Cunningham Clubfoot Brace
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What is Clubfoot?

Our foot anatomy expert: Noah Charleston
Clinical Implications

- Mobility
- Calf strength and size
- Footwear
- Arthritis
- Self-image
Clubfoot treatment over 4 – 6 weeks
Boots and Bar

- Steenbeek
- Iowa Brace
- MiracleFeet Brace
- Dobbs
Advantages of Cunningham Brace

- Reduced treatment period
- Fewer sizes throughout treatment
- Greater comfort increases compliance rate
Cunningham Brace

◎ Thigh Cuff
◎ Knee Hinge
◎ Descending Spiral
◎ Foot Shell
Manufacturing Methods

- **Machining**
  - Labor intensive
- **Injection Molding**
  - Large investment
    - $10,000 a mold
- **3D printing**
  - Adjustability
  - Easily Accessible
3D Scan
Outsourced 3D Printing

- Ease of use
- Cost to print: $61.35
Characterizing for 3D Print

Goal: Reproduce Cunningham brace in Kenya
3D Printing Modifications

Modify
- Material
- Print settings
- Design
Hygiene

- Bacteria Growth
- Protective Coatings
Future

◎ Trip to Kenya
◎ Modify 3D printing
◎ Newborn brace
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Our Clients/Partners

Jerald Cunningham
-Brace Designer

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-CURE Representative
Questions or Comments?