LWL

AUTUMN 2020

AN ÖSSUR MAGAZINE ABOUT **LIFE WITHOUT LIMITATIONS**

Andrew Gannon

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'Home-schooling' by Össur Academy

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ÖSSUR
LIFE WITHOUT LIMITATIONS

Dear Reader,

Welcome to our first edition of the LWL Magazine. Like everyone else, we started 2020 with a plan, a careful and well thought out plan. Our plan like most others was to carry on doing the things that have made us successful – a little bit better, or a little more often perhaps, but nothing radical, an evolution, a process of marginal gains.

At the end of March we threw that plan away because it had become irrelevant. We had to learn new skills, and we had to learn them quickly. We built our virtual education platform, we started training our customers via Zoom, we created a key opinion leader webinar program that went out every week and that attracted audiences of over 500 HCPs on a number of occasions.

We learned that our customer facing teams could work remotely, safe at home, using a variety of multimedia platforms to interact with and put our customers first. We're proud that throughout the Covid period to date we have maintained a fully functioning remote Customer Care Team and that our Warehouse Team continued to offer a next day delivery to all of our customers on the UK Mainland.

Moving forward none of us can be sure what awaits us, but we feel confident that the skills learned through lockdown will enable us to support our customers better, to reduce our travel-related carbon footprint, and to become more efficient with our time and resources.

I hope you find the user stories, product news and updates in this magazine of interest. I would like to thank you for the co-operation and mutual support we have enjoyed throughout this period.
It is one of the things that makes our industry so special. ••

Emlyn Lewis

Managing Director
Össur North Europe

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Keep up-to-date!

LWL Magazine is produced by Össur North Europe.

Publisher, editor & project manager: Teri Bacci
Concept & design: Rik van de Schoot
Photography & illustrations: Össur, Adobe Stock, Rik van de Schoot & Allie Doersch

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An ambassador quite by chance

Össur ambassador

He was born an artist and without his left arm. Össur ambassador Andrew Gannon has had a prosthesis his entire life but never experienced a 'wow' moment until he was able to pilot test Össur's i-Limb and i-Limb wrist. Nowadays, he travels the world speaking about how a prosthesis can simplify and improve an amputee's quality of life.

Andrew Gannon

Text: Henrik Persson | **Photos:** Össur

Andrew Gannon's life, in many ways, centres around art. He lives in the vibrant and cultural city of Edinburgh, works at an art gallery, and has his own, successful career as an artist. "I always wanted to be an artist. It's very much what I'm about. It's probably not the smartest of career moves financially-speaking, but if your brain is programmed like that, you can't really be anything other than an artist," says Andrew.

Andrew studied for a BA in Fine Art at the end of the 90s, graduating in 2002. Back then, his focus was primarily painting. Almost ten years later, he continued his studies, completing a Masters of Contemporary Art Practice. As part of his final project, he began working with performance as a means of expression. "I think I ended up here because I wanted to simplify things and live life differently. Instead of thinking 'what can you do?', I thought, 'what is the least you can do?' And that's how I ended up in performance. I'm interested in ideas around failure, when things don't turn out as you'd expected." >>

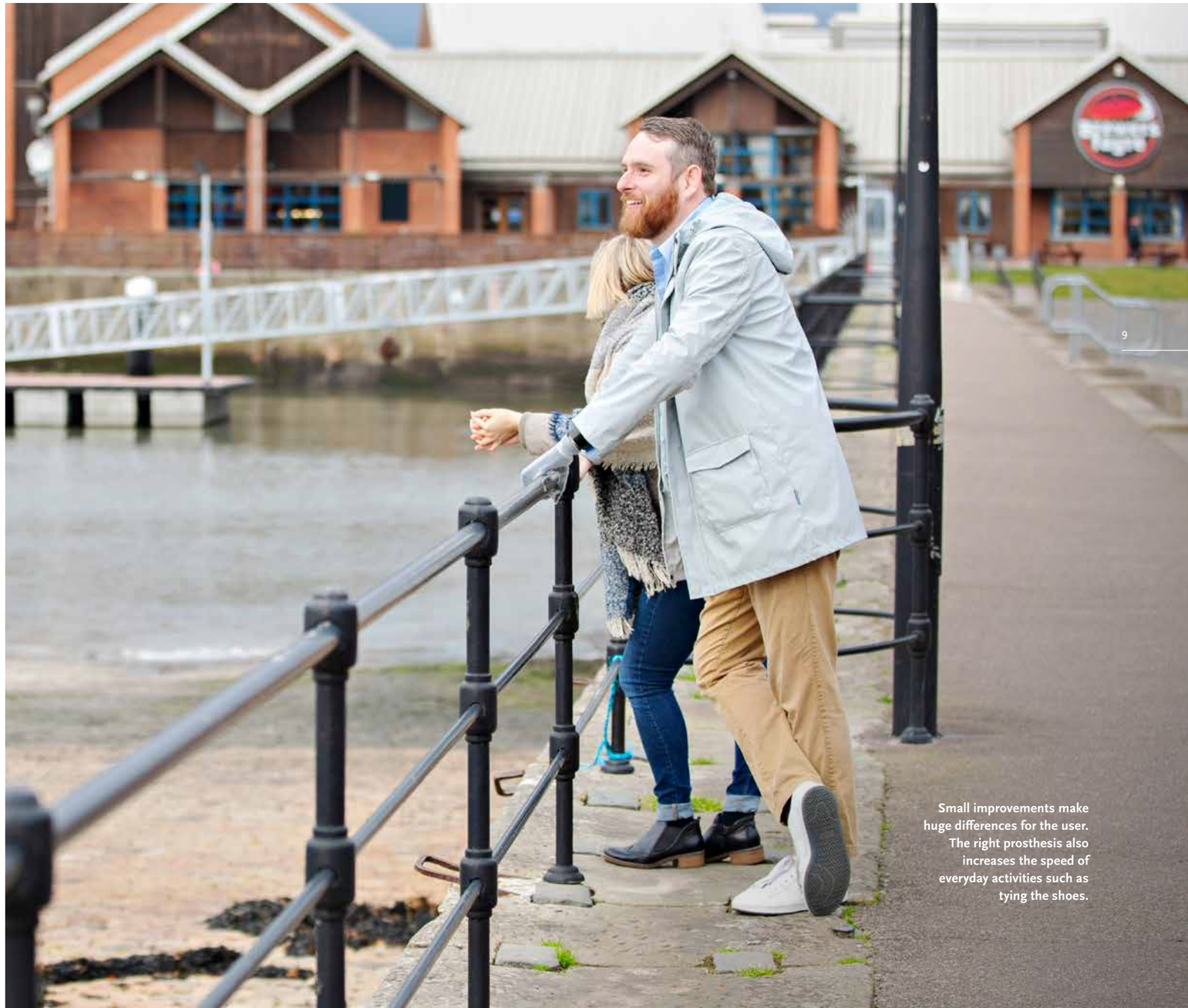
“I learned to tie my shoelaces when I was small. But it wasn’t until I was 34 that I realised I hadn’t been tying them tight enough.”

About ten years ago, Andrew moved to Scotland with his wife-to-be, in part looking for a calmer life, but also cleaner air. This was a stark contrast to where he had grown up, in Bolton, close to Manchester. His upbringing was pretty typical at the time; at least, as normal as it could be for someone born without their left arm. Andrew was brought up to always use a prosthesis. “My parents were very careful about that. It was just like having to wear glasses or shoes. I got my first prosthesis when I was 18-months-old and a myoelectric prosthesis when I was 4.” By the time he was in his mid-thirties, Andrew had principally only used the kind of prosthesis that he had used in the 1980s. As he understood it, technology hadn’t really advanced since then. However, with a little bit of luck, he had the chance to try an i-Limb Revolution. Without exaggerating, it was a resounding success. “I didn’t have any expectations because I didn’t really think there was anything I couldn’t already do. But after trying Össur’s i-Limb for one day … I know it sounds like an exaggeration, but I didn’t want to give it back. The difference was like night and day.”

Today, andrew is an ambassador for Össur and uses an i-Limb in conjunction with an i-Limb Wrist. Partly by accident and partly by luck, he found himself collaborating with Össur.

“My prosthetist asked me if I wanted to try an i-Limb. They’d got special funding to trial it within the NHS and it was pretty much by luck that I was able to get one. A bit later, I was contacted on Facebook by Touch Bionics, which was subsequently acquired by Össur. Through that route, I came into contact with R&D and was able to make a contribution to the development of i-Limb Wrist.”

A couple of years ago, Andrew was asked to take part in an event in New Orleans. Nowadays, he travels around the entire world giving talks about, and promoting, Össur’s prostheses. He doesn’t want to claim that you can do something with them that you couldn’t otherwise do. Instead, it’s about doing things more quickly and less painfully. “I usually take shoelaces as an example. I learned to tie my shoelaces when I was small. But it wasn’t until I was 34 that I realised I hadn’t been tying them tight enough. I can trust my hand so much more because I have a better grip. I can also tie them much more quickly. There are many small improvements that don’t stand out on their own; however, when you put them all together, the difference is enormous. It’s also about the pain. When you manually need to adjust the rotation of your wrist, it’s easy to cheat and overcompensate with your shoulders, and so on. I had a lot of pain and thought it was because of my age, but it disappeared when I began using i-Limb, then moreso with the wrist,” says Andrew. >>



Small improvements make huge differences for the user. The right prosthesis also increases the speed of everyday activities such as tying the shoes.

Andrew reiterates that he can't do anything with his prosthesis that he couldn't do before. However, it's changed the way he looks at himself, his disability, and prostheses in general. His missing left arm has come into focus, so to speak. "For a long time, I didn't want to draw attention to my disability. I wanted my art to be accessible for everyone. That's why I often use other people in my performances. But lately, I've changed it up and purposely put disability at the centre," says Andrew. "I started working with i-Limb gloves and making prints with them, as a way of acknowleging the work with my left hand. Subsequently, I made a number of plaster casts where I'm playing with the form of a prosthesis, consciously creating an absurd shape as a way of questioning what the point of is. It's been an interesting process." ••

KEY TECHNIQUES

The prosthetic solution that Andrew has today gives him access to two key techniques which increase the speed of daily movement.

1. You no longer need to manually rotate the hand to the right position as this occurs automatically. This increases the speed of use, which also makes it more likely that the user will use their wrist.

2. Through Smart Control, you can achieve direct rotation because the digital electrodes can differentiate between different impulses to open and close the hand, as well as rotate the wrist. This means that you don't need to manually switch from hand to wrist, which again makes it quicker to use.

i-Limb Wrist

Revolutionary wrist function

The new i-Limb Wrist is based on a concept that enables simultaneous control of rotation by grip selection and revolutionary use of a multi-articulating prosthetic hand.

Text: Fridah Jönsson | **Photo:** Össur

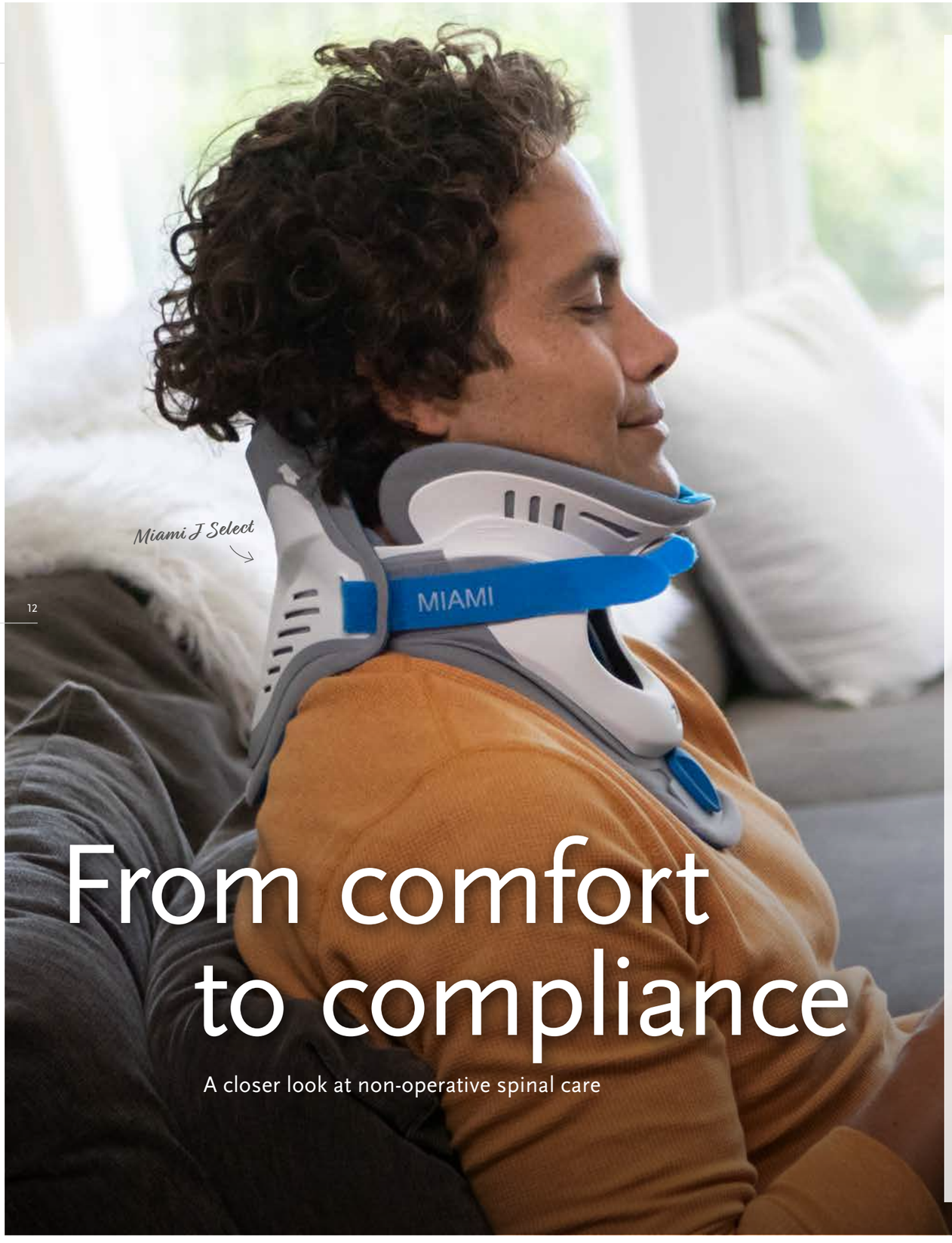
Last Summer saw the launch of the i-Limb Wrist, a new product by Össur and Touch Solutions. An electric wrist that works with the SMART Control function to enable simultaneous use of wrist rotation and grip selection with an i-Limb Quantum prosthetic hand.

Electrodes and microprocessors in prosthetic arms are inherently nothing new. These have been used for a couple of decades to filter and interpret the electrical impulses that the brain sends to the muscles every time we make a movement. But, in conventional use of a myo-electrical prosthetic hand and an electric wrist, the user has had to use a muscle trigger or a manual coupler to switch between the functions in the prosthetic hand and the wrist. This is where the i-Limb Wrist stands out from other electrical wrists. The i-Limb Wrist makes use of digital electrodes which, combined with micro-processors and sensors, simultaneously interpret the user's various muscle signals and enable the hand and wrist to communicate in real time.

Now the user does not need to switch from hand to wrist, but can simply use the muscle signals that are associated with the movement in question. The key concept here, therefore, is simultaneous interpretation of different signals.

The i-Limb Wrist is an example of the Pattern Recognition concept that the industry has been talking about more frequently in recent years; it is about capturing information in order to be able to interpret more complex movements from thought patterns. By being able to map the majority of different movements and interpret these, the user can now gain more natural use of the prosthesis. The need to come up with alternative strategies to control the prosthesis has thus been reduced.

With the i-Limb Wrist, the user no longer needs to think about switching between different functions, but can use the prosthesis in a manner that is as close as possible to the natural way. In fact, that is Össur's goal for all its products. ••



From comfort to compliance

A closer look at non-operative spinal care

The primary goal of a spinal brace is to increase spinal stability in all anatomical planes to support immobilisation. Secondary goals include limiting progression of deformity and providing stability for healing.

Text: Boris Kibrik | **Photo:** Össur

In recent years, hospital and trauma guidelines for patients with spinal injuries have evolved significantly. Treatment services now have a clear injury management protocol, including initial neurological assessment, radiographic assessment, cervical collar clearance protocols and procedures for closed reduction of cervical fracture injuries, as well as a classification system for thoracolumbar spinal injuries.

When deciding a treatment plan after a spinal injury, the clinicians must first define spinal stability to determine the risk of neurological compromise. For some stable fractures, non-operative treatment may be a reasonable alternative to surgery, achieving comparable long-term results with the use of spinal orthotics.

Össur understands these objectives in non-operative treatment and has been instrumental in working with clinicians to design products that improve compliance and comfort when it comes to the use of spinal orthotics. Össur's mission is to be the global leader in non-invasive orthopaedics driven by designing top-tier products and gaining brand recognition based on quality and high reliability. Moreover, we have always been committed to working closely with hospitals and have established strong links with major trauma units around the globe. This has enabled us to not only be able to offer a state-of-the-art product range, but also educational resources to help with current growing demand in national health services for improved outcomes with limited funds.

"There has been an evolution in bracing for spinal fractures, as well as an evolution of our understanding of fractures.

There is room for conservative treatment for the right patient with the right indication."

Mr Sashin Ahuja,
MBBS, MS (Orth), FRCS (Tr & Orth)

The use of the Össur Miami Spinal Range is often supported by Clinical Specialist Physios when treating patients where immobilisation is required, particularly where skin integrity could be an issue. "In patients with significant lacerations and where other collars may be pressing against the laceration, the Miami J Select gives the extra adjustability to position the collar so it fits really well, so the patient can tolerate it. Tracheostomy can also be a challenge and the different options of collars must really be explored. The Miami J Select has a big space to work with tracheostomies and is where we have the most success at the moment", according to a Clinical Specialist Physio, Coventry.

In response to the growing backlog of patients affected by recent imposed restrictions, Össur's range of spinal products may prove instrumental in the support of the trauma and orthopaedic cohort of patients. ••

Virtual learning

Össur Academy embraces ‘home-schooling’

The Össur Academy team consists largely of clinical specialists who bring their experience from past work in thriving and challenging clinical environments to our organisation. They have a genuine wish to share their enthusiasm and passion with customers on the service and treatment options our products offer.

Text: Richard Hirons | **Photo:** Össur

Training and education are at the heart of what the Össur Academy provides, not only with customers and service users, but also internally with our own colleagues, helping support the business provide widespread understanding in relation to our customers’ needs.

Those needs changed quite dramatically during the past few months. Some clinics were closed completely, and others found that NHS staff were being redeployed to other services where focus was on providing care to those whose surgery had been postponed, and who required alternative treatments to maintain mobility and manage pain relief in the interim.

Our Academy team shifted seamlessly from providing on-site education and training to offering a wide range of remote learning opportunities. Already experienced in offering educational webinars for the past two years, our team quickly adapted by ramping up the frequency of these and offered a range of events from one-to-one virtual meetings with customers and end-users, right through to large webinars delivered by key opinion leaders with literally hundreds of attendees.

Bringing engaging content with multimedia formats and a variety of presenters has delivered topics to our customers that are both informative and entertaining, whether it’s been for general CPD interest, or directed more specifically at creating solutions and solving problems for end users. Visit www.ossur.co.uk and search for ‘Webinars’ to see what’s coming up next, as well as taking a look at our back catalogue of webinars and live events.

The Össur Academy sees remote learning as an effective platform to connect with, educate and update customers, for not only the past few months but for many years to come. Please feel free to contact us for more information. ••

Spotlight on... multi-disciplinary team

Rachel Humpherson

Working in Össur’s Academy as a clinical specialist physiotherapist

For someone affected by injury, illness or disability, it may often feel like a life without limitations is impossible. However, physiotherapists are there to help patients achieve exactly that by restoring their movement or function. Let’s meet one of the Össur Academy Physiotherapists in North Europe.

Q: “Please introduce yourself, your clinical background and the Össur Academy.”

Rachel: “I qualified as a Physio 9 years ago, and work as part of the North Europe Academy team to further the level of education and quality of prosthetic and orthopaedic knowledge among professionals, patients and their families.”

Q: “Please explain how different clinicians can work together to best support the patient?”

Rachel: “As a physiotherapist, I have always worked closely within multidisciplinary teams, which provides the support and specialist skills outside the normal scope of practice. For example, in the regional prosthetic limb centre I worked at prior to Össur, being able to refer patients to Orthotics for braces like the Unloader One X on their remaining limb, helped prosthetic rehab to progress effectively.”

Q: “How has your recent experience of utilising virtual training been?”

Rachel: “On the prosthetics side, we started using virtual training for our own internal staff earlier this year. Thankfully, this allowed us to develop good knowledge of how best to run these sessions. Once we were restricted visiting customers in person during the pandemic, it meant we could set up customer virtual training and support sessions very quickly. It’s been really enjoyable discovering new technology skills and being able to communicate in a different way with our customers, during what has been an extremely difficult situation for everyone.”

Q: “Össur is an innovative company in terms of the technology used for both bracing and prosthetics, how does this benefit clinical practice?”

Rachel: “It is great to have access to innovative technology for your patients, but the available support from specialist clinicians in both the Global and North Europe Academy Teams allows me to deliver training to other medical professionals to provide the best rehab to their patients. We approach clinical needs differently and have built a network of trained professionals who all work together for their patients.” ••

A look into the world of...

Advanced sensor technology

Behind thought-controlled prosthetics

Will- or thought-controlled prostheses are no longer science fiction. Last year, an agreement was signed that could change the lives of thousands that use a prosthesis.

Text: Pål Johansson

In 2019, Össur signed an exciting agreement with Californian company Alfred Mann Foundation (AMF). The agreement enables the further development and licensing of AMF's implanted myo-electric sensors IMES. These sensors make it possible for a prosthesis to be controlled by the wearer's thoughts.

Imes-sensors are implanted into the muscles, which instantly control the desired movement of a bionic prosthetic limb or hand. The sensors are able to detect the tiny electrical charges that occur in the muscle fibres when a user intends to make a specific movement. The sensors then send the information wirelessly to the prosthesis. The result is that the bionic body part responds with the desired movement in the same way that an arm, leg or hand of flesh and blood would respond.

The first medical tests with IMES were made in 2014 when amputees from the American army tried sensors with Össur's arm prosthetic i-Limb. During the following year, tests were also performed with leg prostheses. Because the IMES-system works like a bridge between the amputee's neuromuscular system and their artificial prosthesis, the amputee goes through a continual process of subconscious learning. Both Össur and AMF are excited to see what the partnership will lead to and result in. For AMF, this will enable their technology to reach as many end users as possible, while Össur are excited to see how the advanced sensor technology will increase the possibility to further refine the user experience of bionic prosthetic solutions. In this way, both companies together will be able to help more people lead lives without limitations. ••

ALFRED MANN FOUNDATION
AMF was founded in 1985 by American physicist, inventor, and entrepreneur Alfred E. Mann.
It is a non-profit organisation and its mission is to support research and develop medical technology that will be made available to the general public.
Learn more at: aemf.org

Maintaining customer experience during the pandemic

By Annika Swinn Campbell, Össur Customer Care Manager North Europe

As we faced lockdown back in March, we had some tough decisions to make like so many others. Priority for us was to continue to provide healthcare products to the NHS and maintain a positive customer experience; but would this be possible at the same time as staying at home to protect the NHS and save lives?

Photo: Adobe Stock

So many new restrictions and guidelines to follow. How could we initially protect our in-house teams from the risk of infection and how would other colleagues fare in the new working environment of home? Could we run a customer care team remotely whilst running a skeleton team in the warehouse? Could we manage to maintain the service levels our customers were used to? Would our delivery courier be able to continue to support us?

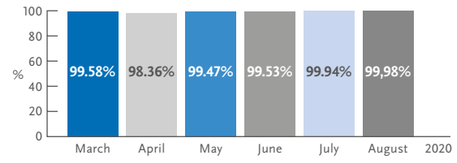
We are pleased to say the answer was a resounding yes! A phone system that worked remotely was quickly installed and since all our orders are processed electronically, we were in an excellent position to push ahead. Our courier, UPS, was supportive and confirmed they were confident in their service levels.

Next to consider were a whole host of human issues, with everyone working from home in the pandemic. People with small children or limited space for working had one set of challenges, those living alone had issues with isolation. Our employees' mental health is very important to us and we were determined to ensure that we all worked as a team. Every morning, virtual meetings took place for colleagues to share work-related tasks and check each other's welfare. We hosted afternoon 'coffee break' meetings and evening quizzes to ensure that no one was alone. Working hours were staggered and flexible to adjust to a new environment and unexpected commitments. We were all in the same boat and supported and encouraged each other wholly.

Of course, our warehouse team experienced their own challenges. To maintain social-distancing, staff on the floor were reduced to 50% and everyone had their own packing station. Cleaning was stepped up and job rotation become more important to avoid fatigue from certain tasks and ensure everyone was able to distance.

We are proud to say that throughout the pandemic, we kept normal office hours, answered all calls and maintained our same day order processing. The delivery performance from the UK warehouse stayed well above 98% month on month, returns were processed as normal and we sought to answer all queries without delay.

Looking at lessons learned, it's clear that maintaining our service during the pandemic was everyone's responsibility and everybody rose to the challenge. As we face further uncertainty this winter, we know that we have a team to be proud of. It's our teamwork that enables us to put our customers at the heart of what we do. We stayed at home to save the NHS and worked to serve all our customers. ••



HELPING TO DELIVER THE NHS LONG-TERM PLAN

Through innovative treatment of Knee OA

ÖSSUR

Improving people's mobility

In business since **1971**

3000 employees approx.

25 locations worldwide

Global leader in **non-invasive** orthopaedics

To the NHS one of the **largest suppliers**

UNLOADER ONE

Most studied OA Knee Brace

Clinical research has demonstrated the following results for patients with unicompartmental osteoarthritis using the Unloader One knee brace:

Decreased pain | Improved function | Improves quality of life

As published in the BMJ

For Unloader One clinical studies and research please visit www.ossur.co.uk and search 'studies'

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MSK | **Community** | **GPs**

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PPP HEALTHCARE

The Unloader One OA knee brace is also available within the Private Healthcare Market.

Unloader One X

The choice of clinicians for nearly two decades

Unloader One X improves mobility by providing pain relief from knee osteoarthritis and degenerative meniscal tears. It features Össur's unique patented and clinically proven 3-point leverage system that generates unicompartmental unloading of the knee joint.

Text: Ruth Virgo | **Photo:** Össur

Patients often experience an 'Unloader Moment', the instant reaction and benefit the patient feels from the Unloader One X brace, which has further been proven through the use of a gait and pressure plates, patients showed that gait had improved and were able to put more weight through their affected leg once the Unloader One X had been fitted.

Unloader One is clinically shown to reduce pain

With more than fifteen clinical studies demonstrating its efficacy, Unloader One is the most studied offloading knee brace in the world. The conclusion from an 8-year study published in the BMJ, is that the Unloader One is a cost-effective method to bridge and delay surgery in unicompartmental knee osteoarthritis. If you would like to learn more about the Unloader One X, please contact us. ••

Scan the QR code to see the Unloader Moments for yourself.

Better recovery

Direct Socket - a revolution for leg amputees

The effective healing of a wound after an amputation is a challenge. But the innovative process of Direct Socket doesn't just contribute to early prosthetic support; it also leads to shorter time to prosthetic fitting. This, in turn, gives the user the possibility to focus on rehabilitation and to obtain a higher level of independence.

Text: Eva-Lotta Sigurdh | **Photos:** Össur

There are many reasons why it is beneficial to speed up the healing process of an amputation wound. The time it takes to heal is a crucial risk-factor for both severe complications and increased mortality. Physical activity is vital because it improves blood circulation, and thus the supply of oxygen and nutrients to the wound, which is fundamental to the healing process.

But activity is not always easy, and many things affect whether the patient can and wants to move around after amputation. The level – i.e. where on the leg the amputation was made – is of considerable importance. There is a much greater risk of being confined to a wheelchair if the amputation occurs above the knee, while the risk of wound complications are higher when the amputation occurs below the knee. "There is a strong connection between physical activity and healing," explains Anton Johannesson, who has been involved in developing the post-operative part of Direct Socket-technology to tackle these challenges. Challenges which can easily lead to a downward spiral. "If your wound is not healing after amputation, your motivation to move is quickly impacted and life in a wheel-chair risks turning into depression. For a wound to heal, increased blood circulation is needed – delivering both nutrients and oxygen, as well as enabling the heart and lungs to work. If you're confined to a wheelchair and have a wound that is difficult to heal, leaving you unable or not wanting to move, you will not heal as quickly. This, in turn, can make you depressed and unmotivated to move."

Direct Socket-technology is partly based on the use of a silicone liner, which distributes weight evenly over the residual limb, and through vacuum suspension, which enables the prosthesis to remain attached to the leg. It is also partly based on training to walk because walking gets the circulation going in the amputation wound. A wound does not have to be healed before a prosthesis can be used. “The residual limb, with a silicone liner on, is inserted into the prosthetic socket. Through a valve at the bottom of the socket, air is pressed out and then a sleeve is rolled up. This then comes into contact with the skin of the thigh and a vacuum is created holding the prosthesis in place. The vacuum creates an effect in the prosthetic socket, so when the prosthesis has weight upon it, pressure is applied to the residual limb causing the blood to pump up. When the patient then lifts up the prosthetic leg, the pressure under the socket increases, enabling artificial circulation in the wound. This supplies the capillaries with oxygen and nutrition. Unlike before, this socket technology is produced onsite, which saves time.”

The residual limb, with a silicone liner on, is inserted into the prosthetic socket. Through a valve at the bottom of the socket, air is pressed out and then a sleeve is rolled up.

The shorter time to prosthetic fitting is what saves the biggest amount of time, which in turn, gives the user the possibility to focus on rehabilitation and to obtain a higher level of independence. “This reduces the rehabilitation process enormously. You can both start to move earlier and get your blood circulation going. What’s more, the vacuum technology can increase the speed at which the rest of the wound heals after you have started using the prosthesis. I hope that more healthcare institutions dare to invest in this technology. Interest in Direct Socket is certainly increasing, but early provision of a prosthesis is still far from what it needs to be in order to benefit from all the positive effects that the method gives,” says Anton. He also emphasises the importance of solid teamwork centred around the patient at every step of the process to ensure it works well. “This is not something a doctor should do on their own. It needs to be done in continual consultation with a prosthetist and wound care nurse. There is nothing to lose, and everything to gain – a less suffering, better life-quality, fewer complications and lower mortality.” ••

Balance Foot S

Balance between stability and mobility

Text: Ola Claësson | **Photo:** Össur

Balance Foot S, a prosthetic foot, specially developed for less active prosthetic users, is now on release. Constructed with light fibreglass and shaped in a unique C-form, it gives users the perfect combination of stability and mobility.

There is an increased need for prosthetic feet for less active users of prostheses as a result of Europe’s aging population. Today, about 80 percent of all leg amputations are linked to decreased blood supply due to diabetes – a disease that is common amongst the elderly. This has put new demands on prosthetic feet and is one of the reasons Össur developed Balance Foot S.

“The idea was to create a light and stable prosthetic foot for people who mostly move about at home and outside. It is a group who have a significant need to maintain control and keep their balance. We think Balance Foot S meets these demands,” says Lilian van Eijndhoven, Product Marketing Manager Prosthetics, Össur North Europe.

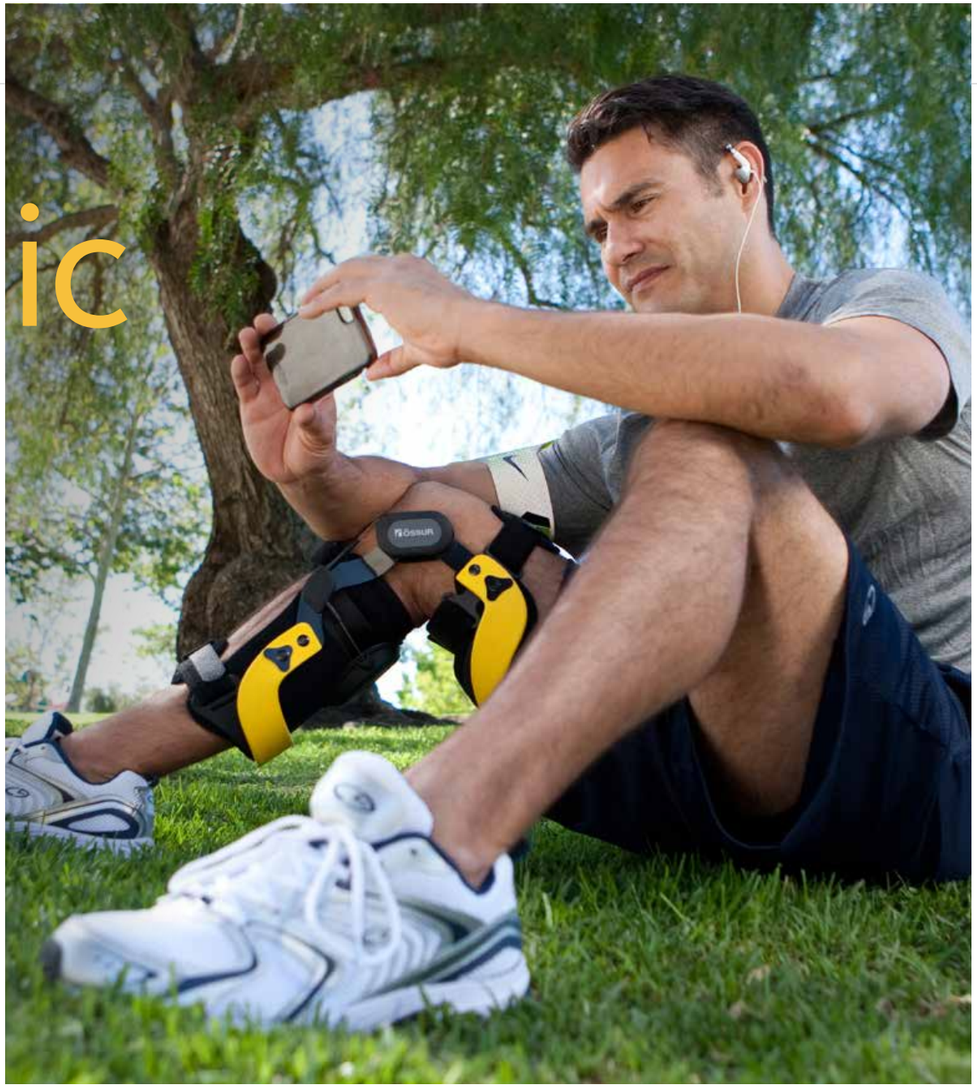
One of the greatest challenges when Össur developed Balance Foot S was to give the user excellent stability without diminishing their mobility and flexibility. The solution was a construction with a broad foot with a steady-grip sole, combined with the C-form made in glass fibre – a very light material. It was decided that the design should incorporate a cushioned heel for stability and added comfort when the heel touches down on the ground. Balance Foot S even has a split toe giving the foot a so-called ‘multiaxial function’ which gives excellent balance and safe movement. Last but not least, the foot is also available with a Torsion module. This gives the user shock resistance, as well as the ability to turn and rotate, imitating the natural walking pattern of humans. It’s equally important that Balance Foot S can be used in a variety of everyday situations. Therefore, the foot is constructed to be used with different types of footwear, ranging from boots to light sandals. Furthermore, the glass fibre construction is completely water-proof. “At Össur, we’re really proud of Balance Foot S. This prosthetic foot fills an important gap in the market, and we hope that it can lead to an increase in life-quality for its users,” says Lilian van Eijdhoven. ••

Truly dynamic

Functional Healing - where mobility means recovery

Orthotics, from a Greek word, ortho, 'to straighten' or 'align' is a specialty within the medical field concerned with the design, manufacture, and application of orthoses which are an externally applied device to modify and support the structural and functional characteristics of the skeletal system affected by different conditions.

Text: Boris Kibrik | **Photo:** Össur



The use of orthotic intervention is determined by the specific situation at hand, the primary goal being to meet the functional need and expectations of the patient with minimal restriction imposed on them while using the device. This decision is also heavily dependent on the accessibility to certain technologies and aspects of costs associated with them.

"Rebound ACL may aid in the prevention of further meniscus and chondral damage & can provide protection of repaired graft post operatively."

Mr Ioannis Pengas, Consultant Orthopaedic Surgeon at Royal Cornwall Hospitals NHS Trust

Össur's 'Life Without Limitations' mission strives to capture the need for conservative and post-operative patient care, enabling recovery with minimal limitations using unequivocal clinical evidence.

Although temporary braces can help to reduce abnormal stresses while allowing injuries to heal uninterruptedly, growing evidence identified the need for and benefits of early mobilisation of the knee joint, and it became apparent that classic knee braces were limited in offering the true ability to support joint motion throughout the full range of motion.

Consequently, as motion and rehabilitation are nowadays deemed to be a critical aspect of successful recovery, there was a need to have more functional and dynamic load knee braces permitting anatomically correct forces to be applied during motion and primarily used to assist movement and weakened muscles; and other structures to optimise healing.

Through innovative technology, proven bio-mechanical approaches, and partnership with leading medical professionals, Össur has been successful in developing and offering comprehensive and effective treatment options. Decades of expertise led to developing the first and only known biomechanically correct and clinically supported knee functional healing product back in 2015 to tackle Posterior Cruciate Ligament (PCL) injuries.

The new technology of using clinically proven load application through a Dynamic Tension System (DTS) allowed this unique Rebound PCL brace to provide biomechanically stable positioning of the knee and physiological loading of the PCL throughout knee flexion and extension. The development of this brace was the beginning of truly anatomically correct bracing with dynamic loading through the full range of motion, and was soon recognised as a gold standard brace in PCL rehabilitation around the globe.

With evolving adaptation of the same dynamic tension philosophy, Össur worked collaboratively with leading orthopaedic experts looking to further expand the range with a new focus on the modern Anterior Cruciate Ligaments (ACL) bracing options. This led to the development of the Rebound ACL brace designed to comfortably apply an anatomically correct, dynamic load to the anterior cruciate ligament (ACL).

Within the Rebound Functional Healing family, we offer indication-specific products designed to optimise healing while maintaining function and improving mobility. Please get in contact to find out more. ••

"The Role of dynamic load bracing is emerging."

Tim Powell, Advance Practice Physiotherapist, Royal Cornwall Hospitals NHS Trust

Me and my...

Rheo Knee

A story from Mike Smith, an above-knee amputee

Mike Smith

Text: Teri Bacci | **Photo:** Össur

Mike became an amputee 27 years ago after suffering from a blood clot in his leg. The injury was exacerbated by a fall shortly afterwards, which required a lengthy hospital stay and operation to reshape Mike's residual limb.

Understandably, initially he felt very low and struggled to look to the future, but this changed when he was visited in hospital by another amputee who helped him realise that there was hope. Seeing his visitor walk, Mike felt more optimistic.

After being fitted with a limb and along with physiotherapy, Mike was able to walk again with crutches. He was soon feeling more motivated and determined. His goal was to get back to work, which he achieved in time.

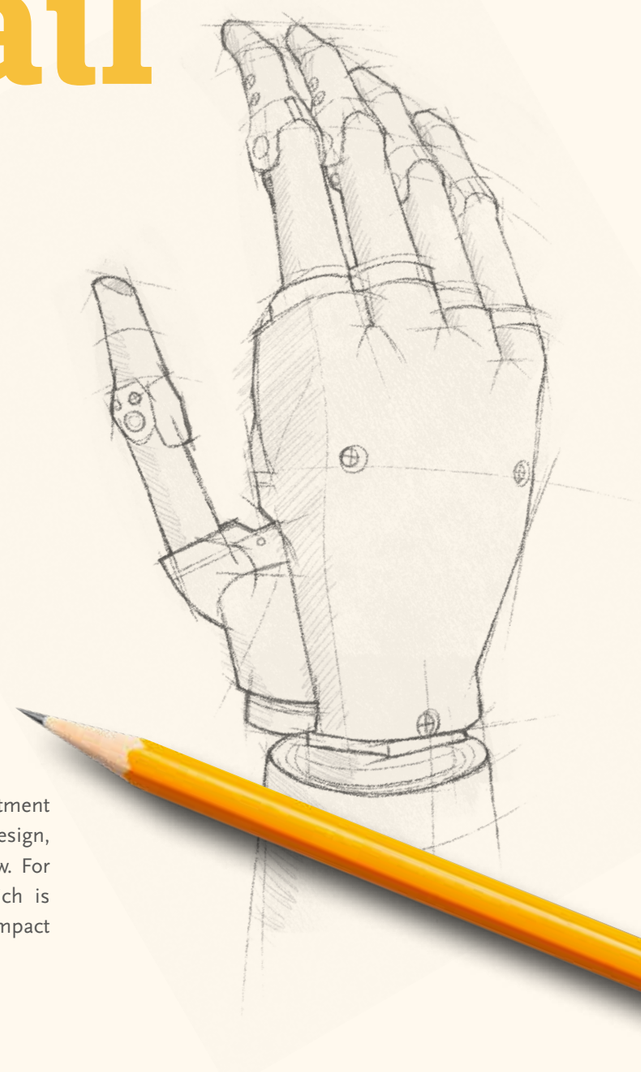
Although Mike was able to walk on his mechanical knee and was slowly becoming more independent, he sometimes had issues with stability, having numerous falls which impacted on his confidence. However, since being fitted with the Rheo Knee and Pro-Flex foot, as well as the invaluable support received from his prosthetist and physiotherapist, Mike has become much more mobile and independent with improved stability and confidence.

Mike is now fully confident with everyday activities such as washing, cleaning, shopping and using public transport. He is active with his family, does DIY for his children and looks after his grandchildren, as well as being involved in various groups and voluntary work.

Undoubtedly Mike's positive attitude to his injury has been a central factor in his rehabilitation. He strongly believes that remaining focused on your personal goals, taking things at your own pace and listening to the advice given by professionals are key to recovery. Mike is thankful for all the support he's received along the way and for being seen for the person he is rather than for his disability. ••

"Since having the Rheo Knee, I have not used my crutches for everyday activities and mobility. It has improved my life, making me more independent and allowing me to live my life without limitations."

With attention to detail



Össur Design Centre in Iceland ensures that the company's communication is clear and accessible. Product illustrator Allie Doersch plays an important role in the long journey to the final product.

Text: Ola Claësson | **Photo:** Helga Laufey
Illustrations: Allie Doersch

It was love that drove American Allie Doersch to Reykjavik. Today, she works as a product illustrator at Össur Design Centre. Here, employees come together amid a mix of design and communication skills. The team's main task is to support Össur's research and development departments by developing and communicating the company's products. "Our department is, among other things, responsible for package design, where a lot of exciting things are happing right now. For example, we've just developed new packaging, which is comprised of completely recycled paper; it has less impact on the environment," she says.

Because Allie lives near the office, she walks there every morning. The first thing she does when she sits down at her desk is to create a detailed list of the day's tasks. "It's important that the list is well-organised, but also aesthetically pleasing. I'm probably damaged by the job," she says laughing, "because I always have to take care of the design whether it's big or small." She continues: "One of my main tasks is to illustrate the user manuals which accompany every Össur product. In my job, you have to think creatively and have a good understanding of how people think."

What is the biggest challenge of illustrating user manuals?

"It's nearly always a question of weighing up what the important details are and, at the same time, ensuring that it doesn't become confusing. A user manual needs to be precise and technical, but also educational and attractive. It's important that people aren't put off by a mass of details."

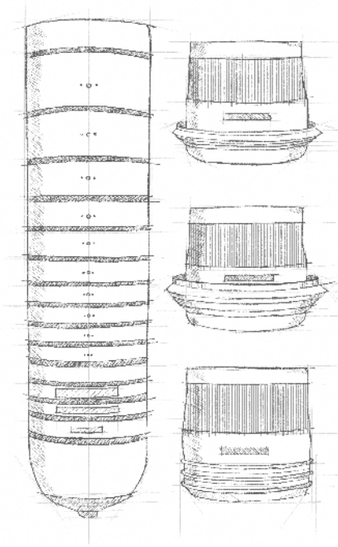
Allie's work at the Design Centre begins when a product is fully developed. The team gathers to brainstorm about how the communication of it should look and what challenges could emerge during the work. When a list of the most important points has been put together, she starts working in the illustration program on her computer. "One of the most recent products

> **"In my job, you have to think creatively and have a good understanding of how people think."**

we developed – launched during the spring – is Balance Foot S, a prosthetic foot constructed from fiberglass, which gives the user perfect balance. After lunch in the canteen, afternoons are spent in front of the computer screen and in meetings, as well as impromptu discussions with colleagues. Allie even regularly holds internal courses and presentations about visual communication. She teaches others, for example, how to make a better presentation and design email campaigns.

Do you have any tricks that you teach to get people thinking more creatively?

"I usually teach participants an entire toolbox of simple methods that will enable them to quickly become better at design As well as that, I think it's important to take breaks. Personally, I tend to go and do some stretching exercises during the afternoon when tiredness starts to set in. It helps me relax and get a fresh way of thinking." ••



Multifaceted Iceland

Iceland isn't just the country where Össur was founded nearly 50 years ago. The island country in the North Atlantic is jampacked with exciting, fascinating and unexpected places and phenomena that are definitely worth seeing. Verið velkomin til Íslands!

Text: Pål Johansson | **Photos:** Adobe Stock

Kirkjufell, Iceland

The mythical and volcanic tiny country of Iceland has attracted visitors from all over the world for many years. Whether it's the magical landscape, viking stories or the geological phenomena which attracts people, we can only guess. What's clear, though, is that Europe's most sparsely populated country has a host of many riches for those who are curious.

Even though Iceland was one of the last places to become inhabited, it can still call itself one of the first democracies. Since the year 930, Icelanders have voted to elect members of parliament, including the world's first female president, Vidgís Finnbogadóttir. With approximately 30 active volcanoes and a myriad water-spouting geysers, as well as other geothermic activity, it's not strange that 85 percent of the country's energy comes from renewable sources. The reason for all this geothermic activity is that Iceland straddles the Eurasian and North American plates.

There are practically no forests in Iceland as the first inhabitants converted all the forestry on the island to dwellings and fuel. The harsh climate and the island's location also mean that the number of mammals is limited. In contrast, however, there is considerable birdlife, with over 300 species, and also many sheep. In fact, it's widely believed that there are more sheep than people on Iceland! But whether that's true or just an Icelandic saying is up to you to believe!

5 excursions

Siglufjörður
A small fishing village in the northern fjords with breath-taking, spectacular views.

Reykjadalur (hot springs)
An area of considerable geothermic activity with hot springs, suitable for bathing, surrounded by green hills.

Gullfoss
Incredibly beautiful, and perhaps the best known waterfall in the entire country.

Whale safari
Take a tour boat from Húsavik and have the chance to see some of the 17 species of whale that swim in the waters around Iceland.

Hallgrímskirkja
A popular tourist destination where from the top of the church tower, you have a 360-degree view of Iceland's capital city.

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