

THE ToeOFF® STORY

In 1997, Allard introduced the first carbon composite AFO with the brand name ToeOFF®, that revolutionized the O&P market for products to manage foot drop. But, we didn't stop there! We became committed to developing more carbon composite AFOs with varying degrees of support and dynamic response to meet different individuals' anatomical, biomechanical, and lifestyle needs. The following stories share our development history of, as well as how we continually strive to increase public awareness of our innovative solutions available to offer "Support for Better Life".

THE BIRTH OF TOEOFF®

EDUCATION BECOMES PILLAR OF OUR GROWTH

BLUEROCKER® - FROM CRAZY IDEA TO SUCCESS

WHEN NORDIC COMPOSITE BECAME ALLARD MANUFACTURING

GIVE US A TOEOFF® FOR CHILDREN - KIDDIEGAIT®

I HAVE FOOT DROP- NOW WHAT?

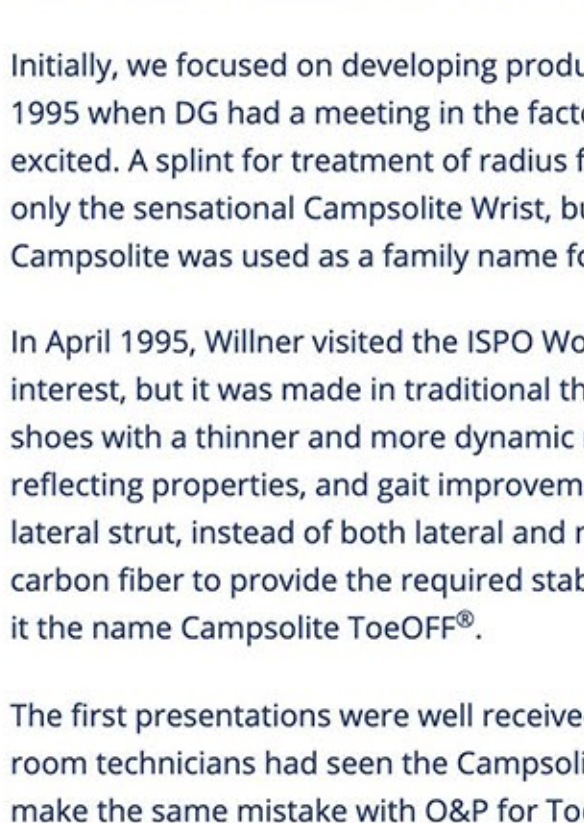
TOEOFF® 2.0 - YOU ASKED, WE LISTENED!

FLOW - THE INNOVATION CONTINUES

THE BIRTH OF ToeOFF®

THE START

17th of May 1987, a Development Group (DG) of Camp Scandinavia (CS), including Dr. Stig Willner, CPO Gert Karlsson, R&D Helena Peters and me, CEO of CS at that time, gathered at Snogeholm Castle. 17th of May is therefore an important day not only in Norway, but also for Allard/Camp as my son, Peter Allard, also took over the company that same date 19 years later, in 2006.



Stig Willner was a spine doctor that had developed several products for CS, but none with major significance in sales. The DG had as a task, to describe/define a new orthotic material and then find a manufacturer. The material was defined but a manufacturer of a non-existing theoretical material was a challenge. After visits to several professors and universities, we found the solution next door to Willner's home. Malmö Komposit was an expert in composite materials within the train and aircraft industries and the owner, Karl Engdahl, soon became a close partner with Willner.

Initially, we focused on developing products for the spine, which was natural with Willner's background. Then, one day in 1995 when DG had a meeting in the factory, they were presented to a composite wrist splint that made them very excited. A splint for treatment of radius fractures was soon in place and in the market, but DG decided not to stop with only the sensational Campsolite Wrist, but also create a new AFO, different to what the world had seen before. The name Campsolite was used as a family name for the new series of composite orthoses from Camp.

In April 1995, Willner visited the ISPO World Congress in Melbourne. An AFO with anterior support caught Willner's interest, but it was made in traditional thermoplastics. The combination of an anterior solution to better fit in the normal shoes with a thinner and more dynamic material from composites started a thinking process in the factory. Energy reflecting properties, and gait improvement at both heel strike and toe-off was a brilliant formula. The concept of a lateral strut, instead of both lateral and medial was another magical ingredient. The lateral strut used the strength of the carbon fiber to provide the required stability! Due to the amazing improvement in toe-off phase in the gait cycle, we gave it the name Campsolite ToeOFF®.

The first presentations were well received, and early gait studies proved very good results. We remembered that the cast room technicians had seen the Campsolite wrist splint (that died in 1999) as a threat to their skill. We didn't want to make the same mistake with O&P for ToeOFF® so in the beginning ToeOFF® had no attached straps, requiring work for the orthotists to do, so they would feel needed in the fitting process! This initial strategy helped us convince the O&P facilities that we were partners and not enemies. Our reimbursement code in the USA was another big step forward! Willner's devotion to clinical documentation set the valuable foundation for the medical community recognition of the functional and patient compliance benefits offered by ToeOFF®.

In 1996, I acquired Camp Scandinavia from Bissell Inc. At that time, we removed Campsolite and used only ToeOFF® as a name, and our international name became Allard. In 1998 at a big Gala, Willner and Engdahl, the true inventors of the ToeOFF®, were awarded with a prestigious Innovation Prize and in 1999 Willner received the "Thranhardt award" in USA. The Lecture at AOPA for the Thranhardt award was presented by Orthotist Jan Smits, an important partner in the ToeOFF® design team, as Willner had died soon after the award. The diploma and the award was handed over to Stig's wife Eva.

It was a tragedy that Willner passed away in 1999 before ToeOFF® had fully started to take off, so he could have experienced all the recognition of a "dream product". I am proud of having been involved in bringing such a fantastic successful product to the world market, a once in a life-time experience. I am sure that Stig Willner would have shared my view that "changing peoples' lives" was and is still the major reward for this outstanding innovation!

ToeOFF®

Bertil Allard

EDUCATION BECOMES PILLAR OF OUR GROWTH

CHAIN REACTIONS

As an educator, I became an avid believer and follower of the gait biomechanical concepts developed by Gary Gray, PT, ATC, and presented in his "Chain Reaction" courses. When I first picked up a ToeOFF®, I immediately could see how the open heel, anterior support, and carbon composite reflective properties would totally support these biomechanical concepts. But these concepts were well known to physical therapists and for the most part virtually unknown to orthotists. We were also faced with the challenge of convincing orthotists this custom-fit product would ever provide the intimate fit and stability of their hand-crafted plastic AFOs.

I worked closely with Scott Fisher (PT trained by and worked with Gary Gray) to develop a 4-hour gait biomechanics course. The course detailed normal functional biomechanics and then compared the impact that both traditional molded plastic and ToeOFF® had on function. The take-home message of the course was that traditional devices may help pick the foot up during swing, but ToeOFF® helped restore gait function.

I quickly saw that Physical Therapists were key to prescribing AFOs, so they had to be convinced to change their prescribing habits. Orthotists fit the device so they also had to be convinced to change their practice protocols. The courses proved to be successful with both groups. PTs started demanding the product for their patients and orthotists became more willing to fit it. Once the orthotists and PTs "got it", they started sharing stories of how they were using ToeOFF® for conditions other than just footdrop. This led me to add management of soft tissue dysfunctions (i.e., Achilles Tendinopathy, PTTD) and partial foot amputations to our education programs.

My conservative estimate is over 50,000 medical professionals have been influenced by the Allard courses in the US alone. It can now be said that as carbon composites revolutionized the prosthetic industry in late 80's, Allard's ToeOFF® has revolutionized the lower extremity orthotic industry. I have enjoyed the journey!

Robert H. Meier



BlueROCKER® - FROM CRAZY IDEA TO SUCCESS

I started working with composite products back in the end of the 70's, manufacturing products for the military and air force industries. I came in contact with the orthopedic world in the beginning of the 90's and I have to admit that working with products giving support for better life is a lot more rewarding.

Developing products for the orthopedic industry, we constantly get challenges and ideas from the users for development of better products, but playing around with crazy ideas in our laboratory can also lead to the development of commercial products and BlueROCKER® was one of these cases. The development team got an idea to develop an extremely thick and rigid product that could be altered in flexibility by the orthotist. How he would do this was simply by grinding the strut and sole to achieve just the perfect properties for each patient. As we gave it more thought, we determined it was a crazy idea because we had already learned people not trained in composite science could surely damage the products if they try to make their own changes. But we wanted to test this concept anyway and gave out some samples to users who tried this "ToeOFF® on steroids" without any modifications and some of them loved it. We more or less asked them, "How come?" and they claimed that the stability of the product in combination with the rocker sole was just perfect.

The first products we made were black and looked like a ToeOFF®, so we needed to find a way to differentiate the look of this new product to the regular ToeOFF®. We could have changed the shape, but knowing how much the customers appreciated the shape of ToeOFF®, we had to come up with a different solution. Previously, we had received requests from the market to manufacture the ToeOFF® in different colors, and we had looked into this by using different pigments in the matrix of the material. This technique did not turn into a cosmetically acceptable product with the exception of the color blue. Therefore we made the product blue with a nice rocker in the sole and the name of the product was quite obvious. Now, the BlueROCKER® is a well-known brand globally and is the most rigid product in the Allard AFO range. It is amazing how such an ill-conceived idea could become a successful and appreciated product.

Heinrich Jordan



WHEN NORDIC COMPOSITE BECAMES ALLARD MANUFACTURING

Since the birth of the ToeOFF®, it was produced at an externally owned company in Malmö. Collaboration with this external company worked fine for many years but when volumes increased and our demands for quality control and development increased, we started to see that this setup was not allowing us to move as fast as we wanted and we started internally to talk about how this situation could be addressed.

Suddenly in 2006 and 2007, the owner of the manufacturing site in Malmö started to use a significant amount of money and resources on things other than on manufacturing of our ToeOFF® products.

That led to the owner coming to us and asking for financial support, which we did. But when he kept coming back asking for more, we said that we could not be their "extra bank".

The company went bankrupt and came under receivership. The receiver ran the business for some time while he was sorting out the "mess". And then during the summer of 2007, the "business" was officially announced to be for sale.

Anyone that had a potential interest in giving an offer for the business could then come and look at the site to see not only the machineries and materials, but also the process of making the ToeOFF®. Several companies outside the orthotic field went there, including at least one competitor.



Having such an important supplier in bankruptcy made us of course very concerned, particularly as 50 % of the patent rights were included in the bankruptcy, and thereby also up for sale.

We placed an offer for the business for the manufacture of the composite AFO's. The offer did of course include the patent rights that in some way could be said would control the future of ToeOFF®.

The time that the receiver needed to evaluate the offers, from us and others, was an extremely nervous time for us. Relaxing and enjoying summer and vacation was not something that describes the summer of 2007. The

consequences if the business was sold to the "wrong" company would have been dramatic.

Finally we did get the response from the receiver that our offer was accepted! What a relief to all in the Allard organization, not to mention the staff working in the manufacturing in Malmö who wanted nothing but us as new owners.

Allard Manufacturing AB was born on September 10 2007.

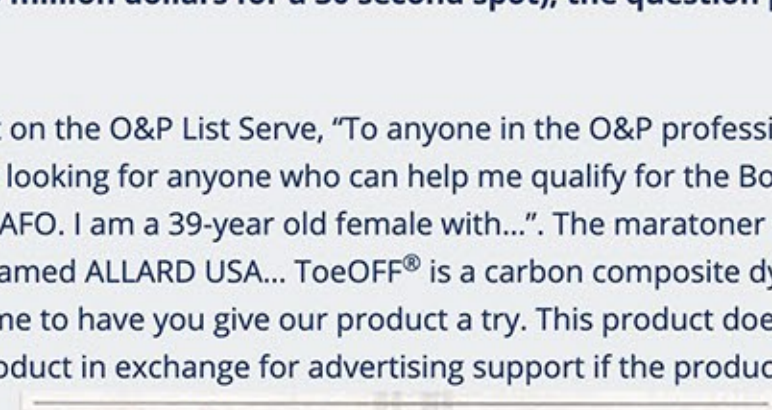
As you can tell by my story, it has not always been a nice dance in the park, but I am very proud of how the loyalty and dedication of our workers, and our planning and investments have helped Allard become recognized as the world leader in the production of the highest quality carbon composite AFOs on the market.

Olle Eklund

GIVE US A ToeOFF® FOR CHILDREN - KIDDIEGAIT®

A ToeOFF® but smaller

Shortly after the ToeOFF® started to become known in the market, we started to have requests for a ToeOFF® for pediatrics. At that time we very much positioned the ToeOFF® as a post Stroke brace for management of footdrop, but today we know that there are many more indications that benefit by an Allard AFO. However when we received requests for a Pediatric AFO, we asked around but we could not see any significant market size for pediatrics with foot drop but we knew that the market for pediatric AFOs with range of motion was huge. So a range of motion AFO made out of Composite was developed and it was unique, different and looked great. I remember how enthusiastic the Team was when we saw the prototype of it in December 2002. We presented it to some key customers but they did not like it at all and after that the Pediatric ToeOFF® project was put on hold.



In May 2007 I was doing a road trip to meet customers in Alabama. We were doing an education course in Birmingham, Alabama and a Physiotherapist had found out that I was there. She had driven by car for 2 hours one way just to tell me that now it is also for a Pediatric ToeOFF®. About 3 months later we had a product development meeting in Stockholm where we also had some people from the US team who told me that they were sure about the potential success of a pediatric AFO "but forget about the joint, just give us a ToeOFF® but smaller". Their "promise" together with the conversation I had with the PT in Alabama convinced me to go for it. Right after the meeting I took a walk with my VP who told me that if we let go of the other projects we had going and focus on the small ToeOFF®, we could introduce the product one year later.

One year later we introduced the KiddieGAIT® and during our European introduction, customers as well as people within the Allard Group were skeptical. But the outcome results presented by a focus group of four of the leading pediatric orthotists in the US at AAOP in Orlando in February 2008 generated new enthusiasm and gradually the line began to grow. Now we know that this product has changed many kids' lives around the world. I was extremely pleased in May 2016 when I was presented a study on KiddieGAIT® from Munich. At the same time, I became friends with 12-year old Trent, a TeamUP Jr. Co-Captain and one of thousands of KiddieGAIT® users. I could see first-hand how KiddieGAIT® made a difference in his life. Thank you USA for pushing us forward to develop KiddieGAIT® which has allowed us to extend "Support for Better Life" to children, starting as young as 9-10 months of age.

Peter Allard

I HAVE FOOT DROP- NOW WHAT?

ToeOFF® Public Relations Story

It all started from the comments I would hear from patients, dating as far back as 1997, "ToeOFF® gave me back my life", followed by "Why didn't my doctor or orthotist know about this product?" Not having a Super bowl advertising budget (in 2016, \$5 million dollars for a 30 second spot); the question presented an overwhelming challenge.

Then, April 17, 2006, I saw a post on the O&P List Serve, "To anyone in the O&P profession with experience helping athletes with AFOs: I'm currently looking for anyone who can help me qualify for the Boston Marathon again—but this time I'll have to do it wearing an AFO. I am a 39-year old female with...". The maratoner was Beth Deloria. I replied to her, "Hi Beth, I work for a company named ALLARD USA... ToeOFF® is a carbon composite dynamic response floor reaction AFO. If you are game, we are game to have you give our product a try. This product does require fitting by an orthotist. We are willing to provide the product in exchange for advertising support if the product works for you..."



Beth called me and she shared how she had struggled for 2 1/2 years, trying both solid and articulating plastic AFOs, but she knew she was never going to realize her dream to finish another Boston Marathon wearing the "clunky and uncomfortable" braces. Beth told the story of how I told her I thought she was crazy to want to run a marathon, but if that is what she wanted to do, we wanted to see if we could help.

Beth received over 70 replies, from the posting. I sent her "free" samples, as did several other suppliers, and her orthotist fitted each of them. She quickly chose the one that helped her function without pain, and it was our ToeOFF®. Just six months later, Beth finished the Chicago Marathon with a personal best time ever of 3:39:26 and would go on to finish the Boston Marathon in 2007 and 2008.

Beth was passionate about the product and wanted to help us "get the word out". This led to the development of our 2012 Public Relations campaign where the strategy was to get media attention as Beth traveled across the country participating in 20+ of the Rock 'N Roll series marathons. To keep the story alive and set the stage to capture even more consumer attention, we established the consumer web site, "GetBackUpToday", where visitors can become a TeamUP member by "putting themselves on the map" and sharing their "get back up" inspirational stories. Fourteen of these TeamUP members from different walks of life with many different causes of footdrop (cancer, stroke, spinal surgeries, MS, CMT, FSHMD, traumatic injury, dystonia) wanted to do more, they wanted to help extend our consumer outreach efforts. These advocates became the Allard USA TeamUP Co-Captains - read all their inspiring stories and those of other TeamUP members on www.getbackuptoday.com.

In 2016, three of our TeamUP co-captains, all wearing BlueROCKER®-all three qualified, and in total, finished with 3 silver and 1 gold for USA.

The TeamUP Co-Captains have been instrumental in helping us increase social media exposure. On Facebook, we have 30,000+ fans! GBUT has over 1500 users and about 3,300 page views/per month. It is fun to watch the exposure to the public continue to grow!

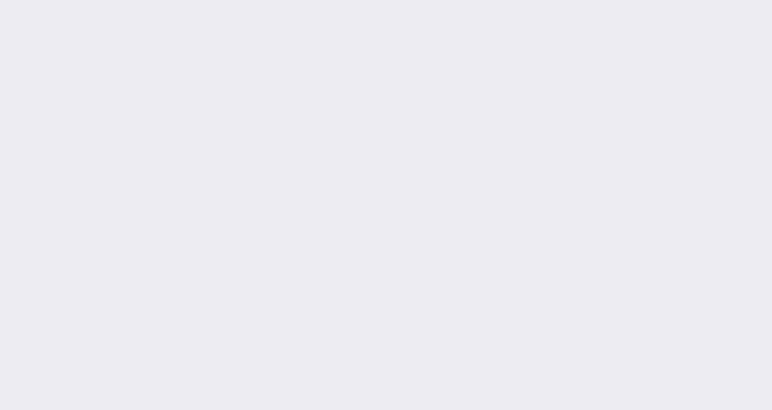
Carol Hiemstra-Paez



TOE OFF® 2.0 - YOU ASKED, WE LISTENED!

A nice ToeOFF® - not a revolution

How do you start to touch a loved product; how do you find the nerve to change something that has had such a huge impact on so many lives? My best way to illustrate our fear to put our hands on ToeOFF® is to compare with a world-wide recognized brand such as CocaCola®. In 1982 the CocaCola® Company launched DietCoke®. This was the first new product under the CocaCola® brand since 1886. The scope and business in a consumer product is totally different from a medical device but the brand recognition among the target group is probably just as high. If you can imagine the anxiety that must have been present within the Coca-Cola® Company before such a prestigious launch, I think you can feel our nervousness of taking the wrong approach with ToeOFF®.



Before the development work started, we made an extensive pre-study to make sure we knew what customers and users were looking for in the next generation of ToeOFF®. After months of investigation, the short summary almost read "We love what we have". This was not much to bring to the engineering team, but internally we moved ahead and developed a specification list that targeted a more durable laminate, a wish of embracing more organic shapes, and making it easier to fit. Both internal and external engineers spent months in the lab setting up a completely new process, leaving no stone unturned. Creating ToeOFF® 2.0, the next generation, was never about revolution. It soon became a project of strengthening the core of the brace and improving the laminate and production methods while holding on to its high functional performance. ToeOFF® 2.0 incorporates advanced technologies that can be utilized within the composite world but has maintained its integrity of being a ToeOFF®. When first launched, many customers were a bit disappointed as what they saw was "just a nicer ToeOFF®". But with ToeOFF® 2.0, it is about more than what meets the eye; it is about maintaining the trust and reputation that were earned over the last twenty years.

Gunilla Ström

FLOW - THE INNOVATION CONTINUES

The next generation of Composite Allard AFOs

Experiences since I started working for Allard 17 years ago. One thing we have learned through the years in the world of Ankle Foot Orthoses is you meet patients with the same diagnosis in their lower extremity, but almost all require a different type and amount of support from their AFOs. This is why we strive to offer Composite AFOs with different dynamics to meet individual patient needs.

From our experience with ToeOFF® 2.0 (2014) and BlueROCKER® 2.0 (2015), we learned a lot and it resulted in the launch of Ypsilon® Flow toward the end of 2016. We know users sometimes choose Ypsilon® instead of ToeOFF® when they have the opportunity because of its flexible, neat and airy design. In recent years, customers also asked us to adapt more to accommodate new shoe fashions with lower heel height, and to offer even more dynamics in the AFO.

We moved from the world of plaster prototypes into making our prototypes and molds using CAD/CAM (Computer Aided Design/Computer Aided Manufacturing) technology. We changed layup technique to increase the dynamics and lowered the heel height. We also changed design in the upper shin plate and ended up with Ypsilon® FLOW.

Now patients can have more Range of Motion and still get a good lift during swing phase and also get nice propulsion. With this new technique we will develop a new generation of Composite Allard AFOs, named "Flow". One more evolution to offer "Support for better life" for even more patients.

David Nordenberg Steiman

