



**Informed Consent for CBCT Imaging
Cone Beam Computed Tomography (3D X-Ray)**

PATIENT INFORMATION

Patient Name: _____

Date of Birth: _____

Chart #: _____

Treating Provider: _____

Date: _____

Referring Provider (if applicable): _____

WHAT IS A CBCT SCAN? (PLAIN LANGUAGE)

A Cone Beam Computed Tomography (CBCT) scan — sometimes called a cone beam or 3D X-ray — is a specialized imaging machine that rotates around your head and creates a three-dimensional picture of your teeth, jaw, sinuses, and surrounding bone. It provides significantly more detail than a standard dental X-ray for certain clinical situations.

Unlike a traditional medical CT scanner, a CBCT is designed specifically for the head and face region and uses a lower radiation dose than a medical CT. However, the radiation dose is higher than that of conventional dental X-rays, so it is ordered only when the clinical benefit outweighs the risk.

WHY IS THIS SCAN BEING RECOMMENDED?

Check all that apply:

- ☐ Implant planning — evaluating bone volume, density, and proximity to nerves
- ☐ Impacted tooth assessment (e.g., wisdom teeth, canines)
- ☐ Endodontic (root canal) evaluation — complex anatomy or failed treatment
- ☐ Jaw joint (TMJ) evaluation
- ☐ Airway or sleep apnea assessment
- ☐ Pathology detection — cysts, tumors, or abnormal bone lesions
- ☐ Orthodontic treatment planning
- ☐ Trauma evaluation
- ☐ Other: _____

RADIATION EXPOSURE — WHAT YOU SHOULD KNOW

All X-rays involve a small amount of ionizing radiation. Radiation dose is measured in microsieverts (μSv). For reference:

- Background radiation you receive naturally every day: $\sim 8 \mu\text{Sv}/\text{day}$
- Standard dental bitewing X-rays (4 images): $\sim 5 \mu\text{Sv}$
- Full-mouth series (18 images): $\sim 35\text{--}85 \mu\text{Sv}$
- CBCT (limited field of view): $\sim 40\text{--}200 \mu\text{Sv}$ depending on field size and protocol
- CBCT (large field of view): $\sim 68\text{--}560 \mu\text{Sv}$ depending on protocol
- Medical chest CT scan (for comparison): $\sim 7,000 \mu\text{Sv}$

Your provider has selected the smallest field of view and lowest dose protocol appropriate for your clinical needs. The ALARA principle (As Low As Reasonably Achievable) is followed.

SPECIAL CONSIDERATIONS — PLEASE REVIEW

Pregnancy: Radiation exposure should be avoided during pregnancy whenever possible. Inform your provider immediately if you are pregnant or think you may be pregnant. Elective CBCT imaging will be postponed until after delivery.

☐ I confirm I am NOT pregnant (or this does not apply to me)

☐ I am pregnant — I have discussed the risks and benefits with my provider and consent to proceed based on clinical necessity

Children and Adolescents: Growing patients are more sensitive to radiation. CBCT will only be ordered when standard 2D imaging cannot provide adequate diagnostic information.

POTENTIAL BENEFITS

- 3D visualization of bone, nerves, teeth, and soft tissue in a single scan
- More accurate implant, surgical, and orthodontic planning
- May reduce the need for exploratory surgery
- Detects pathology not visible on standard X-rays
- Completed in the office in approximately 10–40 seconds of scan time

RISKS AND LIMITATIONS

- Ionizing radiation exposure — cumulative exposure over a lifetime carries a small increased risk of radiation-induced changes; this risk is considered very low for diagnostic dental imaging
- CBCT provides detailed hard-tissue images but has limited ability to assess soft tissue compared to MRI

- Incidental findings: The scan may reveal unexpected findings (e.g., sinus pathology, calcifications) unrelated to your dental treatment; these will be communicated to you and may require follow-up
- Metal artifacts from existing crowns, implants, or restorations may reduce image clarity in certain areas
- The scan is a diagnostic tool — it does not replace a clinical examination

INCIDENTAL FINDINGS ACKNOWLEDGMENT

I understand that a CBCT scan may reveal findings beyond the area of primary interest. My provider will review the full scan volume and communicate any significant incidental findings. I understand that additional evaluation or referral may be recommended as a result.

☐ I acknowledge and accept this

ALTERNATIVES

- Standard 2D dental X-rays (periapical, panoramic, bitewing) — lower radiation, less 3D detail
- MRI — no ionizing radiation; better soft-tissue detail; not always available in a dental setting and longer scan time
- Delaying imaging — may be appropriate in some cases; discuss with your provider
- Declining imaging — you have the right to decline; however, this may limit diagnostic accuracy and treatment planning

⚠ STATE LAW NOTE: [STATE] dental board or radiation safety regulations may require specific disclosures, operator certification, or equipment registration for CBCT use. Insert applicable [STATE] radiation safety law citations and any required consent language here.

PATIENT ACKNOWLEDGMENT

I have read or had read to me the information above. I understand the nature of CBCT imaging, the radiation dose involved, and the potential for incidental findings. I have had the opportunity to ask questions, and they have been answered to my satisfaction. I voluntarily consent to CBCT imaging as recommended by my provider.

SIGNATURES & ACKNOWLEDGMENT

Patient Signature

Date

Parent / Guardian (if patient is a minor)

Relationship

Witness / Staff Signature

Date

Provider / Dentist Signature

Date

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