

The Right Treatment

By Ryan Smith, SIGN Communications Specialist

SIGN Surgeons around the world are providing limb-saving and life-transforming surgery. When someone like Desalegn, a 22-year-old from Ethiopia, is injured in a traffic accident, SIGN Surgeons are ready to provide the right treatment.

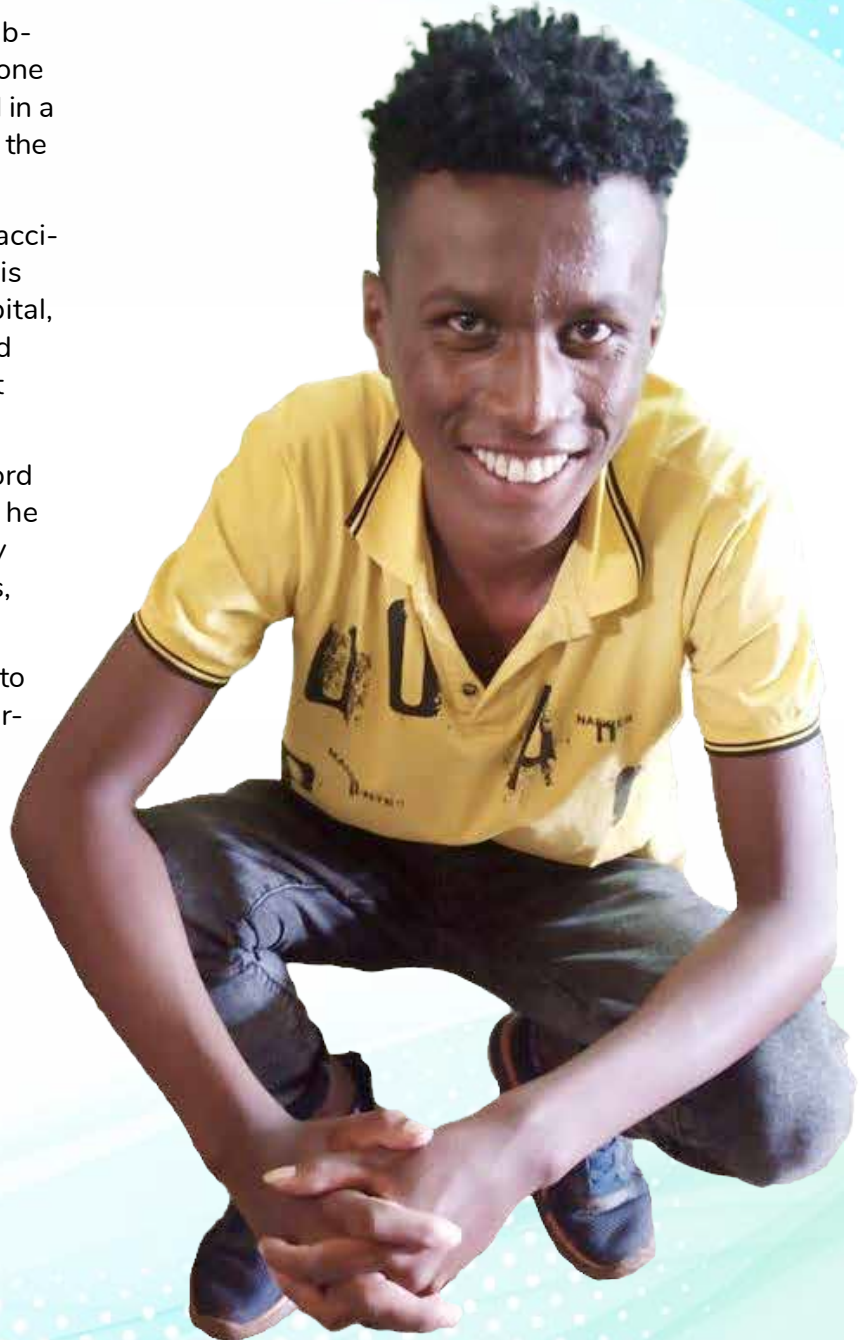
Desalegn suffered a fractured right femur in the accident, and he could not stand or bear weight on his injured leg. He went directly to Aira General Hospital, where Dr. Teshale Ayana examined the injury and determined that a SIGN Nail was the right treatment to stabilize the bone and enable it to heal properly.

Desalegn feared that he would not be able to afford surgery, but because the SIGN Nail was donated, he received it at no cost. And because SIGN Surgery enabled him to leave the hospital in just four days, his overall hospital bills were minimal.

Just three weeks after his injury, Desalegn walked into the hospital for a checkup, and seven weeks after surgery, he was able to perform a full squat and smile, which indicates a full return to function.

You can give the life-changing solution of SIGN Surgery to help the next patient in need recover from a bone fracture! When you give now, you will be helping twice as many people receive healing surgery. The first \$500,000 received from Nov. 1-Dec. 31, 2023, will be matched.

Use the enclosed form or go to www.signfracturecare.org/donate



SIGN Surgery helped Desalegn get back on his feet quickly after a traffic accident.

Caring for More Injured People

By Lewis G. Zirkle, MD

When we give to charity, we want the gift to be used to help many people and benefit them in a meaningful way. SIGN certainly fulfills that requirement, because without surgery to reduce and stabilize the fracture, an injured patient is destined for a life of pain and disability.

SIGN has been the only hope for more than 418,000 poor people who have been injured in low- and middle-income countries (LMIC). SIGN Implants are only used for impoverished people, and they are not charged for the implant or use of the instruments. These people often have no choice in their treatment, so we must give them the best treatment. Their smiles after surgery indicate their happiness and gratitude for the chance to return to an active life.

Without SIGN, these hard-working people would be confined to bed, many would die early, and others would live a life of agony and dependence on their families.

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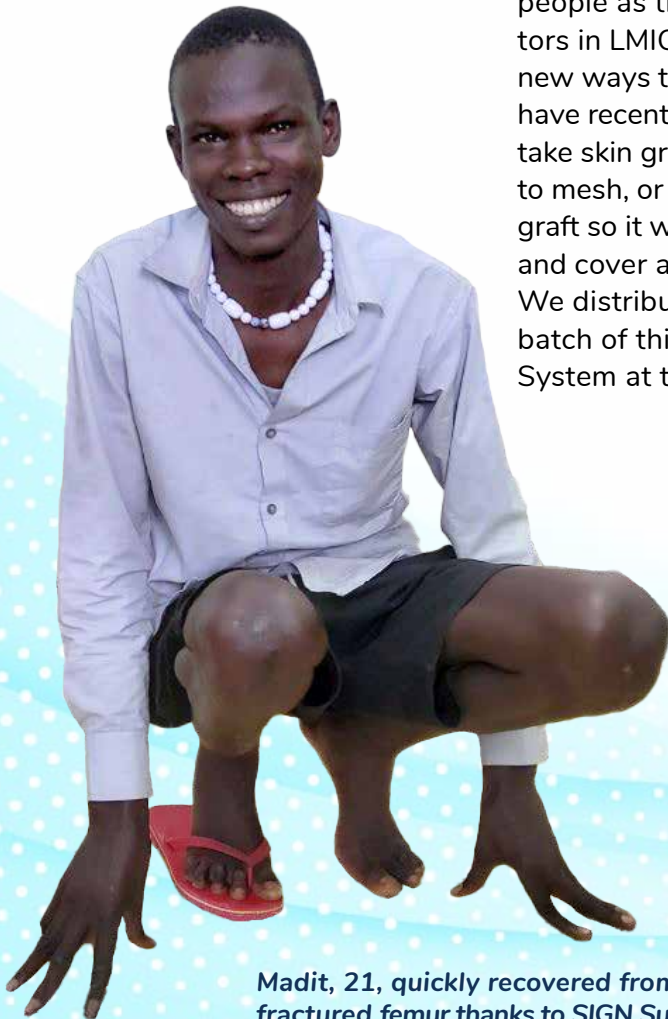
The World Health Organization estimates that when a family's breadwinner is disabled, the whole family is pushed toward poverty for three generations.

SIGN is being used to treat more people as the word spreads to doctors in LMIC. We continually look for new ways to help our patients. We have recently developed a device to take skin grafts and another device to mesh, or put holes in, the skin graft so it will take better and cover a wider area. We distributed the first batch of this Skin Graft System at the recent

conference, and it will help surgeons cover severe wounds and speed up healing time.

Injuries to the spine cause disability unless treated properly and promptly. We are working now with programs in Tanzania and Kenya and looking for other opportunities to treat spinal injuries. Spine surgeons from Canada, Indiana, and New York City are all working on this project. Randy Huebner, a very talented engineer, generous benefactor, and a SIGN Board Member, has designed a pedicle screw, which is commonly used to treat spine fractures. We are in the process of testing it and examining it to see its usability. We are comparing it to pedicle screws made by commercial companies, and the results are favorable.

This is a big undertaking, but we are confident we can accomplish this and be of even bigger service to injured and impoverished people.



Madit, 21, quickly recovered from a fractured femur thanks to SIGN Surgery at Kumi Orthopaedic Center in Uganda.



Dr. Sami Hailu, from Ethiopia, practiced using a mesher from the SIGN Skin Graft System during a Bioskills Lab session at the SIGN Conference.

The SIGN Nail

By Ryan Smith, SIGN Communications Specialist

The SIGN Vision is to create equality of fracture care throughout the world. The harsh reality is that a person injured in a high-income country has many more options for immediate health care and the resources to pay for it. People in low- and middle-income countries (LMIC) don't have the same access to hospitals, orthopaedic specialists, and implants needed to care for fractures.

SIGN makes intramedullary nailing—the gold standard of long bone fracture care—accessible to patients in LMIC. The SIGN Nail is a solid stainless-steel rod that is inserted into the bone canal of a fractured long bone, then held in place by interlocking screws to stabilize the bone and enable healing.

The nail aligns bone fragments so they heal in the proper position. Screws hold the construct together and prevent rotation, so bone fragments stay in contact with each other and heal quickly and securely. Together, they provide support for the patient's limb so they can walk the day after surgery while the bone heals.

We have continued to innovate on the design, including developing SIGN Fin Nails, which do not require interlocking screws at the distal end, making surgery simpler and significantly faster. The SIGN Pediatric Nail uses fins, like the Fin Nail, and is scaled to better fit in young patients. The interlock bypasses bone growth plates and the fins allow the implant to slide inside the bone canal, so it does not inhibit growth.

SIGN designs and manufactures these nails at our facility in Richland, Washington, and—because of faithful support from our donors—we are able to donate them to hospitals in LMIC at no cost for patients. This ensures that impoverished people can access the care they need to recover from a traffic accident or fall.

You can give the gift of healing by donating a SIGN Nail to an injured and impoverished person today. Use the enclosed form or go to www.signfracturecare.org/donate



SIGN Machinists create 30,000 SIGN Nails per year, along with SIGN Instruments, Screws, and more.

Standard IM Nail



Fin Nails



Pediatric Fin Nails



Series V Step Screws



\$175 for SIGN Surgery

For many years, we have said that \$150 provides one SIGN Nail for a patient. Through manufacturing process improvements and efficiencies, we have been able to maintain that remarkable cost and donate more than 418,000 nails.

In the last year or two, our costs have risen — including purchasing raw steel, shipping, and overhead, making the cost to produce a SIGN Nail \$175.

This is still an incredible value for an orthopaedic implant. Our costs include the design, manufacturing, and shipment to the hospital, and still come in at less than 10% of the cost of commercial implants available in the US.



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**How You've
Helped This
Year Through...
October 2023**

21,634
Patients Healed

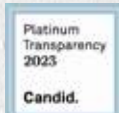
20 SIGN
Programs Started

234 Hospitals
received implants

51 Countries
have been sent
shipments

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Meets all 20
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See SIGN's privacy policy and state disclosures at signfracturecare.org/privacy

Season of Giving

Double Your Impact!



**All gifts received
through Dec. 31, 2023
will be matched, up
to a total of \$500,000.**