

# DISTRACTION

THE NEWSLETTER OF ASAMI - NORTH AMERICA  
*The Limb Lengthening and Reconstruction Society*

---

Volume 4, Number 1

Editor: Stuart Green, MD

November 1996

---

## How the Ilizarov Method Came to North America

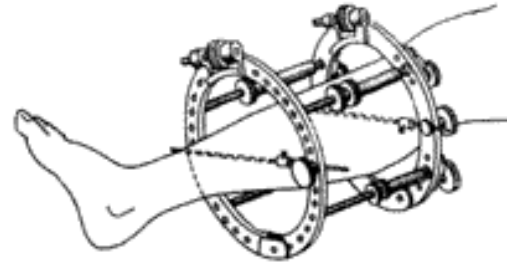
by Stuart Green, M.D.

Presented at the Tenth Anniversary Conference of the Ilizarov Method

By considering the "Ilizarov Method" to encompass all circular tensioned-wire external skeletal fixation, the presenter pointed out that such a technique of securing bone fragments was actually started in North America by Bittner in 1929. Moreover, by noting that the Caribbean Islands are part of the North American continent, the pioneering efforts of Cuban orthopedic surgeons were acknowledged in the presentation outlined below.

## Joseph E. Bittner, MD

- 1929: Develops circular tensioned-wire external fixator for fracture reduction in Yakima, Washington. Wires tightened by expanding hinged ring. Device is removed after cast is applied.
- 1933: Published description of device in German medical journal. Influences all future circular fixators.
- 1938: Russian surgeon Pritsovsky develops circular tensioned wire fixator.
- 1948: German surgeon develops circular tensioned wire fixator.



Bittner's 1929 fixator from Volkov & Organesian (1987)

## Cubans

- 1975: Cambras and Seballos begin competing Ilizarov centers in Cuba after learning method from Russia allies.
- 1981: Seballos publishes book on Ilizarov method in Spanish.

## David Fischer, MD

- 1976: Visited Sharrard, Wagner, and Volkov and Organesian; brought back Russian fixators including Ilizarov device.
- 1979: Displays Russian fixators at AAOS Annual meeting.
- 1979: Develops Ace-Fischer circular fixator, secured to bone with pins instead of wires.
- 1981: Tries Ace-Fischer fixator of femoral lengthening; frame and pins bend.

- 1981: Starts using Ace-Fischer for tibial lengthenings with Wagner technique.
- 1981-1984: Performs many limb lengthening by Wagner technique.
- 1984: Designs wire tensioner and wire clamps to use Ace-Fischer fixator for physal distraction (after Spinelli & Monticelli's 1983 article in CORR)
- 1984: Performs tibial physal distraction with Ace-Fischer fixator and tensioned wires. Makes good bone but patient develops equinus contracture.
- 1985: Performs distraction osteogenesis with Orthofix device following corticotomy by DiBastiani open method after Mark Dahl visits Verona.

## Dean MacEwen, MD

- July 1983: Invited (with Sarmiento) by Bombelli to hear Ilizarov lecture in Northern Italy. Buys components.
- July 1983: Makes presentation at DuPont Institute, stimulating interest of James Aronson, MD.

## James Aronson, MD

- January 1984: Visited Bombelli (Legano) and the Lecco Group.
- 1984: Started dog research comparing Wagner to Ilizarov techniques using homemade ring fixator, 7 day latency, 0.25 mm q6h rate of distraction.
- February 1985: Performed 6 cm distraction osteogenesis using Wagner device.

## Victor Frankel, MD

- May 1984: See Ilizarov Device in Barcelona, Spain.

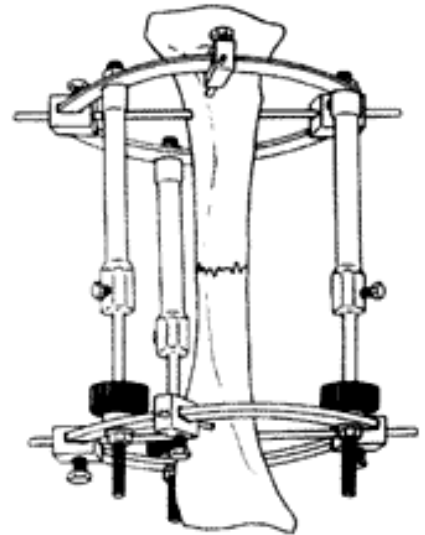
- September 1984: Invited to Milan by Bianchi-Miocchi; sees patients, surgeries-takes apparatus to HJD for testing.
- May 1985: Visits Lecco with Jack Blair of Richards Medical Company who becomes interested in market potential.
- December 1986: First application of Ilizarov fixator: a patient with infected non-union of distal tibia.
- May 1987: Joins Stuart Green in Kurgan; invites Ilizarov to Hospital for Joint Diseases in New York for alumni lecture.
- November 1987: Hosts Ilizarov in NYC. Puts on first Ilizarov workshop with Dror Paley.

## Dror Paley, MD

- October 1983: Hears Bombelli describe bone transport at Toronto East General Hospital.
- February 1984: Get Ilizarov literature from Bombelli at AAOS meeting.
- July 1985: Visits Frankel in NY on recommendation of Jack Blair after winning Richards resident research award.
- September 1985: one week trip to Lecco.
- July-December 1976: Fellowship in Europe visiting centers doing Ilizarov surgeries.
- September 1986: First North American to visit Kurgan (with international group attending conference and workshop).
- April 1987: Begins Ilizarov surgeries in Toronto
- November 1987: Completes 52nd case in Toronto; moves to Baltimore.

## Stuart Green, MD

- 1975: First Hoffmann application in Western USA.
- 1979: Scientific exhibit at AAOS on complications of external fixation. Sees Russian fixators of David Fischer.
- December 1981: Book "Complications of External Skeletal Fixation" containing first published illustration and description of Ilizarov ring fixator (but no note of distraction osteogenesis).
- August 1985: Visits DiBastiani and Group in Verona; sees corticotomy, achondroplasia lengthenings.
- September 1986: Hears Lecco group presentation at Orthofix Congress in Italy; meets Dror Paley; visits Lecco to see patients.
- October 1986: Applies Ace-Fischer with thin wires and special wire grippers (made by Ace for MacEwen) to adult with delayed union of proximal tibia.
- February 1987: First bone transport case in USA with copy of Ilizarov apparatus left at Rancho Los Amigos by Tranquilli-Loyali.
- May 1987: First American to visit Kurgan, joined by Victor Frankel.
- November 1987: Hosts Ilizarov lecture in Long Beach, California; Ilizarov reviews 12 cases at Rancho and leaves lecture text and slides in California for editing and publication in CORR.
- 1989: Assists Ilizarov in publication of two CORR articles on "The Tension-Stress Effect on the Genesis and Growth of Tissues."
- 1990: Assists Ilizarov in publication of CORR article on "Clinical Application of the Tension- Stress Effect for Limb Lengthening."
- 1990-1991: Editorial Assistant for Ilizarov book "Transosseous Osteosynthesis."



---

# DISTRACTION

THE NEWSLETTER OF ASAMI - NORTH AMERICA  
*The Limb Lengthening and Reconstruction Society*

**Editor: Stuart Green, MD**

3801 Katella Ave. Suite 130  
Los Alamitos, CA 90720

Tele: 310-430-3561

Fax: 310-431-8882

Email: [sgreen@uci.edu](mailto:sgreen@uci.edu)

---

[Return to DISTRACTION Archive](#)

[RETURN TO ASAMI HOME PAGE](#)