

Medial Arterial Calcification (MAC) – A Diagnostic Marker of Type II Diabetes on CBCT Images

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In 2017, the Centers for Disease Control (CDC) reported that there were more than 100 million U.S. adults living with diabetes or prediabetes. One source claims that 88 million people in the US have pre-diabetes¹ and 84% of them do not know it. ***Dentists have many patients with both diagnosed and undiagnosed type II diabetes mellitus in their practices.***

In addition to carotid plaques seen on panoramic radiographs, you can detect more serious calcifications called **MAC** (medial arterial calcifications) on CBCT images; that is, if you know where to look, what you're looking for and what image processing tools to apply.

Early detection of disease helps the patient's primary care physician diagnosis and could, in some cases, save the patient's life. Early detection will also enhance the quality of the diabetic patient's life and possibly prevent many below the knee amputations.

Learn to recognize key radiographic features in your cone beam images of one of the most common and often undetected medical problems - **Type II Diabetes Mellitus.**

Objectives

At the completion of this program dentists will understand:

- what segments of the internal carotid arteries are actually imaged in a typical CBCT scan
- Where to look for calcifications in the various segments of the internal carotid arteries
- How to separate intimal plaques and MAC on both panoramic and CBCT images
- How you can use image processing tools to make the changes more apparent
- When and where to refer your patients with these detected calcifications

1. <https://www.endocrineweb.com/conditions/pre-diabetes/pre-diabetes#%20What%20is%20Prediabetes?>