

# 3D-Printed Fracture Casts: An Innovation on a 180-Year-Old Medical Practice



Powered by 3D2GO  
SCAN | DESIGN | PRINT

## The first clinically and scientifically validated 3D-printed fracture cast.

Lightweight • Breathable • Washable



Customizable to suit individual patient requirement



Design for comfort and airflow



Lightweight and water-resistant



Long-lasting and resistant to shocks



Sustainable and recyclable



### Challenges of Traditional Medical Cast



- Heavy and bulky
- Poor breathability
- Less precise fit
- Risk of complications

## Ready for relief? Choose comfort today!

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**Greater Metropolitan Area, Philippines May 18, 2026 ([IssueWire.com](https://www.IssueWire.com))** - My3D Concepts today proudly announced the official launch of Orth2Go, a groundbreaking new technology designed to completely transform Orthopedic Field. Engineered from the ground up to address medical fracture casts, 3D-printed fracture casts deliver unparalleled comfort, precision, and style.

Unlike traditional medical casts, Orth2Go utilizes proprietary 3D scanning and printing technology to empower physicians to provide the best product for their patients. This release marks a significant leap forward in the orthopedic sector, positioning Orth2Go at the forefront of innovation.

“We saw a massive lack of innovation in the market where patients were forced to compromise between plaster de Paris and fiberglass,” said Dr Rene Catan, renowned orthopedic surgeon. “With Orth2Go, we didn’t just iterate on existing designs; we built a completely new solution that removes those pain points entirely, giving our patients the product they need to heal comfortably. We are thrilled to bring this to market today.”

### **Key Features and Benefits of 3D-Printed Fracture Casts include:**

- Designed for comfort and airflow
- Scanned for Precision fit
- Customizable to patient requirements
- Lightweight and water-resistant
- Shock-resistant
- Sustainable and recyclable

### **The Science Backs It Up**

**PLA — Polylactic Acid** is used to ensure the casts are strong enough for the demands of daily wear. While **TPU — Thermoplastic Polyurethane** is used when a cast needs to flex with the body. TPU offers excellent durability and comfort for areas that require some degree of movement.

All casts undergo a rigorous **Finite Element Analysis (FEA)** — the same engineering method used in aerospace and automotive design — to confirm it can handle real daily use. Here’s what the analysis confirmed:

**Von Mises Stress:** 0–97.83 psi — well below PLA’s yield strength, meaning safe stress levels under normal use.

**Factor of Safety:** 3.5x — the cast can withstand 3.5 times the applied load before failure.

**Displacement:** 0–0.06 mm at 300N — minimal deformation, even under significant force

### **Downside of Traditional Medical Casts (Plaster de Paris)**

- Risks of complications
  - Deep Vein Thrombosis (DVT)
  - Compartment Syndrome
  - Soft Tissue Swelling

- Pressure Sores
- Venous Congestion
- Poor breathability making them slow to dry and cause bad odor
- Heavy and bulky
- Inexact fit (less precise)

## About Orth2Go

Orth2go is the brainchild of Dr. Rene Catan and Engr. Fred Chua. Dr. Rene Catan is a renowned Filipino orthopedic surgeon recognized for his work in developing affordable and locally made orthopedic solutions. His expertise bridges orthopedic surgery, biomechanics, and medical innovation. Fred led My3D Concepts (Silikon Technologies and 3D2Go) to become the first company to commercially manufacture a locally-made PAPR called “Aircube” — used in hospitals across the Philippines and sold to thousands of frontline healthcare workers. For more information, visit <https://www.orth2go.com>.

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