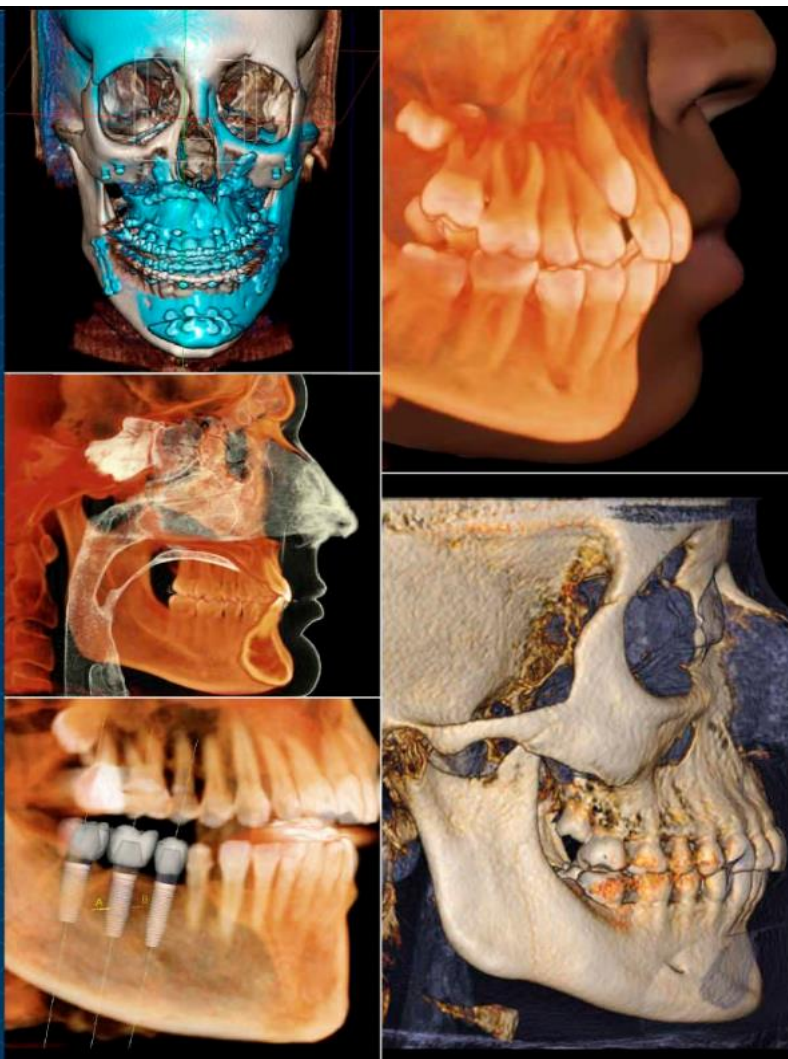


i-CAT



## Comprehensive Tx Tools Clinical Control Fast Workflow

i-CAT<sup>®</sup> puts the **power** of precision in your hands, simply and conveniently. Dental clinicians now have direct access to advanced 3D treatment tools for implants and restorations, oral and maxillofacial surgery, TMJ and sinuses, and orthodontics.

i-CAT produces **high definition** 3D diagnostic images for ultimate treatment efficiency. Its push-button ease delivers maximum **control** to accurately capture each patient's unique anatomy and treatment progress.

From diagnosis, through planning and treatment, to successful case completion, i-CAT's **flexibility** allows you to select specifically desired scans to manage radiation dose control for the greatest benefit to your plan and to your patient.

# Scan Plan Treat



## Why i-CAT®



### Powerful Treatment Tools

Plan and treat accurately and efficiently with i-CAT®'s exclusive software tools for orthodontics, oral & maxillofacial surgery, implants and restorations.

### Clinically Flexible 3D Imaging

Capture 3D views from single arch to full skull, and a broad array of desired fields in the range between. Dynamic clinical control allows you to acquire high definition 3D scans while minimizing dose to the patient.

### Practical Integration & Rapid Workflow

Optimize workflow efficiency with remarkably rapid scan and reconstruction rates. Capture all diagnostic images in one fast scan for ultimate time management. i-CAT's small footprint allows it to fit easily into any practice.

Consistently impressive image quality is delivered through **proprietary tools** that create high definition, low dose scans quickly and easily every time.

**Quantum iQ™** patented image processing technology provides smooth views of soft tissue and **crisp visualization** of hard tissue and bone structures for maximum detail and contrast.

**Quick Scan** speeds scanning time to just 4.8 seconds, producing high volume images quickly with **lower dose** to the patient.

**Tru-Pan™** is the industry's only, **patented one-click volumetric pan** that instantly yields precise and true panoramic views from 3D scans with optimal speed and accuracy.

**i-PAN™** makes i-CAT a two-in-one system with a unique **patented** function that captures **traditional 2D panoramic** images without having to invest in two separate sensors.

**i-Collimator** fully restricts radiation at the x-ray source to scan only the pre-selected areas of interest and **control dose** to anatomy outside the field of view.

**Ergonomic Stability System (ESS)** is designed specifically to **maximize patient stability** and accuracy of the scanning process with adjustable seating controls, robust head stability and seated system design.





## Industry Leading Technology

Since 1992, Imaging Sciences has been a forerunner in advanced dental imaging, specifically with cone beam technology, with its introduction of i-CAT® in 2004. i-CAT and its treatment planning software continue to revolutionize the landscape of 3D dental and maxillofacial radiography with **ultimate efficiency and flexibility** for maximum clinical control.

### Award-Winning Performance

Praised by owners, esteemed educational organizations and the dental community at large, i-CAT technology is widely regarded as the cone beam industry standard.

Voted **Best Cone Beam CT Scanner** four years in a row.



# Leadership

## The System for Universities

i-CAT is the 3D system selected and installed in more than half of the leading dental schools and universities in the United States.



The 3D Imaging Institute is the only entity of its kind dedicated to **ongoing education** of dentists and specialists to enhance planning and treatment through the latest in cone beam technology.

Our network of educators includes highly regarded leaders in specialty fields who have **extensive i-CAT experience**. This industry-leading educational program is the first to collaborate with Board Certified Oral and Maxillofacial Radiologists to design and deliver a curriculum on cone beam imaging by dentists for dentists.

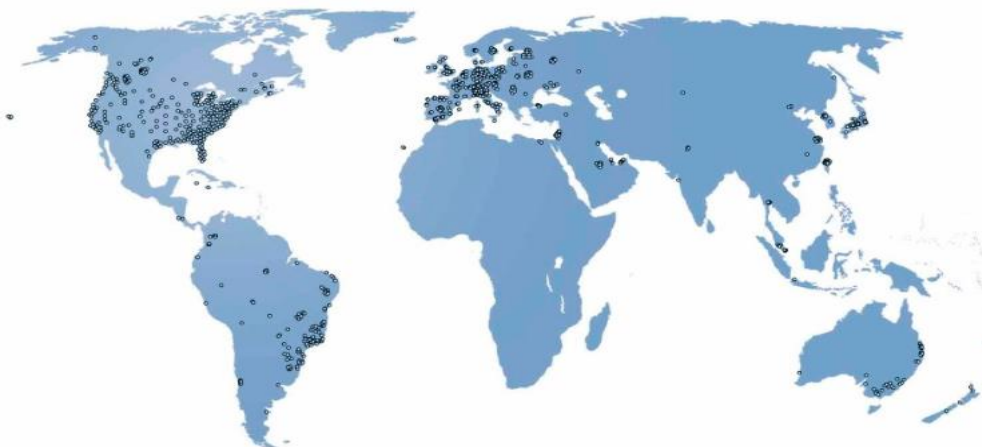
Commitment to continuing education for customers is reflected in the extensive programs offered **pre- and post-installation**, including online tutorials, webinars, regional classes, custom on-site training, annual Users' Meeting and International Congress on 3D Dental Imaging.

Learn more about exclusive training sessions and educators at [i-CAT3D.com](http://i-CAT3D.com).



# Community

## i-CAT® Technology – A Global Community



## The i-CAT® Network

From the innovators of cone beam technology, the i-CAT Network provides highly specialized service and support with the strength of a **dedicated 3D focus**.

As a member of the i-CAT Network you will have exclusive access to impressive educational programs, the vast knowledge of a global community of clinicians, and a world of support with our far-reaching, geographically convenient and **immediate technical response** team.

- 24/7 telephone support
- Remote assistance for every i-CAT
- Responsive Field Service team across the U.S. and Canada, including HI and AK
- Field Support Product Specialists available whenever needed



## Flexible Power Greater Vision

### Clinically Driven Image and Exposure Control

Preset fields of view simplify the imaging process to more efficiently focus on each patient's anatomical features. Determine scan settings based on patients' **unique case needs**. Target specifically desired views including maxilla or mandible implant areas, both arches with temporomandibular joints, cephalometric views, and full skull.

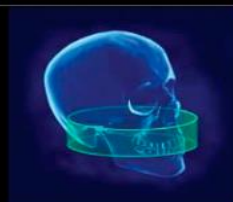
Choose to **customize** the scan so patients' anatomy is not exposed outside the selected field of view.

Capture information **critical to treatment** through a clinically responsible approach that controls radiation exposure to the patient.

Utilize **i-PAN™** traditional 2D panoramic imaging when 3D information is not required. i-CAT's two-in-one functionality is a convenient benefit for dental offices that desire **both 2D and 3D imaging**.



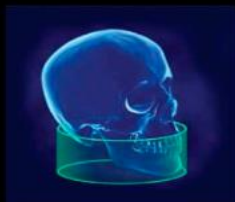
FOV 8 cm x 8 cm



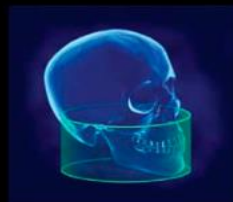
FOV 16 cm x 4 cm



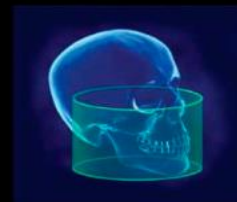
FOV 16 cm x 6 cm upper jaw TMJ



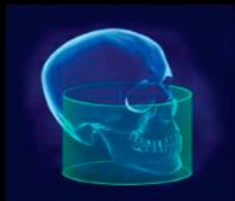
FOV 16 cm x 6 cm lower jaw



FOV 16 cm x 8 cm



FOV 16 cm x 10 cm



FOV 16 cm x 11 cm

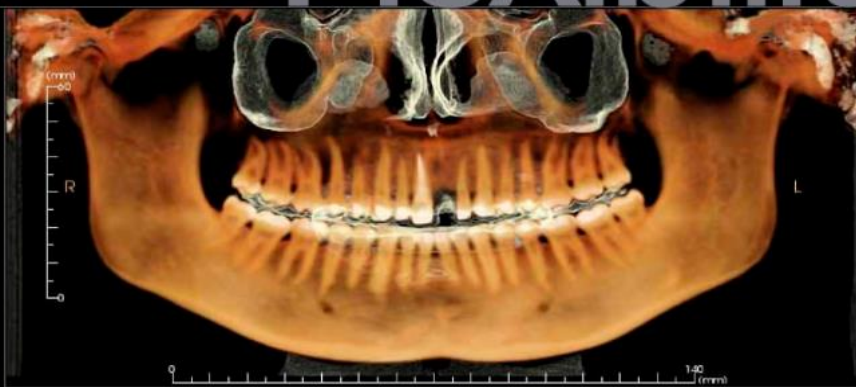


FOV 16 cm x 13 cm



FOV 23 cm x 17 cm

# Flexibility



3D Panoramic Volume



i-PAN™ 2D Panoramic



Low Dose Collimated Quick Scan



Low Dose Quick Scan



Full Field of View

In addition to fully customizable selections, quick pick presets provide convenient access to the most common scan selections for the individual needs of each practice.

### High Resolution Mandible Scan for Implants:

Increase resolution and focus to clearly visualize bone and nerve prior to implant placement.

**Both Arches Scan for OMS:** Customize the field of view to capture both arches, with or without TM joints and sinuses.

**Cephalometric Scan for Orthodontics, TMJ and Sinus Treatment:** Acquire a full orthodontic and cephalometric workup in just one scan for comprehensive ortho treatment.

### Low Dose Scan for Orthodontics:

Capture initial orthodontic workups and progress scans with lower dose in just 4.8 seconds.



# Implants

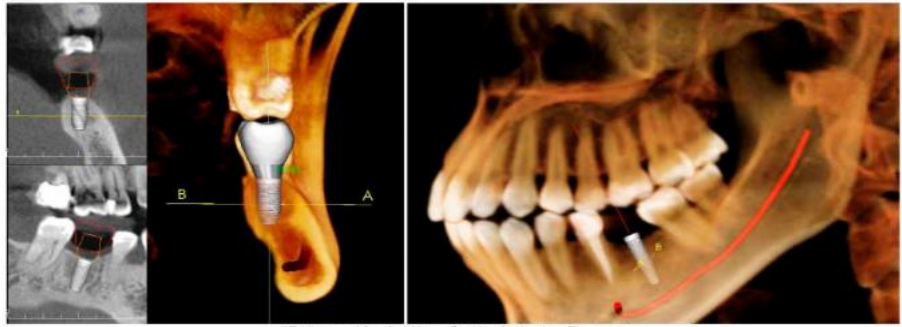
## Place & Restore with Accuracy & Confidence

From analysis, through planning and placement, to complete restoration, i-CAT® allows clinicians **surgical predictability** with treatment planning in full 3D with restorative outcomes in mind.

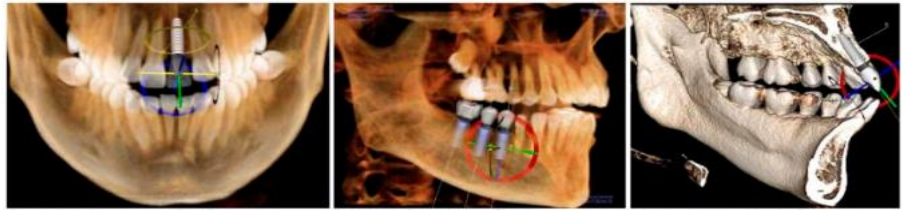
i-CAT's high resolution, volumetric images provide complete 3D views for more thorough **analysis of bone structure** and tooth orientation.

Collect **precise data and measurements** such as buccolingual dimensions, concavities and bone height. In the case of multiple implants, calculate perfect positioning.

Map an entire course of treatment from surgical placement of the implant and abutment, all the way to **final restoration**. An extensive library of implant templates affords best possible selection of suitable implant type, size, location, and angulations prior to surgery.



3D Views to Visualize Nerve Position for Implant Placement



Plan Implant, Abutment and Final Restoration in One Software

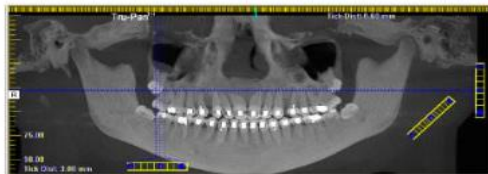
Restoration-Based Implant Planning

Visualize Implant within the Bone

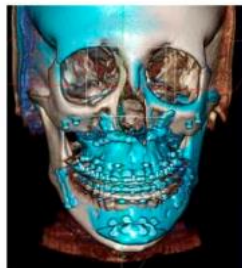
### Create Surgical Guides and Precise Outcomes

Combine the system's fast scan workflow and unique **open software architecture** to expand implant planning capabilities. i-CAT is universally compatible with all **leading surgical guide providers**, including SimPlant® and SurgiGuide, NobelGuide®, SICAT®, iDent®, and gives the convenient ability to order guides directly through the included i-CAT software from Anatomage®.

# Oral Surgery



Cross-Sectional Views Help Identify Impacted Tooth Position, Relation to Other Teeth and Roots, as well as Pathology Prior to 3<sup>rd</sup> Molar Extractions



Register Two Scans for Superimposition Visualization on Orthognathic Cases



Clearly View the Relationship Between Impacted Tooth Roots and Nerve Prior to Extraction



## Confidently Map Surgical Treatment Plans

Accurately measure bone and jaw deformities, assess bone density, lesions and changes of the jaw, and detect other pathologies, such as cysts, tumors, and disease to **avoid potential surgical complications**.

Determine **precise tooth position** to visualize impaction within the alveolar bone, location relative to adjacent teeth and proximity to vital structures, such as the nerve canal, sinus walls, and cortical borders.




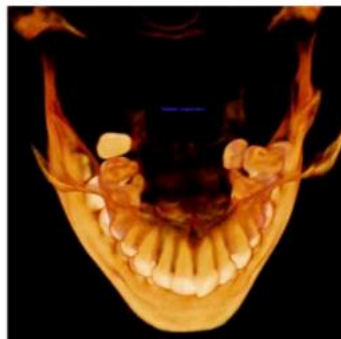
## Optimize Treatment Plans with Greater Accuracy & Better Clinical Tools

Capture **precisely accurate** 3D views to analyze teeth, roots, TMJ, airway, and sinuses without magnification or distortion. Enhance practice efficiency by capturing a complete workup in less than 10 seconds.

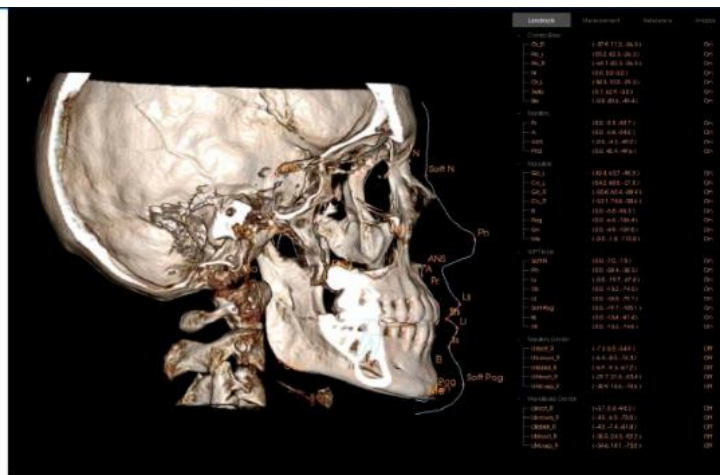
Correct root angulations and find supernumerary teeth and their exact locations to communicate clinically correct information to oral surgeons to **facilitate extraction** and prevent exploratory surgery.

**Maximum Clinical and Dose Control**  
i-CAT's adaptable settings allow you to select **customized fields of view** for broader or targeted areas of interest.

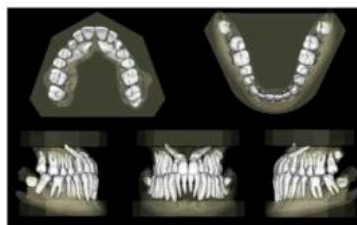
Use the **lower dose** 4.8 second scan in orthodontics to capture dramatically more information in detailed 3D images while managing radiation dose.



Identify Root Resorption in 3D that is Typically Undetected in 2D



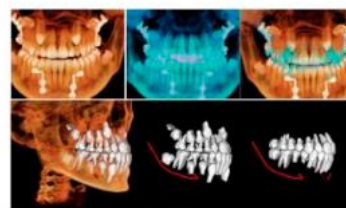
### 3D Cephalometric Analysis



### Digital Modeling



*Certification to Work with SureSmile®*



### Orthodontic Treatment Simulation

Take planning a step further with additional treatment modules.

With just one click, create **3D cephalometric analysis** that also yields full traditional 2D analysis.

Quickly and easily compile all the available images into a **virtual study model** service complete with crowns, roots, developing teeth, impactions and alveolar bone.

**Impressionless** models enhance accuracy while saving time, labor and space in the modern dental practice.

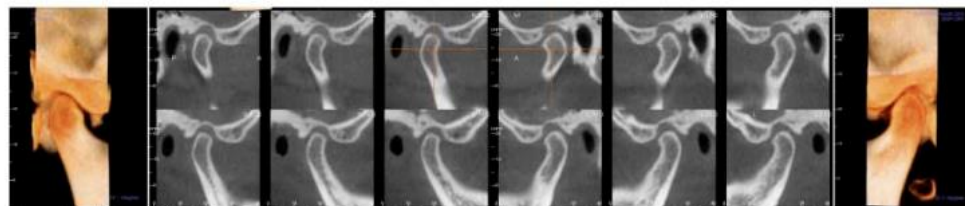
Replicate TAD placements virtually using the convenient anchor pin library.



## Detect TM Dysfunction

Zero in on the temporomandibular joints to detect TMD causes and identify **best treatment options**. The TMJ visualization tool serves as a virtual study model to streamline and expedite treatment success.

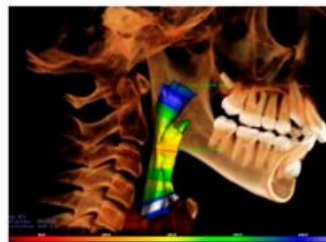
Design a treatment splint with the Medical Design Studio optional module.



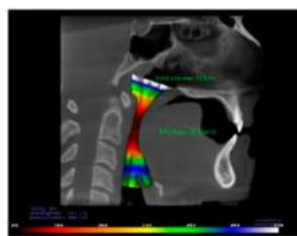
Corrected Angle Views of Temporomandibular Joints

## Reveal Restricted Airways

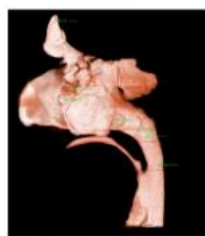
3D data enhances airway assessment to reveal restricted airways and determine appropriate treatments with precise anatomical views and measurements. Color-coded constriction values **highlight airway volume** for convenient reference at a glance.



Airway Analysis



Sleep Studies



Sinus Evaluation

## Expose Sinus Abnormalities

Quickly trace airways onscreen to **perform automatic calculations** and measurements of paranasal sinuses to evaluate treatment options.

# TMJ & Airway

# Features & Specifications

### Functionality

Easy-to-operate push button controls and computer workstation operation

### Dose Control

i-Collimator electronically adjusts the field of view to limit radiation only to the area of scanning interest

### Included Viewing Software

Standardized DICOM 3 compatible output for sharing with third party applications  
Practice management compatible (see website for up-to-date list)  
PACS interface through DICOM standard Reporting features

### Included Treatment Software

Implant planning, airway volume analysis, superimposition tool, nerve canal marking, restoration and abutment planning, temporary anchorage device planning

### Imaging

Amorphous Silicon Flat Panel Sensor with CsI scintillator for optimal signal to noise ratio and clearer images

Included Quantum iQ advanced soft tissue filter for noise reduction of images and improved low contrast detectability

Optional Extended Field of View for capturing full cranial height images

Optional i-PAN for traditional 2D panoramic images

Optional Tru-Pan for fully automatic and optimized panoramic reconstructions of 3D volumes

### Design

ESS (Ergonomic Stability System) with seated chair and head support that reduces patient movement and improves image quality

Small in-office footprint

### Support

Dedicated 3D technical support team, and customer service

24/7 phone support

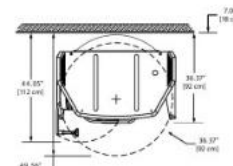
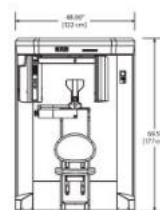
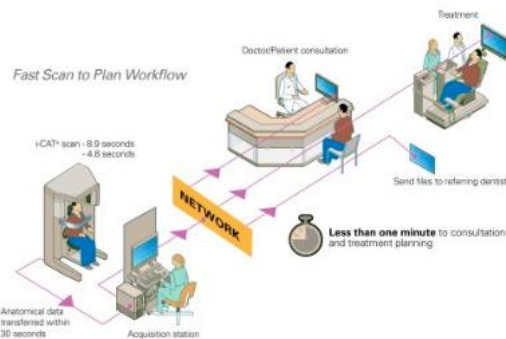
Field Support Product Specialists and in-office support

### Training

1.5 day in-office training is included with every purchase of a new i-CAT 3D system

Continuing education through the 3D Imaging Institute

SPECIFICATIONS	
Sensor Type	Amorphous Silicon Flat Panel Sensor with CsI scintillator
Grayscale Resolution	14 Bit
Voxel Sizes	4 mm, 3 mm, 25 mm, 2 mm, 125 mm
Collimation	Electronically controlled fully adjustable collimation
Scan Time	5, 8.9 or 26.9 seconds
Exposure Type	Pulsed
Field of View	Standard Scan: 4, 6, 8, 10, 13cm (h) x 16cm (d), 8cm (h) x 8cm (d) Custom Mode: any height from 2-13cm (h) x 16cm (d) Extended Field of View (Cephalometric): 17cm (h) x 23cm (d)
Reconstruction Shape	Cylinder
Typical Reconstruction Time	Less than 30 seconds
Typical File Size	Less than 50 MB
Viewing and Treatment Software	Included
Unit Size	48" (w) x 69.5" (h) x 36.37" (d)
Patient Position	Seated



To learn more about the i-CAT® 3D Dental Imaging System contact your Henry Schein representative or call Imaging Sciences at (800) 205-3570.



Get the free mobile app for your phone  
<http://gettag.mobi>