Is AI Taking Over Dentistry? What Patients Need to Know Transcript

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AI in Modern Dentistry

Hi everyone, Dr. Michelle here. Today we're talking about something that's quickly becoming part of modern dentistry, artificial intelligence, or AI. You may have heard that AI is now analyzing dental x-rays, helping diagnose cavities, and even assisting with treatment planning.

And naturally, that raises some important questions.

ADA Guidance and Responsible Use

Is AI replacing your dentist? Well, let's talk about what's really happening here. Recently, the American Dental Association published standards and guidance on the use of artificial intelligence in dentistry.

This tells us something that we should pay attention to. AI isn't just a trend. It's becoming integrated into clinical practice, and the profession is working to make sure it's used responsibly.

So first, let's clarify something. There is a difference between artificial intelligence and something called augmented intelligence. Artificial intelligence means the machines are making decisions.

Augmented Intelligence vs. AI

Augmented intelligence means that the technology supports but it doesn't actually replace human clinical judgment. And that is really important. Right now, most AI tools in dentistry are being used to help analyze dental x-rays.

For example, AI software can scan an x-ray and highlight possible areas of decay, of bone loss, or of disease. It acts almost like a second set of eyes.

But here's the key.

How AI Assists Dental X-Ray Analysis

The dentist is still responsible for diagnosing and making treatment recommendations and decisions. The ADA has released standards that focus on how these dental images should be collected and what we should even call them if they've been read by AI.

How these AI tools should be validated. Are they accurate or not? How to make sure that your privacy is protected and reducing the bias and how it's trained.

Well, why does this matter? Because as we know everywhere, AI systems are only as good as what they're trained on. So if the data is incomplete or biased, what we get from AI isn't right either.

Validation, Privacy, and Bias Concerns

And in healthcare, being accurate and ethical are really everything. So from a biologic and holistic perspective, here's how I see this. Technology, especially AI, can be helpful.

If it improves the consistency in diagnosis, if it helps me to educate you, if it supports better communication, those are all good things. But it should never replace critical thinking, experience, or the doctor-patient relationship.

Dentistry is not just recognizing patterns on an x-ray.

Why Human Judgment Still Matters

It's understanding the person sitting in the chair, their health history, their airway, their inflammation, their nutrition, their lifestyle, all of the above.

No algorithm can replace that. So should you be worried? At this stage, no. AI is a tool, and like any tool in dentistry, it depends on how it's used.

The encouraging part is that professional organizations are actively creating standards to guide safe and ethical use of all of these tools. The future of dentistry will likely include more technology, but ideally, it will be technology that supports personalized, human-centered care.

And that is something I can get behind. If you found this helpful, make sure you subscribe so we can continue having conversations about the future of dentistry and your health.

The Future of Human-Centered Dentistry

I'll see you next time.