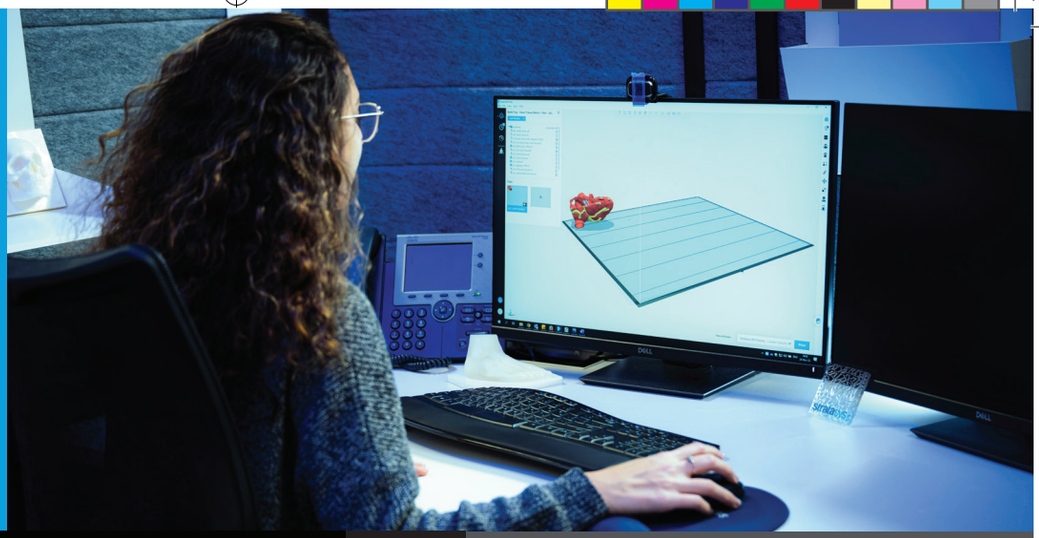


3D Printing Solutions for Medical Innovation

Brochure

stratasys

The Stratasys portfolio of medical modeling solutions is revolutionizing patient-specific care, standardizing medical education, and driving research and innovation—all while delivering long-term efficiency and cost savings for clinical, educational, and manufacturing applications.

Whether you represent a hospital, academic medical center, small medical OEM, or medical device manufacturer, Stratasys has the perfect 3D printing solution to meet your specific medical application needs.

J5 MediJet™

Compact, all-in-one medical modeling.

In an environment where healthcare is increasingly measured by quality outcomes, hospitals need to be able to create anatomical models for training and education and improve clinical outcomes, and patient education, in a robust, yet affordable way.

And small medical OEMs are under more pressure than ever to reduce product development costs, speed time to market, and offer best-in-class sales rep and provider education.

The J5 MediJet 3D printer creates ultra-realistic, full-color anatomical models for improved clinical outcomes, education, and testing. Its large tray—but lab-friendly, small footprint–-accommodates multiple medical models in a single print, requiring significantly less handling. And with a lower total cost of ownership, MediJet is designed to maximize your investment in 3D printing.

Hospitals

Meet quality outcomes with unparalleled training, point-of-care planning, and patient-specific guides and tooling.*

Provide an invaluable tool for treatment decision-making and patient education.

Give physicians an invaluable tool to understand complex anatomy and work with the team on the best approach. The J5 MediJet has a unique solution that enables full-color model sterilization for reference during a procedure.

Improve clinical outcomes.

Save time and cost, and minimize risks associated with lengthy OR time with patient-specific per-case planning Print materials are biocompatible and meet sterilization requirements so providers can reference the model during a procedure.

Maximize your investment in 3D printing.

With less upfront investment and a lower total cost of ownership, MediJet offers multi-material, full-color, biocompatible printing in a single tray to accommodate more 3D printing requests at the same time, with less handling.

Small Medical OEMs

Improve product and training quality.

Offer best-in-class training and education.

With a small footprint, MediJet prints precisely accurate anatomy on demand. Train anywhere—no storage requirements or ethical concerns associated with animal and cadaver models.

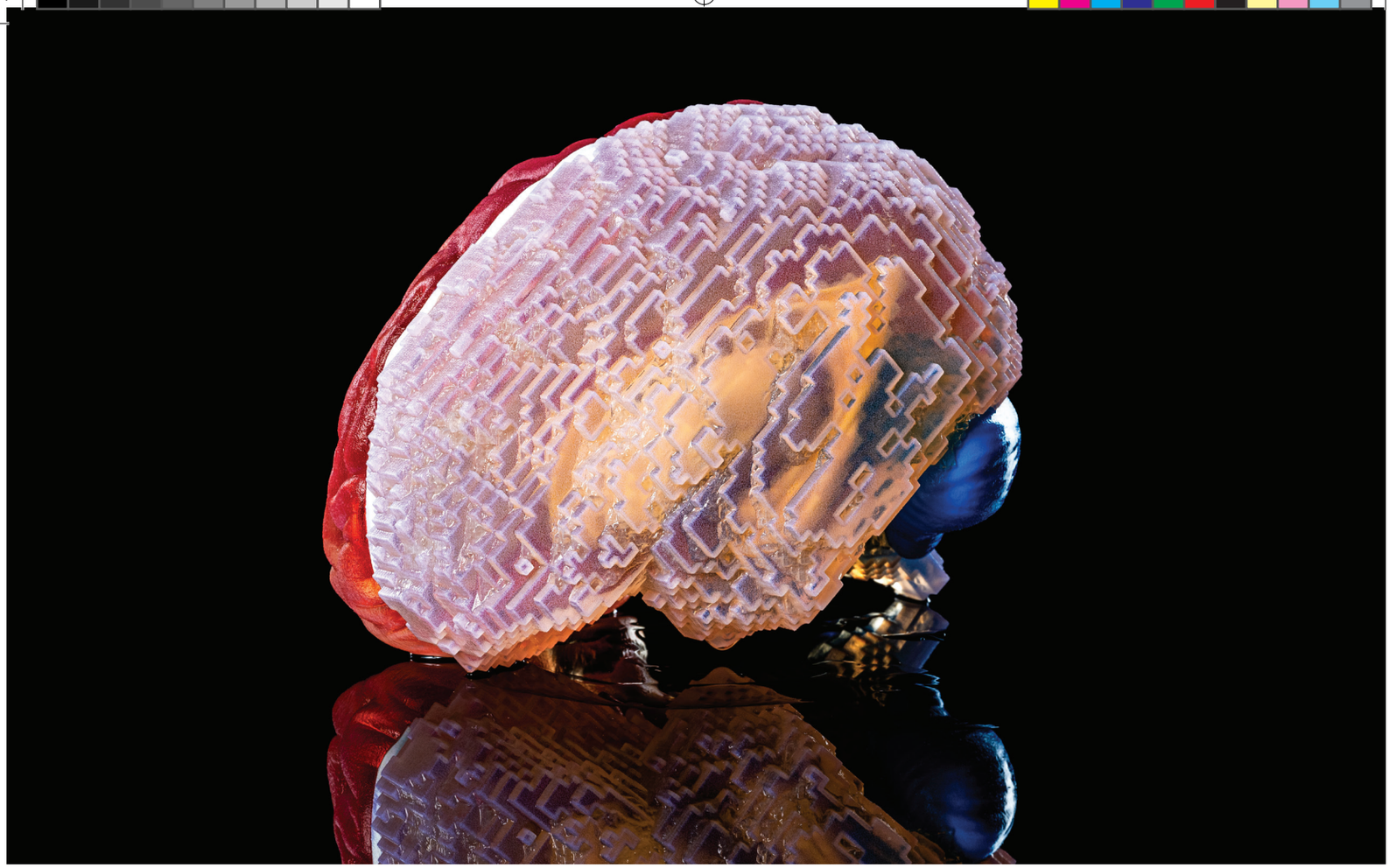
Ensure repeatable outcomes.

MediJet creates accurate anatomy models for repeatable benchtop testing and consistent training. Enhance product and training quality, reduce costs, and accelerate time to market.

Minimize manual labor and maximize production without sacrificing quality.

With a large tray, you can create more models in a single print. Create accurate, full-color, high-quality models in less time with less handling.

*with approved 3rd party 510k cleared segmentation software



Unique materials and a lower total cost of ownership make the J5 MediJet a go-to for biocompatible parts and medical models.

Model and support materials

- **Biocompatible Rigid Transparent (MED610)**
  Transparent, sterilizable, biocompatible material medically approved for bodily contact, which can be mixed with other materials.
- **Biocompatible Opaque (MED615RGD™ IV)**
  Rigid Ivory, sterilizable, biocompatible, and medically approved for bodily contact.
- **DraftWhite (MED857)**
  Opaque, UV-resistant, low-cost material that can lower the cost of single material applications and bulk color models.
- **Rigid Transparent: Vero™ Vivid family**
  Provides unique multicolor capabilities to produce sterilizable, smooth, accurate, and realistic models.
- **Biocompatible Digital ABS Plus (MED531 and MED515+)**
  Durable ivory material ideal for prototyping, end-use parts such as surgical cutting guides, and covers for models to ensure that prints are biocompatible and as durable as possible.
- **Water Soluble Support (WSS150)**
  Support material soluble in water to create delicate parts and complex structures that could otherwise be damaged with high-pressure water jet cleaning.

Digital Anatomy Printer

Radio-realism and biomechanical accuracy.

The Digital Anatomy Printer's advanced medical modeling solution creates ultra-realistic visual and functional models.

Standardize clinical skills and device testing to create consistency across the continuum of care.

Digital Anatomy 3D printed models can replicate the same biomechanical properties as human tissue to minimize variability in device testing and clinical training, which leads to more consistent outcomes for patients.

The power to mimic native tissue and bone structures.[1]				
Complex Blood Vessel Capabilities	**Slice Preview**	**Screw Insertion Strain Relief**	**Long Bone Manipulation**	**Myocardium Consistency**
Create and remove support structures from internal cavities such as small, complex blood vessels.	Visualize individual slices of internal bone structures and confirm pathology, material, and orientation choices.	In orthopedic models, create regions for screw entry so you can place screws without cracking the model.	Autogenerate the intricate, unique structures of bone in each region: proximal, distal, cortical, cancellous, and medullary canal.	Experience the same non-directional behavior as human tissue when force is applied in any direction.

[1] Dahan, Gal, "Synthetic Bones vs. Human Bones for Screws Testing: A Literature Survey," *In progress*, 2020.

Digital Anatomy Printer

Radio-realism and biomechanical accuracy.

Hospitals and Academic Medical Centers

Deliver patient-specific care.

With lifelike anatomical models that look and behave like human tissue, trainees and clinicians can practice on and reference difficult anatomical variations that cannot be observed in animal models or cadaver labs, and use patient-specific anatomical models and tooling in the OR to improve procedure execution.

Standardize medical education.

Medical institutions, schools, and colleges can use visual teaching aids such as anatomical models to facilitate learning and create detailed structures that might not be visible during the cadaver demonstration. 3D printed models also assist in bridging communication with patients and their families.

Achieve key performance indicators.

Whether you're measuring efficiency, outcomes, or cost per part, 3D printing delivers long-term savings for clinical, educational, and manufacturing applications.

Achieve KPIs:

- Shorter procedure times
- Fewer complications
- Better quality outcomes
- Fewer downstream reintervention costs
- Student retention of learned information
- Informed consent from patients and their families
- Better overall patient satisfaction

Medical Device Manufacturers

Drive research and innovation.

3D printing can speed up the time-to-market for novel innovations, and allow medical device manufacturers to more quickly prototype, test, make improvements to designs, and print fixtures and jigs for small in-house production processes.

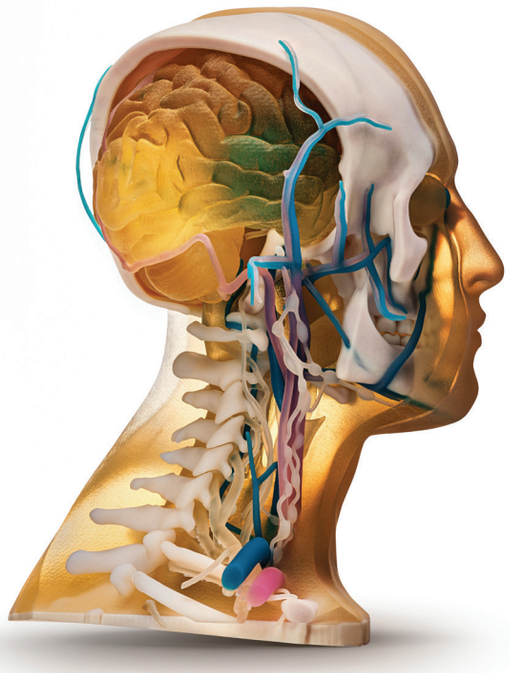
Achieve key performance indicators.

Whether you're measuring efficiency, outcomes, or cost per part, 3D printing delivers long-term savings for clinical, educational, and manufacturing applications.

Achieve KPIs:

- Lower tooling costs compared to traditional manufacturing
- Reduced waste
- Energy efficiency
- Mass customization efficiency gains

Digital Anatomy materials produce unrivaled visual models for demonstration and functional models for training and testing.



Clinically-validated preset anatomy options deposit 3D printing materials to behave with biomechanical accuracy that mimics human tissue and bone like never before.

Four unique base materials provide 100+ anatomical presets.

For the full list of materials, download the PolyJet Medical Material Matrix.

BoneMatrix™	GelMatrix™	TissueMatrix™	RadioMartix™
Complex material depositing patterns mimic porous bone structures, fibrotic tissues, and ligaments.	Unique GelMatrix material and GelSupport™ depositing patterns allow you to print small, complex vascular structures and easily remove internal support material.	Sophisticated material configurations make models that feel and behave like native organ tissue when force is applied.	The RadioMatrix material gives you the power to create medical models that exhibit radio-realistic features under X-Ray and CT.

Side-by-side Comparison

	J5 MediJet	Digital Anatomy Printer
Ideal For	• Visual models for treatment planning • Models for training and education • Models for medical device development	• Biomechanically accurate functional models • Ultra-realistic training and education models • Functional models for medical device development
Key Considerations	• Multi-material, multi-color anatomical modeling • Biocompatible, sterilizable parts on a certified system • Economical solution with lower total cost of ownership • Small, lab-friendly footprint	• Ultra-realistic, advanced medical models • Radio-realistic and biomechanically accurate capabilities • Slide-by-slice control to calibrate material properties to your exact specifications • Biocompatible, sterilizable models on a certified system
Certifications	The J5 MediJet and the Digital Anatomy Printer combined with the segmentation software are 510k cleared for diagnostic use.	
Software	GrabCAD Print™	GrabCAD Print Digital Anatomy Creator Axial3D Software

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