

# Humanitarian to the Bone

Six feet tall and of average build, he looks like any other reasonably fit orthopedic surgeon. (Except for his impressive forearms [toned from carrying two seventy-pound bags of medical hardware wherever he goes], nothing about him particularly suggests that this is a man moving mountains in the developing world.

But he is. Lewis Zirkle Jr., M.D., of Richland, Washington, launched the nonprofit **Surgical Implant Generation Network** ([signpost.org](http://signpost.org)) in January 1999. He and his team designed

and manufactured a system for fracture treatment for use in countries where sophisticated imaging equipment is not readily available. The method: a stainless-steel rod, called an IM nail, with predrilled holes at each end, is inserted through the bone canal to join fractured pieces; two permanent screws lock the nail in place. SIGN's engineers also invented a mechanical targeting arm to guide the surgeon inserting the screws. Thanks to Zirkle, 4,000 surgeons from 160 hospitals in forty-four countries have put

more than 45,000 fracture patients back on their feet with SIGN implants.

Duke University, Kiwanis International and the American Academy of Orthopedic Surgeons, among other organizations, have presented Zirkle with humanitarian awards. Meanwhile, Zirkle partly funds SIGN himself through his private practice. Facing catastrophes around the globe—a tsunami in Indonesia, a cyclone in Myanmar, an earthquake in Pakistan—he repairs a broken world one nail at a time.

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