



How CBCT Can Transform General Dentistry Practices

An e-book detailing the role 3D imaging plays in overall patient treatment and care





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Introduction

Solutions for delivering better dental care are constantly evolving — from diagnostic techniques to treatment protocols and improved materials. That's particularly the case when it comes to imaging techniques.

For decades, general dentistry has relied on 2D imaging for screening exams and for the diagnosis of the cause of tooth pain and other problems. Unfortunately, 2D systems can't detect every pathology, meaning that brewing problems might go undetected for years.

Although there are more accurate diagnostic tools such as 3D Cone Beam Computed Tomography, its adoption in general dental offices is limited because of historically higher levels of radiation. But all that has changed.

For example, Dr. Mary Beilman, a Covington, Louisiana-based dentist noted that before she adopted 3D imaging technology, she wasn't able to easily determine whether a cracked tooth needed to be extracted, or if it could be saved.

Thanks to the advent of sophisticated technology in Planmeca's 3D imaging systems, practitioners such as Dr. Beilman now have an exciting new option to deliver excellent patient care by acquiring CBCT images with Planmeca's Ultra Low Dose™ technology.



3D Imaging: Not Just for Implants Anymore

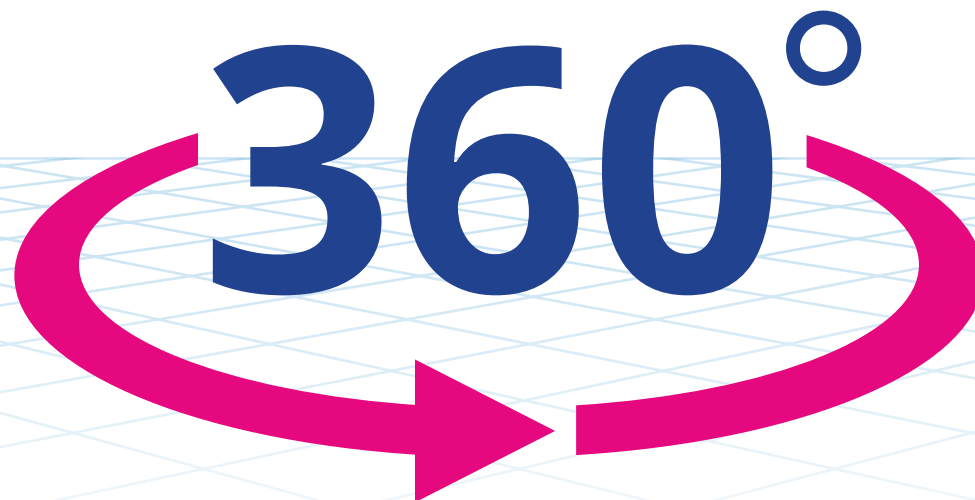


***Did You Know?** Any 2D image can be rendered from a single Planmeca CBCT image without distortion and often with less radiation using Planmeca Ultra Low Dose technology. Additionally, these images are more comfortable for the patient, especially those with a high gag reflex or large tori.*

CBCT gained its first adherents among endodontists, oral and maxillofacial surgeons and specialists placing implants. Today general dental practitioners have begun to see its value in improving practice efficiency and enhancing patient care.

Depending on volume size, CBCT systems offer the ability to view the patient's maxillofacial region, displaying full dentition, the airway and sinuses. And, as technology has advanced, manufacturers like Planmeca have reduced the radiation to levels equal to or less than 2D imaging — a breakthrough that has allowed dentists to more freely prescribe CBCT scans for general dentistry.

The result: **Dentists can make a more accurate diagnosis, easily spotting dental and related oral health problems before they become serious.**



In 2020, at the height of the COVID-19 pandemic, Dr. Beilman purchased the Planmeca ProMax® 3D Plus, following an office renovation. The unit produces a 360-degree view of all the dentition, the maxilla and mandible, the airway and the sinus floor. It has uncovered incidental findings in up to 50% of scans. Planmeca ProMax 3D Plus supports not only 3D imaging, but also panoramic and cephalometric imaging — always at optimal image quality. It can be upgraded to the Planmeca ProMax® 3D Mid at any time if the doctor requires a volume size of 20x17, which is the minimum volume recommended for orthodontics.

“Wow, what a great machine, with fantastic support,” Dr. Beilman says. “I can get a beautiful view of the dentition just like in a pano and have the ability to look at sinuses, which is a whole new world to me.”

It offers superior accuracy compared to conventional 2D imaging, a boon to dentist and patient alike. “I picked up a jaw fracture a patient never knew they had. I picked up another fracture in a patient who had been seen by an oral surgeon who missed it.”

A Dentist's Journey

Dr. Beilman opened her general dentistry practice in 1982, after graduating from Louisiana State University School of Dentistry in 1980 and then completing a 2-year, post-graduate residency program that included training in IV sedation. "I removed impacted third molars, often at friends' offices, and I rarely referred endo out," she says. "I did apicoectomies, periodontal grafts, removed some tori and absolutely loved oral surgery."

As Dr. Beilman's practice grew, she developed a loyal customer base and hired two hygienists. She soon realized her first love was prosthodontics and began referring out all her endo work to her favorite endodontists. "I decided to focus on my restorative skills and trust my oral surgeons to place implants. After I saw the amazing change in implant planning when one of my oral surgeons purchased a cone beam, I told the others that I would not refer unless they got the technology. I know I was responsible for at least one purchase because of that warning."



Dental team reviews 3D images



Dr. Mary Beilman, D.D.S., is a dentistry practitioner in Covington, Louisiana. Dr. Beilman graduated from LSU School of Dentistry in 1980. She is a member of the American Dental Association, Louisiana Dental Association, Northlake Dental Association, Academy of General Dentistry and Doctors for Oral Conscious Sedation. Dr. Beilman has been recognized as a New Orleans Top Dentists Award by New Orleans Magazine for 10 consecutive years.

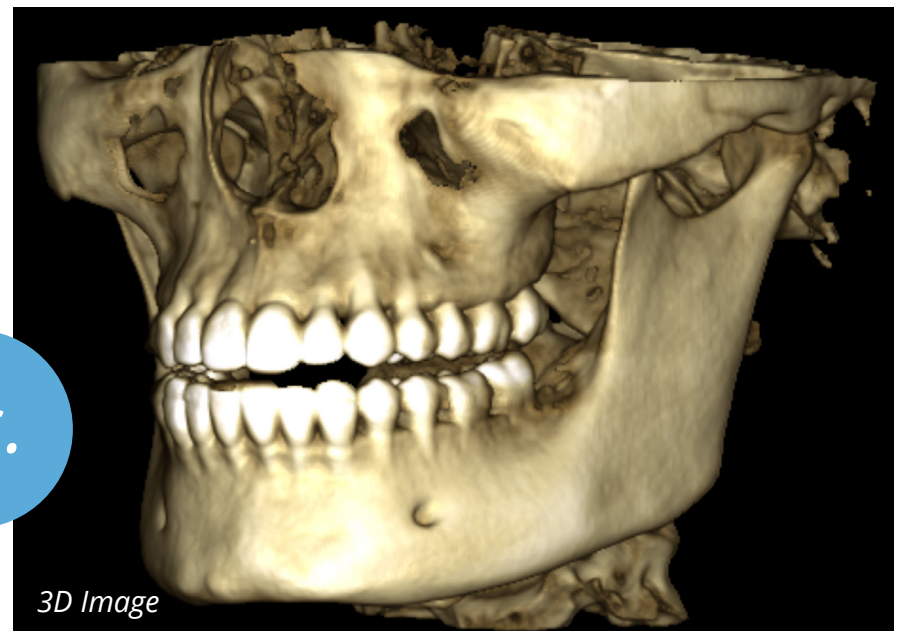
You Don't Know What You Don't Know

Dr. Beilman got her first exposure to 3D dentistry through her mentor, an oral surgeon who has written four books on implants and used many of Dr. Beilman's patients as case studies. As she observed him at work, she was amazed at the advantages of CBCT. Immediately, she could see the value of being able to see nerve structures, the anatomy and the sinuses.

"I didn't know what I didn't know," says Dr. Beilman. "I had experienced every failure that was bound to happen without being able to visualize nerves or the sinus in the floor of the nose."



VS.



Prior to her purchase of CBCT, she often felt helpless when she couldn't identify the source of her patients' discomfort. "I had to explain that I lacked the technology to diagnose the problem. I would refer to my endodontist for a scan to determine whether root canal therapy or extraction was needed."

Moving from 2D to 3D imaging was life changing for Dr. Beilman, proving an interactive experience, as opposed to a flat image. "It's like finding out the world isn't flat, it's round," she says.

Why Planmeca ProMax 3D Plus?

Dr. Beilman was attending an orthodontics meeting in 2019 when she first met the team from Planmeca. She discussed possibly adding CBCT to her practice but wasn't ready at the time.

Over the following months, a Henry Schein dental consultant gave her the support and encouragement she needed to eventually make her decision. In June 2020, her contact said the Planmeca ProMax 3D Plus was at a very attractive price. She decided to take the leap and purchase the system, citing two critical factors that influenced her the most: the ultra low dose imaging and the extraoral bitewings.

Planmeca Ultra Low Dose

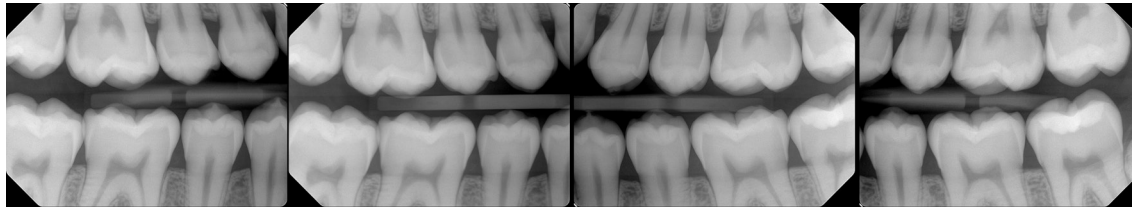
The Planmeca ProMax 3D Plus allows her to provide her patients with the highest quality service, to educate patients more fully about their options and to direct them appropriately for further action. Now, her practice screens all her patients with 3D imaging.



Dr. Mary Beilman and the Planmeca ProMax 3D Plus

Because of the low dose of radiation, Dr. Beilman doesn't hesitate to take a CBCT image to diagnose an issue. "I can tell the patient, 'This is a fraction of what we used to do routinely.'"

Normally, her practice would screen both new patients and noncompliant patients with 2D Full Mouth X-rays/Pano. When she suggested using the cone beam in Planmeca Ultra Low Dose mode instead of a pano, and the extraoral bitewings instead of an FMX, her hygienist asked, 'Does that mean I never need to take an FMX again?' "I hadn't thought about that, but yes, that is true," she says.



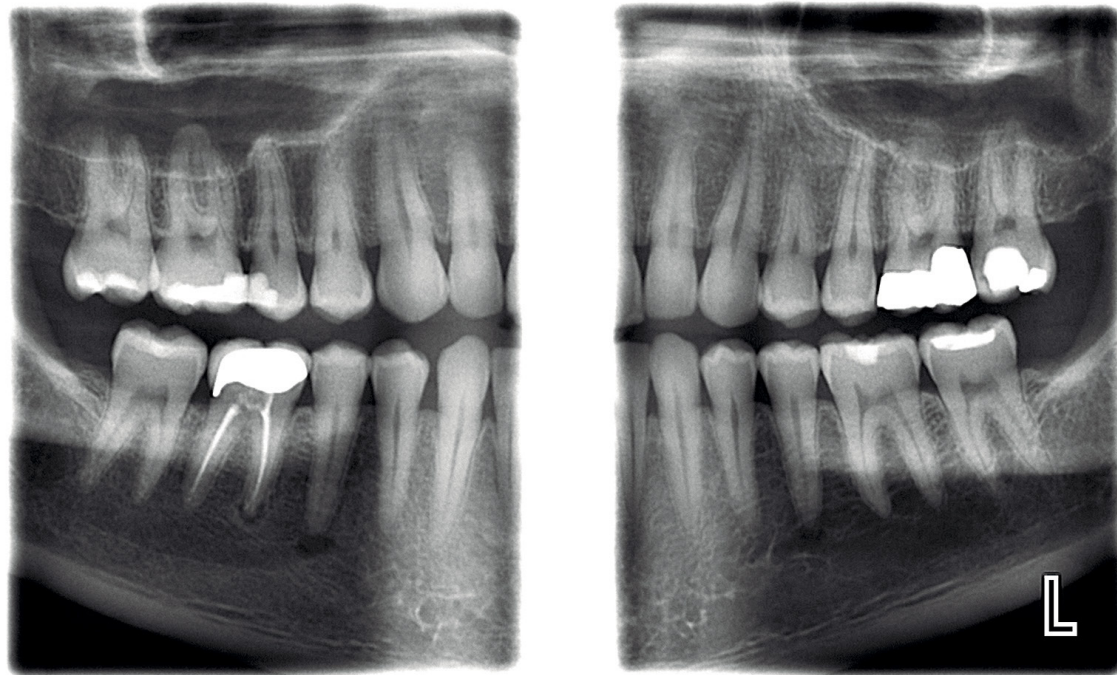
Intraoral Bitewing

Planmeca Extraoral Bitewings

As Dr. Beilman gets more accustomed to the capabilities of her new system, she “continues to be amazed,” she says.

“I looked at an average set of intraoral bitewings that we took a year ago, and I look at the new Planmeca bitewings, and I’m flabbergasted to see all that is missing in the intraoral 2D imagery.”

With Planmeca’s bitewing program, she can see 24% more of the tooth, allowing her to detect other conditions not visible on an intraoral bitewing. In addition, these bitewings have less radiation and are just as reliable at detecting caries.



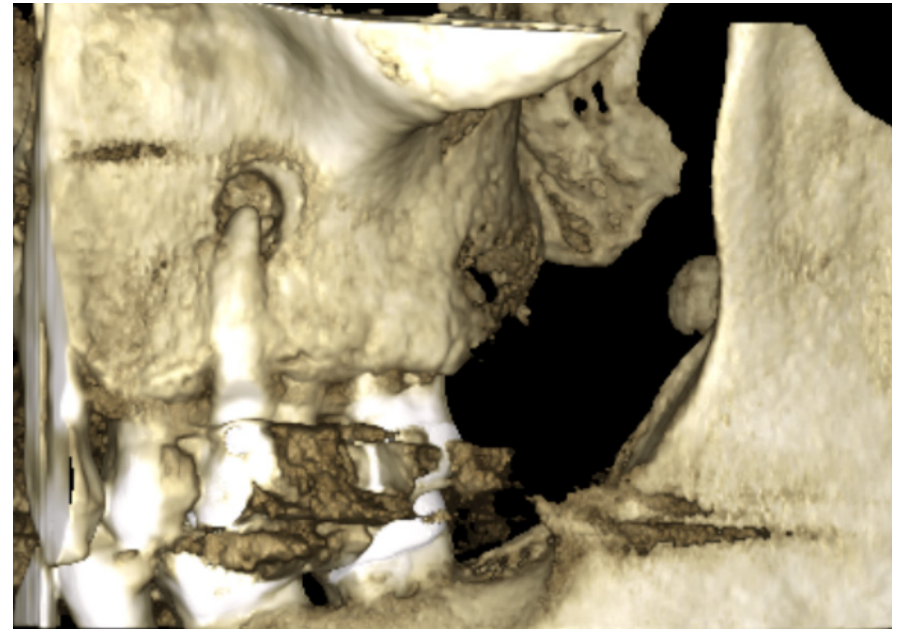
Planmeca Bitewing

A Reluctant Patient

Traditional 2D X-rays often don't convince a patient they need to take their condition seriously. For example, one of Dr. Beilman's reluctant patients had waited three years for a cleaning and oral exam before coming into the office. At the time, he complained of tooth pain, localizing to the vestibule. She took 2D images of his teeth and warned him that the old root canal could present a problem. But he wasn't convinced of the urgency of the situation and decided to ride it out.

Two weeks later, he came back, concerned about whether his tooth might act up on an upcoming airplane flight. She prescribed antibiotics and referred him to an endodontist, but he never did make an appointment. After his trip, he showed up in her office once again, with continued pain, pressure and tooth sensitivity.

This time, Dr. Beilman had her new Planmeca ProMax 3D Plus installed, and she was able to take a 3D scan. It showed a shocking finding: bacteria from the infected tooth was eating away at the bone in his skull.



Case Study: Patient with bacteria impacting bone

“The bottom line is that when I showed this to the patient and he understood that he had a hole in his skull from this infected tooth, he was very eager to see the endodontist for the root canal treatment.”



Dr. Mary Beilman interprets 3D images

The Planmeca ProMax 3D Plus

has transformed the experience of both her hygienists and Dr. Beilman's patients, particularly those who can't stand anything in their mouths. With the 3D system, "most radiograph surveys are extraoral, which patients love," she says. "The process takes less time, which the staff loves. And the radiation to the patient is diminished, even though I get much more detailed information."

That also means improved productivity, which allows Dr. Beilman to provide excellent care for her existing patients, as well as time left over for other tasks.

"My goal is to keep my patients. This is the way I practice. My goal is to have really good patient retention," she says.

Unique Features and Benefits

With many CBCT units in the market, Dr. Beilman chose Planmeca ProMax 3D Plus for its distinct features and unique benefits.

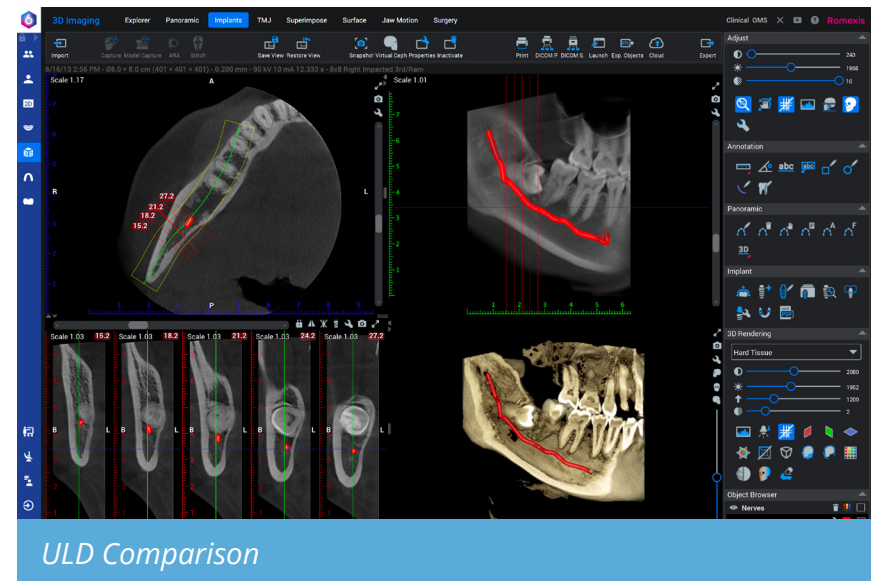
- **Planmeca CALM™** technology corrects patient movement, a problem in 21-43% of CBCT images
- **AINO** (Adaptive Image Noise Optimizer) and **ARA** (Artifact Removal Algorithm) minimize noise and distortion from artifacts without losing valuable details
- **SmartPan™** all-in-one imaging provides 2D and 3D imaging with a single sensor; no rotating or removing the sensor
- **Patented SCARA 3** (Selectively Compliant Articulated Robotic Arm) technology guarantees an anatomically accurate imaging geometry for clear, error-free images
- **Advanced 2D imaging programs** include pan, pediatric pan, orthogonal panoramic, TMJ and sinus programs
- **Segmentation** takes 2D PA images, quadrant or individual area images, reducing radiation dose
- **AutoFocus** technology generates a scout image of the anterior structure to virtually guarantee in-focus anteriors on every panoramic image
- **3 Planmeca Romexis® 3D software** offers licenses with robust features and open-architecture
- **5-year unit warranty** including sensor



Advice to the 2D Traditionalist

Many dentists are comfortable with their current 2D imaging system and can't imagine making a change. But advanced technology can make life easier and, in many cases, more fun. Take Dr. Beilman's decision to buy her first electric car, a Nissan Leaf, in 2012. How cool it was to never have to go for maintenance, except for tire rotation, and never have to go to the gas station again, she says. Then, in 2018, she graduated to a Tesla Model 3. "It felt like I had leaped ahead by a century.

"That is the feeling that I have about this CBCT. I've jumped ahead by a century, and I'm having fun at the same time. This is a diagnostic game changer."



Perhaps even more important, her Planmeca ProMax 3D Plus lets her practice dentistry more holistically. "Now I'm looking at my patients, I'm wondering not just about their teeth, but about their sinuses and their airway."

How can other dentists make the leap? Getting educated about the advantages and capabilities of the Planmeca ProMax 3D Plus made all the difference for Dr. Beilman.

When considering CBCT, dentists should think about the services they provide now and those they wish to provide in the future. This will help them determine the maximum value size for their needs.


Knowledge is Power Promotion

Planmeca Complimentary 2-day Training Course and 10 Free CBCT Radiology Reviews

To learn more about CBCT, dentists are invited to attend a 2-day course to ensure a smooth integration of CBCT imaging into their practices. The course, "CBCT Basics, Interpretation and Implant Workflow," is complimentary when a qualifying Planmeca CBCT unit is purchased through Henry Schein until December 31, 2021.

[Learn More](#)

See More. Do More.



PLANMECA 3D IMAGING PROMOTION
knowledge is power

Purchase a new Planmeca CBCT imaging system and you'll receive the education to confidently implement 3D into your practice!

New Planmeca CBCT Customer Offer

- 2-day **CBCT Basics, Interpretation and Implant Workflow** course or the 2-day **CBCT Basics, Interpretation and Treatment Planning for Orthodontists** course – a \$1,800 value free!
- **10 Radiology scan reviews** and comprehensive reports from Oral Radiology Consultants – a \$1,000 value free!
- Purchase a new **Planmeca Emerald™ S** scanner now or within 12 months and enjoy 2 years of our **Planmeca Protection Plan – Plus One Scan** for free – a \$3,000 value!
- Receive special pricing on eligible CBCT units!

Planmeca 2D Pan and 3D Customer Loyalty Offer

- 2-day **CBCT Basics, Interpretation and Implant Workflow** course or the 2-day **CBCT Basics, Interpretation and Treatment Planning for Orthodontists** course – a \$1,800 value free!
- Purchase a new **Planmeca Emerald™ S** scanner now or within 12 months and enjoy 2 years of our **Planmeca Protection Plan – Plus One Scan** for free – a \$3,000 value!
- Receive deep discounts on eligible CBCT units!

Enjoy Year End Savings Today!

Purchase a Planmeca CBCT system and the **education** is on us, but the **POWER** is in your hands.

Contact your local Planmeca or Henry Schein Dental Representative for details.
Planmeca (800) 718-4598 | Henry Schein Dental (844) 223-0043

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Terms and Conditions: Promotion includes all Planmeca CBCT units including the Planmeca ProMax™ 3D LEC and Planmeca ProMax™ 3Dx. Course registration fee and hotel accommodations included. Attendee must secure their own transportation. Orders must be received by December 31, 2021. Use promo code HSDCT. Consider and other registration for the course all your choice. Course must be completed before December 31, 2022. Radiology scans must be used by December 31, 2022. Void where prohibited or restricted by law. Availability and terms of offer may change without notice. Cannot be substituted for other promotion or cash equivalent.
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