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## **Dental Patient Trust & Technology Survey:**

Technology's role in building trust among dental patients



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# Dental Patient Trust & Technology Survey:

## Technology's Role in Building Trust Among Dental Patients

For over two years since the start of the COVID-19 pandemic, the dental industry has experienced unprecedented upheaval and change unlike any other era in the modern history of the profession. From nationwide dental office closures in 2020 to staffing issues that continue to plague much of the healthcare industry and challenges related to patients returning to care, dental practice owners and dental service organizations (DSOs) have had to reinvent and innovate to make patients feel safe and keep them coming back.

Indeed, across all industries, the pandemic has heralded seismic shifts in technology usage and has forever changed the role it plays in our daily lives. Consumers have learned to trust technology for everything ranging from remote work via Zoom, to home delivery of groceries and goods, to the rapid development of the mRNA vaccines for COVID-19. Now, as we appear to be emerging from the pandemic, the dental industry is at a turning point that could bring positive change to a field that has long faced patient trust issues and has historically been reluctant to embrace new technologies.

Dental practice owners who have successfully weathered the COVID storm have implemented new technologies such as teledentistry, virtual waiting rooms, paperless billing, and online patient portals, which have increased convenience for patients and practices alike. More recently, the U.S. Food and Drug Administration (FDA) approved the first chairside radiologic detection aid that uses artificial intelligence (AI) to help dentists identify numerous common dental conditions. This technology is poised to not only help patients visually understand their diagnosis, but also to improve diagnostic consistency through industry-wide care standardization, ultimately helping improve patient trust in diagnoses. In the coming years, there's no doubt dentists and hygienists will increasingly use AI-aided diagnostics as part of their daily workflow, but what do patients think?



**Office Closed**

To gain a better understanding of patient perspectives, experiences and expectations, Pearl surveyed 597 U.S. dental patients to create the 2022 Dental Patient Trust & Technology Survey. The survey results explore how well patients feel they understand their dental diagnoses, the factors that contribute to patient trust in providers and diagnoses, as well as perceptions around the use of the latest dental technology, including artificial intelligence (AI).

As dental practices look to the future and continue to embrace new technologies, understanding patient experiences and perceptions can help drive success and inform positive business decisions that keep patients coming back.

### Survey Methodology:

Pearl's *Dental Patient Trust & Technology Survey* was administered to U.S. consumers over the age of 26 with a minimum household income of \$50,000. All respondents were required to have visited the dentist at least once within the past four years. The survey was commissioned by Pearl and conducted via SurveyMonkey, and consisted of 10 multiple choice questions. Survey administration ended once 597 respondents were obtained in June 2022.

### SURVEY RESPONDENTS:



**597**  
**U.S. Dental Patients**

Age	Household
<b>26+</b>	<b>\$50k+</b>



# Patient Trust and Understanding of Dental Diagnoses

Do dental patients today understand their diagnoses? Do they typically trust their dentist or do they usually seek a second opinion? What factors are more likely to make them accept treatment?

## WHEN THE DENTIST SHOWS YOU YOUR X-RAYS AND POINTS OUT SOMETHING, HOW WELL DO YOU UNDERSTAND THE X-RAY AND WHAT THEY'RE POINTING OUT?

**65%**

**don't completely understand what their dentist is pointing out in their x-ray**

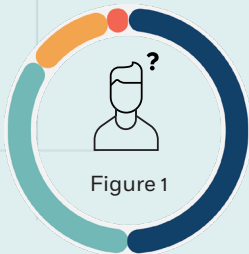


Figure 1

- Completely understand (36%)
- Somewhat understand (51%)
- Vaguely understand (11%)
- Don't understand (2%)

## WHAT PATIENTS THINK OF THEIR DENTIST'S DIAGNOSES

Respondents to Pearl's *Dental Patient Trust & Technology Survey* provided insight into what patients think about their dentists and diagnoses. Survey respondents demonstrated that there is still a lack of both comprehension and trust when it comes to dental diagnoses and understanding their radiographs, with nearly two-thirds of respondents (65%) expressing at least some lack of understanding (Figure 1).

Over half of respondents (59%) stated that they don't completely trust their dentist's diagnoses and would prefer to have a better understanding before accepting treatment (Figure 2).

Overall, only 41% of respondents reported that they would completely trust their dentist's diagnoses and be ready to accept treatment based on x-ray results (Figure 1).

## IF YOUR DENTIST DIAGNOSES AN ISSUE BASED ON X-RAYS OF YOUR TEETH, HOW ARE YOU MOST LIKELY TO RESPOND?

**59%**

**stated that they don't completely trust their dentist's x-ray diagnosis**



Figure 2

- Completely trust the diagnosis & accept treatment (41%)
- Trust the diagnosis & accept treatment, but would like a better understand of the issue. (40%)
- Somewhat trust the diagnosis but want to clearly undrestand the issue before l accept treatment. (18%)
- I don't trust the diagnosis & won't accept treatment until l clearly understand the issue. (1%)
- I usually don't accept treatment at all. (<1%)



**Lack of understanding and practitioner trust can be a barrier to treatment acceptance among patients, who usually have little or no experience reading x-rays. When patients don't feel they completely understand why they're being prescribed a potentially expensive and/or painful treatment, they are more likely to take drastic action like getting a second opinion or even switching dentists.**

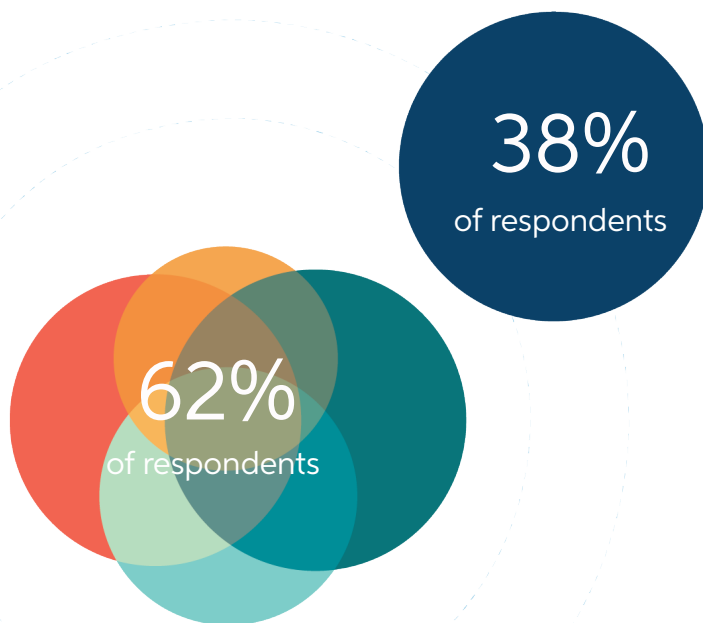


## PATIENT LIKEHOOD OF ACCEPTING TREATMENT

To determine a patient's likelihood of accepting treatment, respondents were asked if a lack of trust in their diagnosis had ever led them to take additional action before agreeing to treatment. The results demonstrated that a lack of trust is a big motivator for patients, with the majority (61%) of respondents reporting that it has caused them to take one or more additional actions (Figure 3). Over a third (34%) of respondents stated that they had delayed treatment, 32% reported they had switched dentists, 25% said they had sought a second opinion, and 19% outright refused treatment (Figure 3).



### HAVE YOU EVER TAKEN ONE OR MORE OF THE FOLLOWING ACTIONS BECAUSE YOU DID NOT AGREE WITH OR DIDN'T TRUST YOUR DENTIST'S DIAGNOSIS?



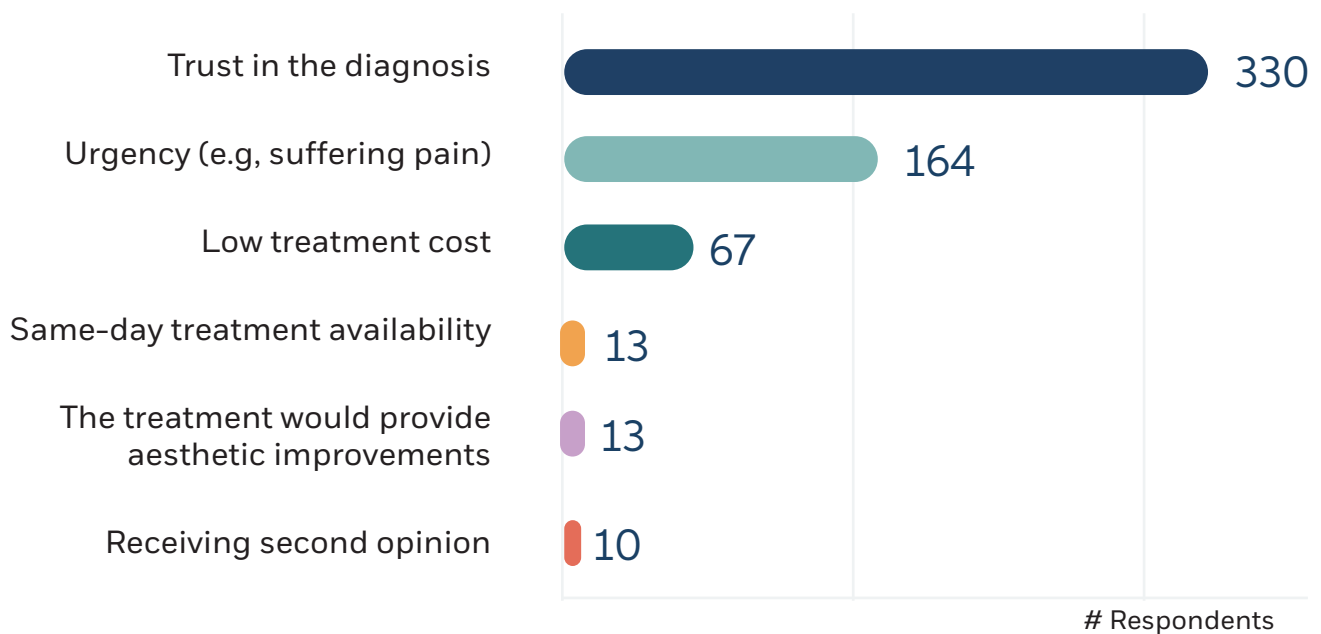
- None of above
- Delayed treatment
- Switched dentist
- Sought a second opinion
- Refused treatment



## HOW IMPORTANT IS TRUST TO PATIENTS?

**RANKED IN ORDER OF IMPORTANCE, WHICH OF THE FOLLOWING FACTORS MOST INFLUENCE YOUR WILLINGNESS TO ACCEPT A TREATMENT FROM YOUR DENTIST?**

Just how important is trust to patients? When asked directly, over half (55%) of respondents said that trust in their diagnosis is the single most important factor affecting their willingness to accept treatment, ranking it above urgency (28%) and treatment cost (11%) (Figure 4).



**Overall, these results demonstrate that when patients lack trust in their diagnosis, the actions they take can have major financial impacts on dental practices. When a patient delays care, seeks a second opinion, or changes providers, dental practice owners run the risk of the patient deciding to permanently seek care elsewhere.**



# Patient Perceptions of Technology Usage in the Dental Practice

Do patients care if their dental practice is using the latest technology? What do patients think about the use of AI? Does it play a role in treatment acceptance?

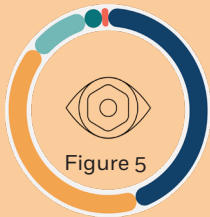
## GROWING TECHNOLOGY ADOPTION IN DENTISTRY

It is often said that little has changed in the dental field since G.V. Black's work established him as the father of modern dentistry over 100 years ago. While this is not a particularly fair characterization, it is true that, traditionally, dental practices have been slow movers when it comes to adopting new technologies.

In the last decade, however, the convenience and clinical efficacy of digital dentistry –

facilitated by advances in practice management software and innovations in medical imaging – have inspired a greater appetite for innovation. The COVID-19 pandemic has further accelerated technology adoption as practices seek to cater to a patient population that has come to expect the same quality services delivered in a lower-touch, higher-efficiency manner.

## HOW IMPORTANT IS IT TO YOU THAT YOUR DENTIST USES THE LATEST TECHNOLOGY?



- Very important (46%)
- Somewhat important (41%)
- Marginally important (10%)
- Neither important nor unimportant (3%)
- Unimportant (<1%)

**87%**

**say it is important that their dentist uses the latest technology.**

How do patients feel about the use of these technologies in the dental office? According to survey respondents, patients agree that dentists should leverage the latest technology, with 87% saying that it is at least somewhat important (Figure 5). Nearly half (46%) stated that it is very important to them that their dentist uses the latest technology.

Technology usage also affects how patients choose their dentists. According to the survey, over one third (37%) of patients would be “much more likely” to choose a dental provider if they knew they were using the latest technology (Figure 6). Overall, 77% of patients reported that they would be at least somewhat more likely to select a dentist if they knew that the dentist was using the newest, most-advanced technology (Figure 6).

## ALL OTHER THINGS BEING EQUAL (COST, LOCATION, ETC.), HOW LIKELY WOULD YOU BE TO CHOOSE A DENTIST IF YOU KNEW THAT THEY WERE USING THE NEWEST, MOST-ADVANCED TECHNOLOGY?



- Much more likely (37%)
- Somewhat more likely (40%)
- Neither more nor less likely (21%)
- Somewhat less likely (1%)
- Much less likely (1%)

**77%**

**would be more likely to choose a dentist that uses advanced technology.**



Due to the important role dental x-rays play in guiding patient care, AI diagnostics is poised to transform the industry and has the potential to ensure diagnostic consistency across providers. But what do patients think? Are they ready to have their first experience with AI-aided diagnostics, and do they trust the technology?

Of survey respondents, 71% agreed that they would more likely to trust their dentist's diagnosis if the dentist were using AI software to assist in x-ray evaluation (Figure 7).

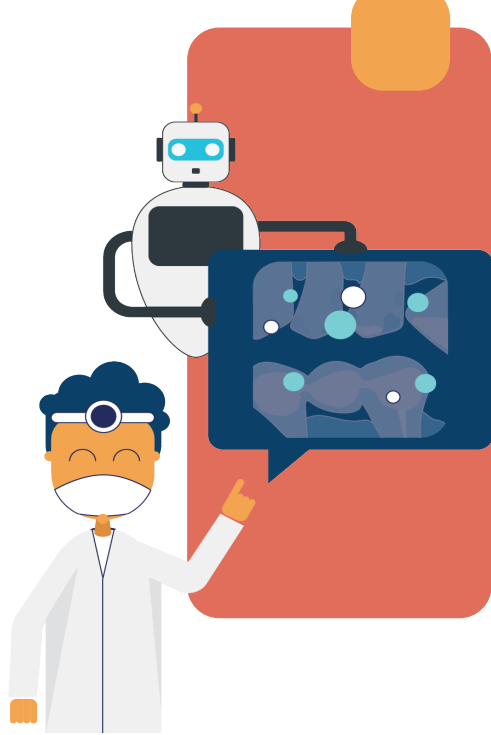
**RATE YOUR AGREEMENT WITH THE FOLLOWING STATEMENT: I AM MORE LIKELY TO TRUST MY DENTIST'S DIAGNOSIS IF THEY ARE USING AI SOFTWARE TO ASSIST WHEN EVALUATING MY X-RAYS.**



Figure 7

- Strongly agree (19%)
- Somewhat agree (52%)
- Somewhat disagree (25%)
- Strongly disagree (4%)



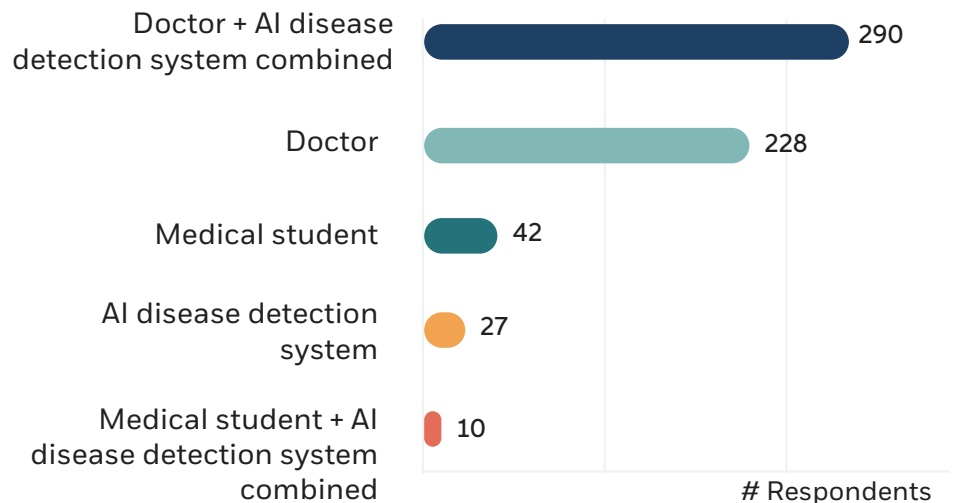


# THE RESULT

Overall, survey results demonstrate that respondents are open to the use of AI in medical diagnostics, but that they also still value the role of the provider.

When asked which, among various sources of diagnostic opinion, would be most likely to ensure an accurate diagnosis, nearly half (49%) of respondents noted that a doctor and AI disease detection system combined would be most likely to accurately diagnose a medical condition, compared to just over a third (38%) of respondents who believed a doctor alone would be most likely.

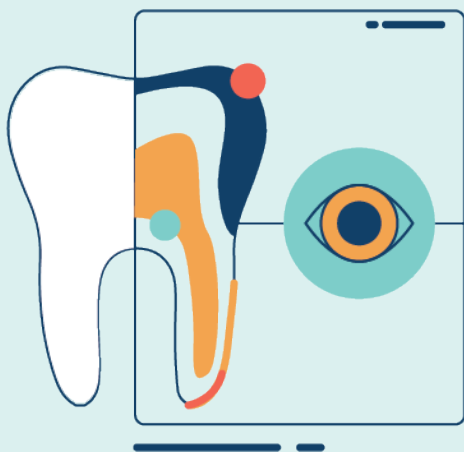
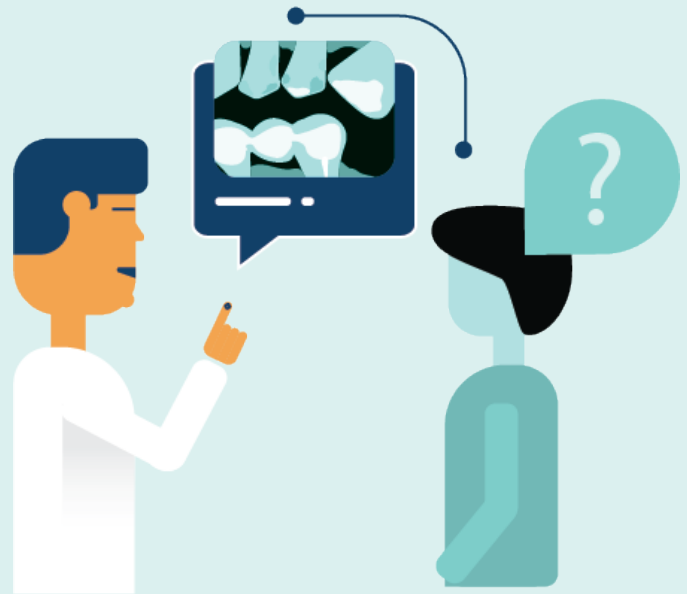
**BASED ON YOUR PAST HEALTHCARE EXPERIENCES AND WHAT YOU UNDERSTAND ABOUT THE CURRENT CAPABILITIES OF AI TECHNOLOGY, WHICH OF THE FOLLOWING DO YOU THINK ARE MOST LIKELY TO ACCURATELY DIAGNOSE A MEDICAL CONDITION?**



**These results represent a major opportunity for dentistry, which is one of the only fields that is already implementing patient-facing, AI diagnostic aids in practices. Based on the survey results, dentistry may be well positioned to open the door to patient-facing AI across healthcare in general.**

# The Role of Technology in Improving Patient Trust

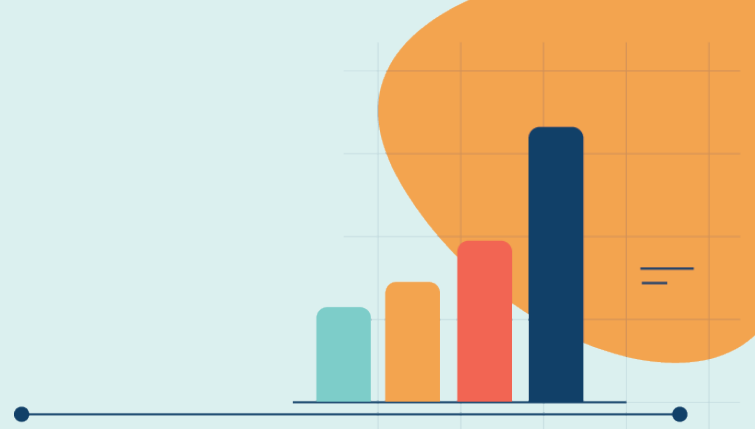
It is clear that dentists' ability to clearly communicate with their patients is one of the biggest factors influencing patient trust and retention. However, patients' lack of understanding of dental x-rays and, subsequently, their diagnoses remains a significant hurdle. Not only can AI diagnostic aids detect oral ailments with machine-like precision, but the technology's ability to annotate x-rays so patients better understand what they are seeing can also help improve trust.



1

## PATIENT EDUCATION FACILITATES INFORMED DECISION-MAKING

AI-powered capabilities like tooth parts segmentation and labeled detections can help educate patients, allowing dental providers to take a consultative approach that allows for shared-decision making and treatment planning. When patients can actually see and understand the parts of their teeth and how they relate to the conditions that the dentist is finding, they can take some ownership over treatment planning and give informed consent when deciding to accept treatment.



2

## TRUST IN TECHNOLOGY STARTS WITH FDA CLEARANCE

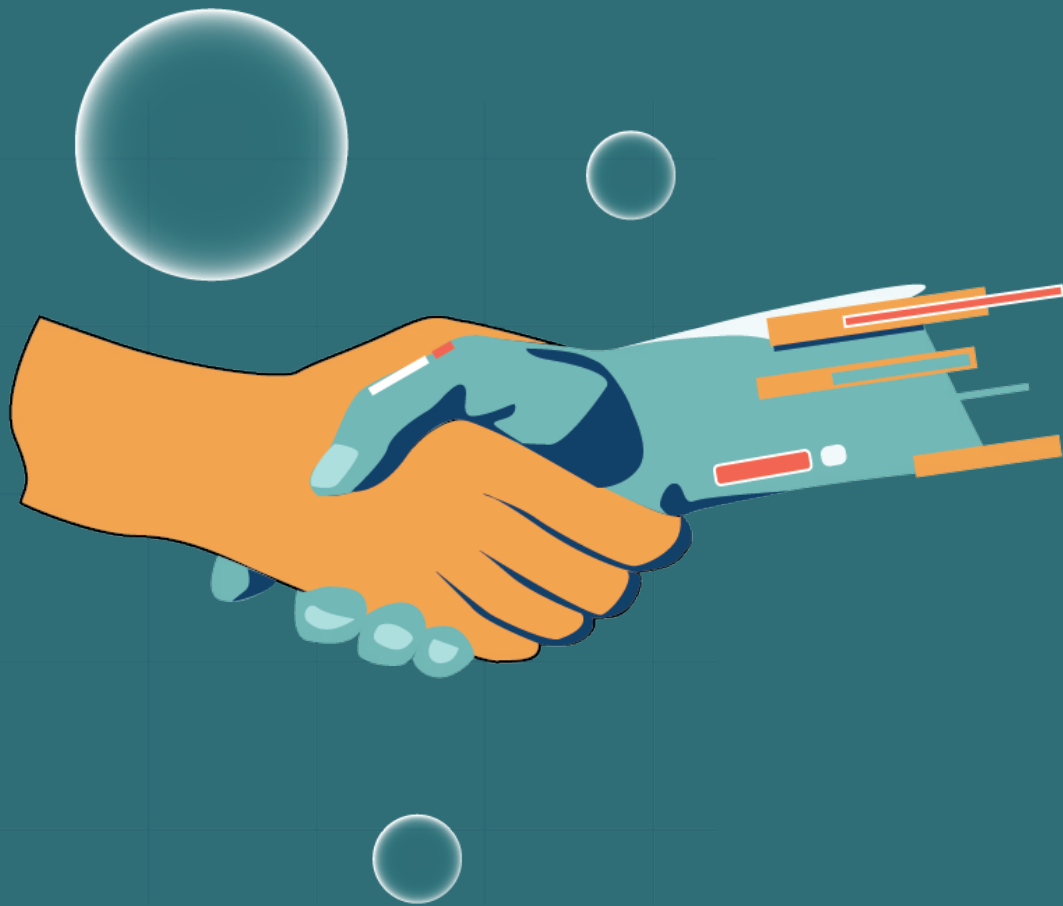
This path toward improved patient communication, trust, and outcomes will start with providers using a device that is cleared by the FDA to ensure safety and efficacy. Indeed, the FDA status of technology applied in patient care significantly impacts the technology's patient trust building value. According to the survey, 85% of respondents said they would trust their dentist less if their dentist were using a device that had not been reviewed and cleared for safety and efficacy by the FDA., with one in four (25%) saying they would no longer trust their dentist at all.

3

## THE FUTURE STANDARD OF CARE IN DENTISTRY

As dentists continue to look for ways to improve retention and incorporate the latest technology to streamline their practices, they should turn their attention to FDA-cleared devices like those employing AI to aid in diagnosis. Patient trust starts with communication and, of course, more accurate diagnoses, but over the long term, it will be fortified by the higher industry-wide standard of care that AI will bring.





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