

# Accurate Diagnostics, Safer Imaging

---

Planmeca has an alternative imaging protocol that is **more accurate** and **safer than traditional methods** resulting in **better patient care**.



Arrive at the right diagnosis sooner, potentially saving more teeth



Improve treatment outcomes and increase confidence in treatment planning



Less patient radiation and improved overall patient care

# CBCT Technology From Planmeca: The Better Option

Planmeca offers innovation not found in other CBCT imaging systems. Two in particular are causing a paradigm shift in general dentistry.

1

**Our ability to take True Extraoral Bitewings that are:**

Half the radiation dose compared to a 4 bitewing series<sup>1</sup>

Clinically proven as accurate as intraoral bitewings in detecting carious lesions<sup>2, 6</sup>


2

**Planmeca's Ultra Low Dose™ (ULD) CBCT Imaging:**

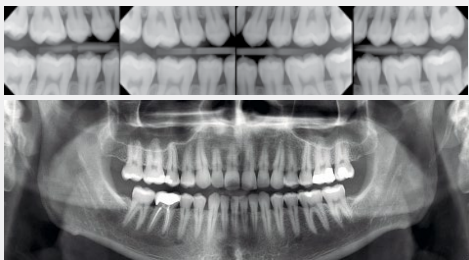
Reduces radiation up to 77% without statistical reduction in image quality<sup>3</sup>

Gives access to a 360 degree view of the teeth

---



Let's examine the imaging protocol in 2D and 3D, paying special attention to the amount of radiation — as measured in microsieverts ( $\mu\text{Sv}$ ) — produced at each step along the way and altogether.



## 2D Extraoral and Intraoral Imaging Protocol

2D pan **20  $\mu\text{Sv}$** , plus 4 intraoral bitewings **24  $\mu\text{Sv}$**

*Radiographs provide a two-dimensional image of a three-dimensional object. Relationship of the surrounding anatomical structures cannot be assessed accurately.*

## 2D Traditional Intraoral Imaging Protocol

18 FMX **171  $\mu\text{Sv}$**

*Produces flat view of teeth with limited view of apices leads to loss of spatial information and multiple overlapping areas.*

Pathology Discovered



Need more information. Take up to 2 intraoral periapical images (25% accurate<sup>4</sup>). **18  $\mu\text{Sv}$**



Diagnosis and treatment plan accordingly.



Results inconclusive.



Put area of interest on a watch.

No Pathology Discovered

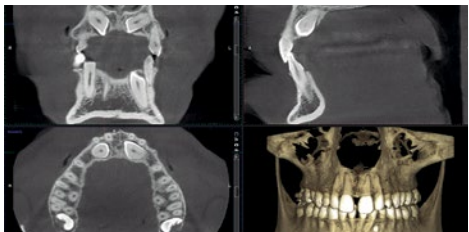


Diagnosis and treatment plan accordingly.



No pathology discovered, schedule for next routine exam.  
*No assurances asymptomatic pathology continues undetected.*

Total Radiation: **44 - 189  $\mu\text{Sv}$**



## Planmeca 3D Imaging Protocol

3D ULD  $\varnothing$ 11x8 cm image of both jaws **9  $\mu\text{Sv}$**

*Produces a 360-degree view of all the dentition, the maxilla and mandible, the airway, and sinus floor. Uncovers incidental findings in up to 50% of scans.<sup>5</sup>*

## Planmeca True Extraoral Bitewings

Extraoral bitewings **14  $\mu\text{Sv}$**

*Clinically proven to be as effective at opening interproximal contacts<sup>2</sup> and better at detecting carious lesions<sup>2</sup> and bone loss<sup>6</sup> compared to an intraoral bitewing series and provides view of apices of teeth on upper and lower.*

Pathology Discovered



Arrive at 100% accurate diagnosis and treatment plan accordingly. Higher probability to save teeth with early intervention.

No Pathology Discovered



Schedule for next routine examination confident that you performed a comprehensive examination of your patient's oral cavity.

Total Radiation: **23  $\mu\text{Sv}$**

# PATIENT PRESENTS WITH PAIN



Take up to 2 intraoral periapical images (25% accurate<sup>4</sup>) **9-18  $\mu$ Sv**.



Diagnosis and treatment plan accordingly.



Results inconclusive.



Put area of interest on a watch.

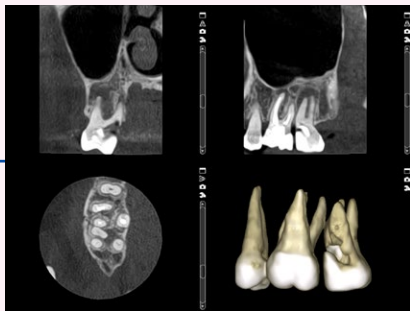
or



Refer to specialist & more radiation. **?  $\mu$ Sv**



Total Radiation: **9 - 18+  $\mu$ Sv**



Order a 3D PA  $\varnothing$ 4x5 cm, normal resolution ULD at **10  $\mu$ Sv**.



Arrive at 100% accurate diagnosis and treatment plan accordingly.



Total Radiation: **10  $\mu$ Sv**



Practices with Planmeca 3D imaging technology can improve the quality of care and safety of their patients. They can arrive at the right diagnosis earlier, practice more minimally invasive dentistry, saving patients time, money and teeth — everyone wins with 3D imaging from Planmeca!

---

To learn more about Planmeca technology and the solutions we bring to modern dental practices, visit [info.planmecausa.com/ultra-low-dose](http://info.planmecausa.com/ultra-low-dose)

**PLANMECA**

(630) 529 2300 | [www.planmeca.com](http://www.planmeca.com)

© Planmeca U.S.A. Inc. 2020 All Rights Reserved



---

#### SOURCES

1. Planmeca effective patient radiation doses D0011311-B, on file.
2. According to a study published by the University of Minnesota ([doi.org/10.1016/j.adaj.2017.08.032](https://doi.org/10.1016/j.adaj.2017.08.032))
3. According to "Dosimetry of Orthodontic Diagnostic FOVs Using Low Dose CBCT Protocol" by JB Ludlow and J Koivisto.
4. According to a study published by the International Endodontic Journal ([doi:10.1111/j.1365-2591.2008.01538.x](https://doi.org/10.1111/j.1365-2591.2008.01538.x))
5. Oral Surg Oral Med Oral Pathol Oral Radiol ([doi: 10.1016/j.oooo.2014.01.002](https://doi.org/10.1016/j.oooo.2014.01.002). Epub 2014 Jan 9)
6. According to a study published by the American Dental Association ([doi.org/10.1016/j.adaj.2017.08.032](https://doi.org/10.1016/j.adaj.2017.08.032))