



Pre-op



Post-op



Thanks to support from his family and the care from SIGN Surgeons, Ko can squat, smile, and work again.

Patient & Family Very Thankful for SIGN Surgery!

Like the majority of people in Hlaingtharya Township, Myanmar, a suburb of the capital city Yangon, Ko Phone Hoe Man commutes to work on a motorcycle. He is a day laborer, working a variety of jobs around the city.

One fateful day, he was in a motorcycle accident that caused fractures in the two bones (tibia and fibula) of his lower right leg. Ko went to the closest hospital, and was preparing for surgery when he learned how much it would cost to get a commercial implant to treat his fracture. He searched for ways he

could purchase a nail, and tried to raise the money needed through friends and family, but it was not enough.

He sat in the hospital bed and despaired for his broken leg. Without proper care, the bone would heal in an improper position and cause pain or disability for the rest of his life. That would mean he could not work and his family would be pushed into poverty.

After a month and a half in the hospital, he discovered the Mobile SIGN Program, run by Dr. Aung, on Facebook. He contacted the team

and was transferred to Yangon Orthopaedic Hospital, which has a SIGN Program. In that hospital, his fracture was successfully treated with a donated SIGN Implant.

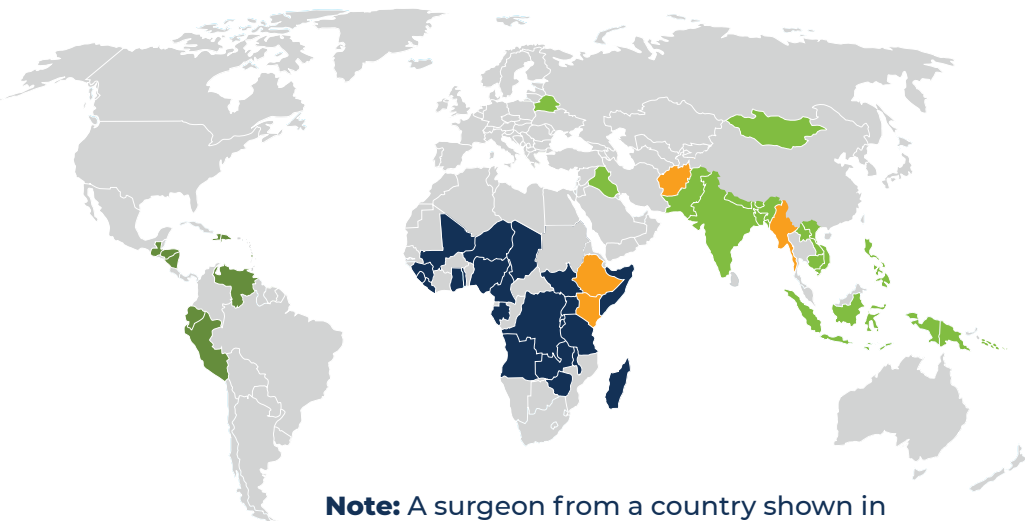
Now he is back to work and able to support his family again. Ko and his family are very happy, and they are grateful to SIGN and the donors who made his surgery possible.

Every \$150 you donate enables a person to get the necessary care to heal from a fracture and return to their family and their work. Please use the enclosed form or give online at signfracturecare.org/donate

What SIGN Means to Surgeons

SIGN is a network of surgeons, a community of people with a common goal, and a family. We cherish our connections and families all across the globe. Because we are pivoting the SIGN Conference to digital learning opportunities this year, we will miss what we often think of as a SIGN Family Reunion: greeting our friends from around the world. Many surgeons have shared how SIGN is family to them, and we want to share their messages with you. We've included four messages this month and future newsletters will include more messages from SIGN Surgeons.

Countries with SIGN Programs



Note: A surgeon from a country shown in orange has a message listed on this page.

Dr. Samuel Hailu, Ethiopia



“There is no way we would be doing what we are doing right now if SIGN was not in Ethiopia. We saw patients getting up and going around after a few days from surgery as opposed to staying in bed for 3 months. That really excited

a lot of young, energetic people to join SIGN Family and to join orthopaedics. Now we are extending our hands to the neighboring countries in terms of training and equipping others, through the help of SIGN, to fix pelvic fractures.”

Dr. Aung Thein Htay, Myanmar



“SIGN always helps us when we request the help from them, very timely and very effectively, including shipment including education, every aspect. Let me express our great honor to the SIGN Staff from our Myanmar programs. Thank you very much.”

Dr. Daniele Sciuto, Kenya



“At the beginning, I thought SIGN was the nail itself. I realized that the nail is just the last part of the chain. To me personally, it is how you cultivate the doctor to grow. I have been changed as a doctor. I feel now I am a better

doctor. I have better skills, better quality, better understanding of the problem, better attitude. This is what I found most amazing about SIGN.”

Dr. Mohammad Wardak, Afghanistan



“We started SIGN Surgery since 2007, and we are doing a lot of surgeries, especially for war-wounded patients. Every time we do a surgery, we see a smile on the faces of our patients.

It is not only the smile of our patients, but the smile goes to their families and their surgeons and directly to SIGN Headquarters.”

Nail Study Helps Pediatric Patients

By Lewis G. Zirkle, MD



Dr. Liu (left) and Dr. Batzorig (right) met and shared their research at the annual SIGN Conference.

SIGN is proud to announce that Dr. Raymond Liu, pediatric surgeon from Case Western Reserve University, received the Akbrania Scientific Poster award from the Pediatric Orthopaedic Society of North America for his work defining the use of SIGN intramedullary nailing to treat distal femur fractures in children without damaging the epiphysis, or growth center.

Fractures of the femur near the knee are very difficult to treat in children. The fastest growth center of the bone is in this area and surgeons for years have been told

not to disturb this growth plate. Current recommended treatment is traction, which leaves a child in the hospital for several weeks, or other less satisfactory ways.

The idea for treating these fractures by placing a nail directly through the growth center was started in Ethiopia. We saw a herd of sheep going to the market as we were contemplating how to treat these fractures. Dr. Biruk Wambaso arranged for us to visit a veterinary clinic where we operated on two sheep, whose age was equivalent to human pediatric patients. Dr. Biruk took the sheep home to care for them. Studies on these sheep did not show damage to the growth center.

Dr. Raymond Liu and his orthopaedic residents conducted many more sheep studies that also showed no damage.

We then discovered that surgeons in Mongolia were using this method in human pediatric patients. Follow-up study showed no growth changes in these children, depending on whether the correct technique was used. Dr. Liu traveled to Mongolia to meet with Dr. Batzorig and examine the patients. This visit and the sheep

studies at Case Western Reserve University won the scientific poster award.

Other SIGN Surgeons have begun using this technique and we will continue to follow these patients on our database. This innovation will help many young children with femur fractures receive improved treatment throughout the world, and is an example of many surgeons coming together from many parts of the world to discover the best treatment for their patients.

Dr. Liu's paper 'Retrograde intramedullary nailing of pediatric femoral shaft fractures does not result in growth arrest at the distal femoral physis – a retrospective cases series' is expected to be published in the Journal of Trauma in 2020.



First SIGN Pediatric Nail patient.



Dr. Wambaso cared for the sheep for several months, then performed surgery to confirm that the pin did not damage their growth plates.

Pediatric Orthopaedic Society of North America



Behrooz Akbrania Scientific e-Poster Award

Presented to

Raymond W. Liu, MD

In Honor of Behrooz Akbrania, MD, recipient of the 2020 Distinguished Achievement Award, for presenting the outstanding Scientific e-Poster at the 2020 Annual Meeting entitled

"An Ovine Study of Locked Intramedullary Implants Across the Distal Femoral Growth Plate"

Thank you!

SIGN
SUMMER
Bash



Thank you for helping raise more than **\$70,000** to complete a **Procedural Learning and Bioskills Lab** at SIGN. That will be **matched** to provide even more educational opportunities for surgeons around the world.



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SIGN Trauma Sessions
Humerus Fractures

July 31
at
7am PDT

In the spirit of providing continuing education, SIGN Surgeons are invited to attend the inaugural SIGN Trauma Sessions webinar, moderated by Dr. Lewis Zirkle.

This session will explore humerus fractures and feature presentations and case studies from three special guests.

The webinar will be held on Zoom and is scheduled to begin on July 31, 2020 at 7:00am PDT. Surgeons can pre-register for the webinar by: **CLICKING HERE**.

This webinar will be recorded and posted on **thehub** after the event, along with all of the presentation materials.

2020
Conference
Canceled

2020 **SIGN**
INTERNATIONAL ORTHOPAEDIC
CONFERENCE
Sept. Online Conference

Moonlight Masquerade
A Virtual Event to Make Healing a Reality



Save the Date
October 22