



## SIGN Surgery Prevents Lifelong Disability

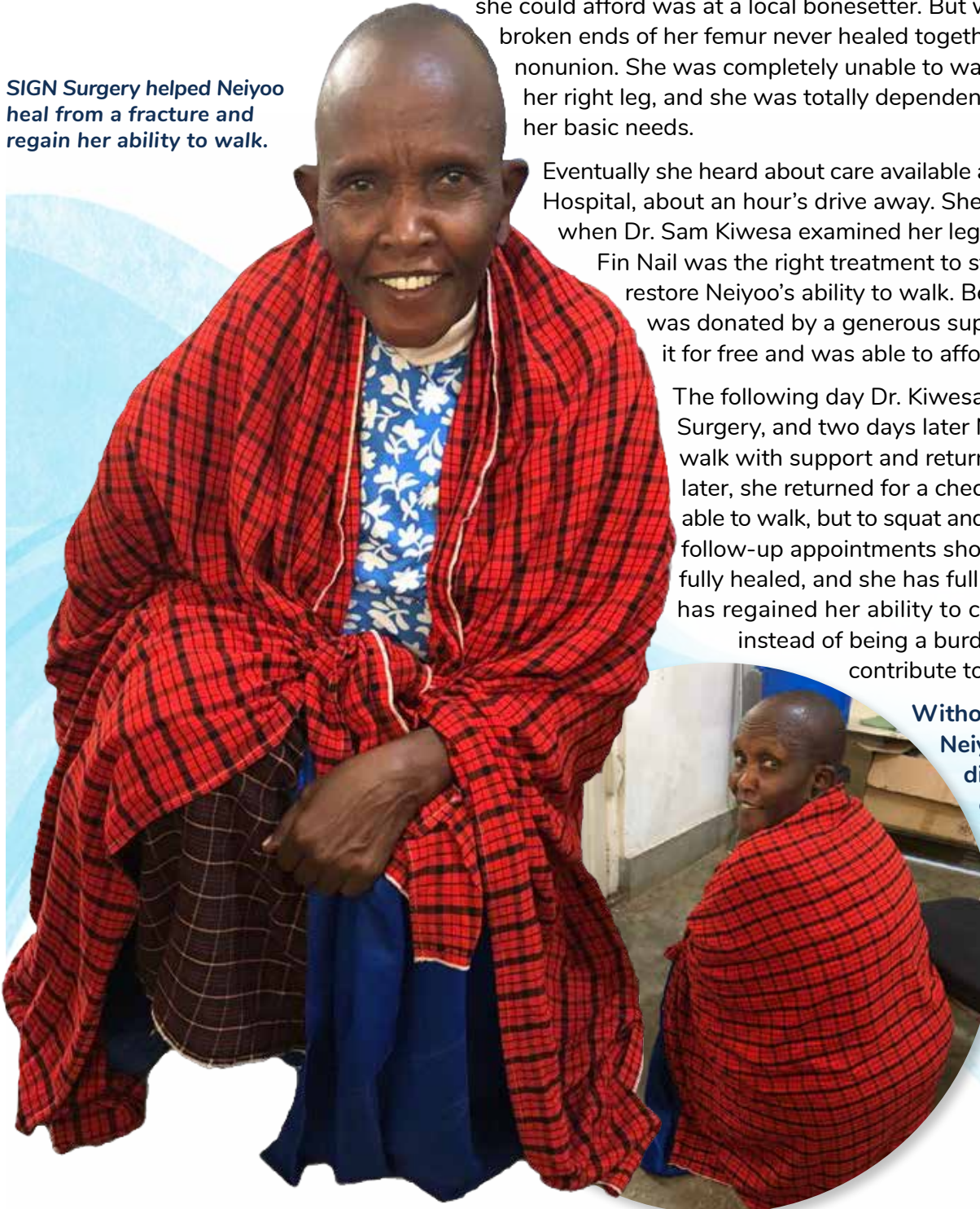
*SIGN Surgery helped Neiyoo heal from a fracture and regain her ability to walk.*

Neiyoo, a 60-year-old from Tanzania, had not been able to walk for more than a year. She was injured while walking along the side of a road when she fell into a ditch and fractured her right femur. The only care she thought she could afford was at a local bonesetter. But with that treatment, the broken ends of her femur never healed together, leaving her with a nonunion. She was completely unable to walk or bear weight on her right leg, and she was totally dependent on her family for all her basic needs.

Eventually she heard about care available at Nkoaranga Lutheran Hospital, about an hour's drive away. She traveled there, and when Dr. Sam Kiwesa examined her leg, he knew that a SIGN Fin Nail was the right treatment to stabilize her fracture and restore Neiyoo's ability to walk. Because the SIGN Nail was donated by a generous supporter, Neiyoo received it for free and was able to afford her full treatment.

The following day Dr. Kiwesa performed SIGN Surgery, and two days later Neiyoo was able to walk with support and returned home. Six weeks later, she returned for a checkup and was not only able to walk, but to squat and smile. Her continued follow-up appointments show that her leg has fully healed, and she has full use of her legs. She has regained her ability to care for herself and, instead of being a burden on her family, can contribute to providing for them.

**Without SIGN Surgery, Neiyoo would have been disabled for life. Please give the gift of healing, independence, and hope to the next person in need by donating today. Use the enclosed form or go to [www.signfracturecare.org/donate](http://www.signfracturecare.org/donate)**





# Traveling Fellowship for SIGN Surgeons

By Dr. Jun Valera, Philippines

The Limb Lengthening and Reconstruction Society (LLRS), with a great help from SIGN, has given me an opportunity to be one of their international traveling fellows this year. The program enabled Dr. Ahmed Hammouda, from Egypt, and I to visit four hospitals all over the United States who do a lot of limb lengthening and reconstruction surgeries, so we could learn from the best and apply their knowledge to our practice.

At all four hospitals, the core principle of treatment, strict adherence to limb deformity principles, precise attention to details, and the same excellence in treatment of patients was very apparent. I am grateful that all these great surgeons are also very unselfish teachers, very accommodating, and hospitable.

The variety of hospital set-ups, individual surgeon techniques and preferences, implant availability, and patient selection at each facility allowed us to learn from a wide range of approaches and apply what is most useful in our own hospitals.

At Paley Orthopedic & Spine Institute in West Palm Beach, FL, Dr. Paley does a wide variety of cases, and seems to do a thousand things at once. Rubin Institute for Advanced Orthopedics, led by Dr. Herzenberg and Dr. McClure, is a big group practice in a multi-disciplinary hospital with

residents together with clinical and research fellows. In addition to limb reconstruction surgery, they have a pediatric orthopedics practice and are involved in mission work.

Dr. Lobst at Nationwide Children's Hospital in Columbus, Ohio, operates at a more deliberate pace, analyzing each case and carrying out research projects. At Texas Children's Hospital in Houston, we learned from a variety of experts and saw a wide range of deformity cases, and I observed procedures that I had never seen before.

At the end of the fellowship, we had a few days off and then we attended the annual LLRS Meeting in Portland, Oregon. Dr. Richard Gellman, a SIGN Board Member, graciously invited me to his home so I can maximize the time to learn from him, including visiting his hospital and observing surgeries. I was deeply encouraged with his dedication and generosity to help developing countries through SIGN by empowering surgeons and



**Dr. Valera (left) and Dr. Hammouda (center) learn from Dr. Lobst and his use of Taylor Spatial Frames (TSF) to correct limb deformities.**

equipping us so we can do the right surgery and help so many. The LLRS meeting was an avenue to learn so much more from paper presentations, workshops on advanced frame constructs, and building relationships with mentors and colleagues. The knowledge gained from our fellowship was re-affirmed by didactics, Sawbones exercises, and new ideas/techniques introduced as well. This was indeed a perfect ending to what has been a life-changing, mind-provoking, and practice-re-inventing LLRS Traveling Fellowship.



**Drs. Valera and Hammouda at (above) Paley Spine and Orthopedic Institute and (right) Rubin Institute for Advanced Orthopedics.**



# Kenya: Limb Deformity Education

By Dr. Michelle Foltz and Dr. Mohan Belthur

SIGN provides ongoing educational opportunities for surgeons on an increasing range of orthopaedic topics. This summer, a group of orthopaedic specialists from the US taught an *Essentials of Limb Reconstruction* course, endorsed by the Limb Lengthening Reconstruction Society of North America, in Eldoret, Kenya. Drs. Richard Gellman, Michael Krosin, Ken Thomas, Michelle Foltz, and Mohan Belthur developed a four-week virtual pre-course before the live course in Eldoret. This included didactic lectures, Sawbones workshops, case-based discussions, and pre-, intra-, and post-operative planning for taking care of patients with complex limb deformities.

## Creating Local Capacity

The co-organizer and head of the limb deformity section of the orthopaedic department, Dr. Kevin Agwata, identified patients who would potentially benefit from such surgery. He organized to help residents, orthopaedic surgeons, scrub techs, and nurses from Moi Teaching and Referral Hospital take part in the course, as well as staff from hospitals in Nairobi, Kijabe, and Kisumu. The course included Sawbones workshops, live surgeries, follow-up procedures, and reporting cases to the SIGN Limb Deformity Database. A WhatsApp “Kenya Limb Deformity” group was created three months ahead to discuss and select appropriate cases for the course and continues to be a source of support for the Kenyan surgeons. Dr. Rahul Vaidya, an orthopaedic surgeon



Above: Surgeons at the *Essentials of Limb Reconstruction* course in Kenya.

Below: Dr. Agwata follows up with Benson, whose leg is being lengthened.

from Detroit, shared his free bone deformity correction planning app with the surgeons and taught us how to use it in a remote session.

## Partnership

Dr. Gellman involved residents from US orthopaedic programs to prepare patients, making them integral members of the team and fostering connections to continue to work in international settings. Todd Neal, a Smith and Nephew representative with long experience in working with the TSF, helped in constructing and teaching the mechanical intricacies of using a circular external fixator. OrthoPediatrics donated equipment for use in pediatric cases. SIGN Board Member Randy Huebner organized instruments, while SIGN shipped instruments and continues to provide an ongoing central database for communication and teaching. Dr. L.K. Lelei, the Head of Orthopaedics in Eldoret, gave his support and encouragement throughout the program.

## Detailed Teaching

Having such a large team gave many advantages for teaching. While two

visiting surgeons were scrubbed with the Kenyan surgeons teaching in the operating theater, two others taught in the Sawbones sessions, performed educational ward rounds, or attended clinics. Having four experienced surgeons all discussing complex cases during morning conferences and on the ward, each coming with their own ideas and eagerly weighing the pros and cons of various treatment plans, provided a lively learning environment for everyone.

## Transformative Care

Performing surgery that can transform a patient’s damaged, painful leg into a functional extremity holds benefits for patients and surgeons; teaching such skills multiplies the benefits. Not only is the patient’s quality of life improved, but they are empowered to support their family and resume being a productive member of the community. The teaching surgeon increases their knowledge and finds meaning and purpose in their work. The local surgical team feels motivated and empowered to master skills to create a locally sustainable center of excellence for treating these complex problems. This course fostered a sense of camaraderie and connection within the team, while the visit helped develop a lifelong mentoring relationship between the US and Kenyan surgeons.







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## How You've Helped This Year...

As of Aug. 2022

**19,416**

**Patients Healed**

**24 SIGN**

**Programs Started**

**245**

**Hospitals received implants**

**53**

**Countries have been sent shipments**

**8**

**SIGN Trauma Session Webinars**

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# 2022, a great year to match!