foot was twisted 180 degrees and he was trapped in the machine for an hour until emergency personnel cut through the machine to free him.

Rick was awake the entire time. Because the machine pinned him so tightly, he had little blood loss, but the pain he remembers was excruciating. Life-flighted to Cleveland, he spent three months in the hospital while doctors tried to save his leg. After multiple surgeries, he made the decision to amputate, rather than spend his entire life with a debilitating limp.

From his first prosthesis from Bill Leimkuehler in 1987, he pursued



*Rick shows Bill a karate move, circa 1988.*

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Photos by Jason Werling, courtesy of Funcoast Magazine/Sandusky Register

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sports diligently and made the basketball team in junior high. He was the slowest member of the team, but the coach let him play anyway. Rick worked daily to improve his skills and ended up playing varsity at Norwalk St. Paul High School. He also played golf, tennis and baseball.

Rick was also featured in a Leimkuehler newsletter when he was in high school and needing prosthetic replacement on a regular basis. At the time he was wearing an early generation of Flex-Foot because of his level of activity. He said then, "I broke it in spots Bill hadn't heard of before."

Bill Leimkuehler agrees prosthetics have come a long way with much advancement in the past 20 years. "Rick didn't have the option for high-performance, lightweight running blades or bionic feet controlled by sensors. Amputees today have many more options to suit their lifestyle, function and mobility needs," he said. "I expect to see many more advancements in the field with robotics, implants, and 3-D printing."

When he runs, Rick wears a lightweight high-energy prosthetic foot – Catapult Running from Freedom Innovations. The Catapult Running Foot is a significant advancement in prosthetic running feet. Runners and sprinters can experience technology that advances energy return allowing them to run farther and faster with less effort. Since receiving the foot in 2013, Rick said it is the first time he felt like he could run normally. Without the lightweight foot, he developed sores from the repetitive motion.

"Not being able to (run) when I was younger, and being to the point where the technology has allowed me to do it, has been exhilarating," Rick was quoted as saying in a Funcoast Magazine article "Blade of Glory."

Rick runs races not only for the joy of running and pushing himself to better his time but to help raise awareness and funds for Amputee Blade Runners (ABR), a nonprofit that helps provide free running prosthetics for amputees.

He posts on a fundraising page: "My running blade allows me to run faster and farther than I ever have before. It allows me to achieve my full running potential. I run races throughout the year to help raise awareness and funds for ABR, and I am motivated to help other amputees experience the freedom and exhilaration that these running blades can offer."

## Pediatric Orthotic Solutions from Cascade

Leimkuehler offers a wide variety of pediatric orthoses to help patients with lower limb weakness, deformities, spasticity, and gait deviations. Among the products used to improve function and ambulation is the Cascade DAFO (Dynamic Ankle-Foot Orthosis). Children easily adapt to the DAFOs because they are thin and flexible, yet durable under normal wear. A DAFO encourages range of motion, allowing children to learn movement by moving and providing minimal support, only where the patient needs it. DAFOs are frequently prescribed to assist with mobility and motor skills of children with cerebral palsy, spina bifida, muscular dystrophy, clubfoot and autism.

### CASCADE DAFOs INCLUDE:

The DAFO 2 is a hinged brace for inconsistent ankle modulation, excessive plantarflexion-toe walking, and hyperextension. Features wrap-around foot control; hinged ankle control blocks plantarflexion and allows full dorsiflexion. The DAFO 3 is for smaller/younger patients (birth to three years).

The DAFO 9 is an adjustable stretching-positioning brace. Calf muscles and tendons are gently stretched to increase range of motion while maintaining foot and ankle alignment. The DAFO 9 may be used for limited daytime use and/or as part of a night-stretching program.

Fast Fit® Chipmunk® Sub-Malleolar Prefabricated Orthosis is for the moderately-pronated pediatric foot. Its advanced design offers separate internal alignment and external stability, allowing each of these components to

function well without compromise. For such a low profile, this sub-malleolar solution provides an unprecedented degree of support.

Tami2 is ideal for active ambulators who would benefit from additional medial-lateral support due to strong excess pronation or supination. For patients having trouble with drop foot during swing phase, the design can include dorsi-assist joints.

The JumpStart products are intended for patients with pronation, supination, inconsistent ankle modulation and knee hyperextension. The products use a precision-molded double shell for both wrap-around control and extra heel stabilization.



# INNOVATIVE PROSTHETIC TECHNOLOGY AVAILABLE FROM LEIMKUEHLER

## PLIÉ KNEE



Freedom Innovations' microprocessor-controlled Plié® Knee 3 is designed for amputees seeking a knee that adjusts to walking, running, uneven terrain and occasional water exposure. It uses advanced algorithms to control stance and swing, and stumble recovery parameters. These parameters are customized for each user's unique gait pattern, providing confidence that stance resistance will be there over a broad spectrum of activities.

The Plié 3's rapid response technology delivers a more natural transition from swing to stance. With the technology's resistance based on swing flexion and not speed, the resulting effect is an instinctive action that for the user feels more like a biological knee and

reduces the amount of effort and energy used by the amputee.

With the most responsive stumble and fall protection, users can instinctively move at their own pace in any direction - even if it's taking small short steps or pivoting in confined spaces.

The water-resistant coated electronics give wearers peace of mind when enjoying the outdoors. The Plié 3 can be safely submerged in fresh, shallow water for up to 30 minutes at a time.



### Features and benefits of the Plié:

- Adjusts to walking, running, uneven ground, and occasional water exposure.
- Provides responsive stumble and fall protection.
- Allows you to move at your own pace in any direction.
- Reduces amount of energy and effort required to walk.

**The knee is designed for:** K3 amputees that need customized stumble recovery for a variety of activities; high K3 and K4 amputees that need a knee that adjusts to both walking and running; ambulate with variable cadence on uneven terrain; and have adequate hip strength in flexion and extension.

## FREEDOM AGILIX

### Maximum Shock Value

The Freedom Agilix™ is a multi-axial, shock absorbing flexible foot system designed to manage loading impacts, reduce socket shear forces and improve comfort while walking on nearly any terrain. The ultra-lightweight design offers K3 ambulators shockingly comfortable performance at a value like no other.

### Features and benefits

- Vertical shock absorption and carbon fiber flexibility optimized for low to moderate impact K3 ambulators; reduces socket shear forces and improves overall comfort.
- Multi-axial function increases ground compliance and stability.
- Streamlined, split-toe design results in improved long-term durability, saving time and money.
- Full length dynamic heel attached at the toe ensures a seamless roll-over, for superior comfort and a more symmetrical gait.
- Lower profile and lighter weight than the competitive alternative, allowing users to do more and feel less tired at the end of the day.





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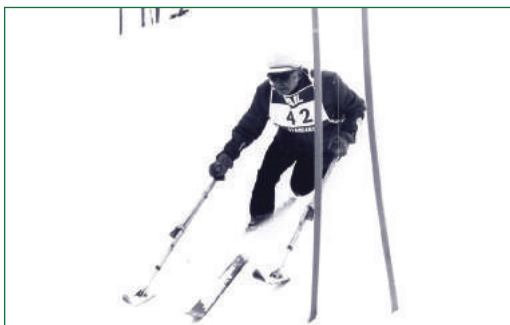


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## PREVIEW OF PAUL LEIMKUEHLER DOCUMENTARY ON YOUTUBE



[www.youtube.com](http://www.youtube.com); enter *Ski Pioneer* in the search box

Katie Leimkuehler, granddaughter of our founder, Paul Leimkuehler, is producing a documentary about Paul's work and triumphs in the sport of skiing after he became an amputee in WWII.

Paul was inducted into the Ski Hall of Fame in 1981 for designing outriggers that amputee skiers still use today. He was also awarded the Purple Heart and inducted into the Ohio Veterans Hall of Fame.

The trailer of "Fresh Tracks: A Story of Ski Pioneer," can be viewed on [www.youtube.com](http://www.youtube.com); enter *Ski Pioneer* in the search box.

## You're Invited to ...

### The Leimkuehler Amputee Support Group Picnic

Wednesday, June 29, 2016 – rain or shine

Leimkuehler O & P Center, Inc.  
205 North Leavitt Road  
Amherst, Ohio  
(440) 988-5770

**6:00 - 6:45 p.m.:** Introduction & Get Acquainted

**6:45 - 7:30 p.m.:** Picnic

**7:30 - 8:30 p.m.:** Informal discussions and question & answer session

**We will provide hot dogs, hamburgers, and beverages.**

**Please bring a dish to share.**

**RSVP: Please call by June 20th and let us know if you will attend.**

*We look forward to seeing you there!*