ACCUMODEL® 3D Anatomy

Patient-Specific Anatomical Models

- Tactile Surgical Planning Aide
- More Colors, Clearer Information
- Increased Confidence and Education

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INTRODUCTION

AccuModel® Patient-Specific Anatomical Models provide vivid, tactile 3D representations of patient anatomy. 3D models aide in plan visualization and help facilitate confidence-building educational opportunities for patients, originating from clinically relevant, patient-specific imaging data and surgical planning. AccuModel® highlights multiple internal and external structures of patient anatomy differentiated by a variety of colored materials, easily representing patient anatomy compared to the flatness of radiological data on two-dimensional screens. Study an AccuModel days before the surgery and consider your surgical plan. Quickly bring a team up to speed about a case using 3D models or educate a patient about their upcoming procedure with better tactile understanding.

POSSIBLE USES AND BENEFITS

Possible Uses
- Reconstructive Surgery
- Trauma (CMF, Orthopedic)
- Soft Tissue Visualization
- Craniofacial Reconstruction
- Cranio-Maxillofacial Distraction Osteogenesis
- Mandibular/Maxillofacial Reconstruction
- Spinal Fracture and Degenerative Disease
- Patient-Specific Complex Cardiac and Vascular Anatomy

Possible Benefits
- 3D understanding of the patient’s anatomy
- Tactile plan visualization
- Study prior to surgery and increased confidence for the surgeon
- Visual patient education of an upcoming procedure
- Planning for minimally invasive procedure
- Reduction of surgical time in the OR (and related time savings)
- Surgical accuracy
- Patient confidence going into procedure
- Medico-legal support
- UV-stable colors (won’t change colors)
- Quickly bring a team up to speed
## ACCUMODEL® ADVANTAGES

<table>
<thead>
<tr>
<th>Advantage</th>
<th>Description</th>
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<tbody>
<tr>
<td><strong>Tactile Surgical Planning Aide</strong></td>
<td>3D models turn 2D CT scan data into a physically tangible representation of patient anatomy. Anatomical models are useful for reference in surgical planning and can act as fit models for guides and plating.</td>
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<td><strong>More Colors, Clearer Information</strong></td>
<td>Multi-color materials allow for 80+ color variations highlighting patient-specific anatomical regions of interest. The models are fully UV cured, maintaining high definition shape and consistent color over time. More color options mean more opportunities to communicate visual information.</td>
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<td><strong>Increased Confidence and Education</strong></td>
<td>3D visualization of an individual’s specific anatomy can contribute to increased patient education, understanding, and confidence in their upcoming procedure. Less risk, better outcome, and more informed surgical teams translate into saved OR time.</td>
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## DESIGN SAMPLES

- **Maxilla and Mandible with Trauma**
- **Conjoined Twins**
MORE COLORS, CLEARER INFORMATION

AccuModel® Source
Patient CT, CBCT, MRI Scan Data

Region of Interest
Indicate anatomy within scan data to model

Differentiate by Color
- Plating
- Demarcation lines
- Osteotomies
- Bone grafts
- Teeth
- Nerves
- Pathologies
- Measurements
- Patient ID
- Vasculature

Product Options
- **AccuModel® Multi-Color**
  (i.e. clear bone, white teeth, magenta nerves)
- **AccuModel® Standard (2)**
  (i.e. clear bone, white teeth, white nerves)
- **AccuModel® Single Color**
  (i.e. all opaque off-white)

AccuModel® Materials
- OsteoWhite™
- OsteoClear™
- MagentaSolid
- MagentaClear
- MagentaLight
- 80+ Combinations

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WORKFLOW

1. Submit CT and Case Input
   Input Required to Proceed
   Upload CT via MedCAD.net, or FedEx all parts to MedCAD
   (including CT, CBCT, MRI, Order Forms, etc.)

2. Preliminary Design
   1 Day
   From Case Input, a MedCAD biomedical engineer drafts a
   preliminary design of splints by using the occlusion of stone
   models and CT data.

3. Report
   1 Day
   MedCAD biomedical engineer creates design report for
   Surgeon to approve prior to manufacturing.

4. Approval
   Input Required to Proceed
   Surgeon reviews report sent by MedCAD and communicates
   any further adjustments. Once it is approved via email
   response from the surgeon, MedCAD can manufacture the
   required parts. It is important for the Surgeon to provide
   feedback in a timely manner.

5. Manufacturing and Shipping
   3-5 Days
   Once report is approved, MedCAD manufactures and ships
   the plan and respective parts. Shipment of product can occur
   within 3-5 days of report approval.

EXPEDITED SERVICE AVAILABLE
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