# WHAT'S IN YOUR DRIVEWAY?



UNDERSTANDING
INVESTMENT
CRITERIA FOR
IMAGING
EQUIPMENT

**PLANMECA** 

If any car can take you from

Point A to B

what made you choose the one you're driving?

If you're a stay-at-home parent of young children, your answer will certainly be different than that of a recent college graduate — and for a good reason. You have vastly different needs. It stands to reason that identifying your needs is the first step towards making a sound investment decision. Once your needs are satisfied, purchasing decisions become more individualized as budgets and personal preferences are considered.









If the answer is 2D intraoral X-rays, then it is time to consider an upgrade. In our car analogy, you're likely driving an older vehicle with some serious limitations. It would be a car that couldn't exceed 30 mph, limiting you from using expressways and making your trip significantly longer. Clinical studies have shown 2D intraoral imaging is about 25% accurate in detecting periapical lesions while 3D imaging is 100% accurate¹. Right off the bat, using 3D imaging allows you to arrive at an accurate diagnosis almost immediately. You could make the argument that 75% of the time, you are putting your patients on a watch, waiting to see if pathology becomes more apparent.





This means the problem has to get bigger to see it, and by then, you've often lost the ability to intervene at an early stage of disease progression. This isn't great news for the patient. Since imaging equipment is supposed to help you diagnose pathology and provide better patient care, CBCT is a better "vehicle" to get you there.

Clinical studies have shown 2D intraoral imaging is about...

in detecting periapical lesions while **3D imaging** is...

25% Accurate 100% Accurate



Yes, CBCT technology is expensive, and units can range from \$60,000 and upwards to \$200,000. Deciding the best system to buy shouldn't begin with "what is the least expensive unit." If that were a valid criteria for making a large purchase, you likely would be driving a different car and living in another house.

Ask yourself, "Am I interested in doing implants? Dental sleep medicine? TMD?"

CBCT technology isn't a consumable item. It's a sophisticated piece of technology you'll use for many years to come. You need to consider what kind of dentistry you currently do and what you may potentially want to do five years down the line. These questions will help you identify the correct volume size required in an imaging unit. The larger the sensor, the more expensive the unit.

### **In the table below** you can find the minimum volume sizes recommended for different dental specialties.

	Endodontics	lmplant Dentistry	General Dentistry	Airway	Orthodontics, OMS
Minimum Volume Size	Ø 3 x 3 cm	Ø 8 x 5 cm	Ø 8 x 8 cm	Ø 11 x 8 cm	Ø 20 x 17+ cm













Let's use patient radiation dose as our fuel-equivalent analogy. You wouldn't want to take a 1984 Ford Bronco on a cross country road trip burning one gallon of gas every ten miles<sup>2</sup>. If an X-ray image results in a high patient radiation dose, you would use it very sparingly. This is the reason for industry guidelines that advise limiting the use of CBCT imaging.

DESIRED FEATURES

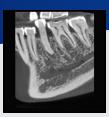
Historically, the effective patient dose of CBCT scans has been relatively high compared to 2D imaging. But what if you were able to capture diagnostically valuable CBCT images using the same or even less radiation than 2D radiography? If that were true, you could take a 3D image whenever you needed to diagnose a problem. That's what Planmeca Ultra Low Dose™ provides.

# What if you were able to capture diagnostically valuable, CBCT images using the same or even less radiation than 2D radiography?



With and without ULD





Low patient radiation in our purchase criteria scenario is a "need." Not only because it's better for the patient, but because you will be able to use it more frequently. You don't want an expensive piece of technology to sit idle. And, while many manufacturers tout low dose imaging options, ask to see sample images. Reducing radiation is easy; maintaining image quality is difficult and only one manufacturer is clinically proven to provide both, that's Planmeca.

Planmeca CALM<sup>™</sup> is an industry exclusive which eliminates movement in

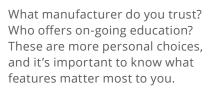
### 21-43% of CBCT scans<sup>4</sup>.



Depending on where you live, heated seats might be a nice-to-have, or perhaps you'd love a sunroof. What are some of the bells and whistles you should

consider in CBCT units?

Can the unit be easily integrated with your current technology? Is the software easy to use? Does one system offer something exclusive you can't find in another?







While it doesn't seem like a mission critical feature, if you have a patient with Parkinson's disease like Dr. Mike Moroni, Planmeca CALM™ is a game-changer. Dr. Moroni's patient needed implants, but acquiring a viable CBCT image would be near to impossible with his tremors.

"If I had taken a CBCT scan of this patient previously [prior to having Planmeca CALM], it would have been a blur," Moroni says, "but the Planmeca CALM software prevented his tremors from translating to the scan. It filtered out all of the movement to produce a readable, diagnostically acceptable image that I could use to plan the case. It is an amazing technology."



Once you've identified your needs versus wants, then it's time to consider ROI. Doctors who invest in CBCT imaging technology experience increased production by uncovering more dentistry. It's been thought of as taboo to talk about patient care in this manner, but it is about improved care and not about profits. You will uncover more dentistry, diagnose it earlier, more accurately, and often in a less invasive manner. The increase in revenue is a desirable by-product. It's that simple.

"I couldn't get a quality image using low dose levels. But when Planmeca came out with Planmeca Ultra Low Dose™, we didn't step down in quality; that was a game-changer for me."



"I see referred patients all the time to evaluate them for implant placement at one site, but when I look at the CBCT radiograph, I usually pick up things that have been missed," Dr. Tolbert says. "That is just because the referring doctors are limited to what their radiographs allow them to see. We can now diagnose things in patients that may have been missed before."

### Planmeca Ultra Low Dose™ achieves a

## 700 Average Reduction

in dose compared to standard imaging protocols, with no reported loss of diagnostic quality<sup>3</sup>.

CBCT technology is becoming the new standard of care and selecting the right system requires a closer look at what is truly important in a unit. Understanding the potential reach of a diagnostic tool such as 3D imaging is paramount to making a good decision.

Let 2021 be the year you take a test drive!



#### **PLANMECA**

(630) 529 2300 | www.planmeca.com

© Planmeca U.S.A. Inc. 2021 All Rights Reserved

1. According to a study published by the International Endodontic Journal, Detection of periapical bone defects in human jaws using cone-beam computed tomography and intraoral radiographydoi:10.1111/j.1365-2591.2008.01538.x | 2. According to Driving, Worst Gas Guzzlers of All Time, by Jacob Black, APRIL 23, 2019 | 3. According to "Dosimetry of Orthodontic Diagnostic FOVs Using Low Dose CBCT Protocol" by JB Ludlow and J Koivisto | 4. 21-43% according to a study published In July of 2017 by the Journal of International Society of Preventative & Community Dentistry