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ABSTRACT

Treating patients with Alzheimer's disease in the dental office involves more than simply struggling with the execution of certain procedures. While this is a challenge that needs to be understood and navigated, we can do more to prevent this condition. Exciting discoveries have shone a light on connections between Alzheimer's disease and oral health. Through these findings, clinical care, and sharing the message of hope in prevention of Alzheimer's disease, dental professionals can decrease the number of people diagnosed with this life-robbing illness.

EDUCATIONAL OBJECTIVES

1. Examine strategies that can help dental teams deliver care more effectively to patients in the early to middle stages of Alzheimer's disease.
2. Describe the link between Alzheimer's disease and oral health.
3. Restate dentistry's role in reducing patients' risk of developing Alzheimer's disease.
4. Prioritize conversations regarding how patients can maintain brain health at any age.



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Alzheimer's risk reduction and the dental professional

A PEER-REVIEWED ARTICLE | by Angie Stone, BS, RDH, BLS, CDP

Anyone with a loved one who has suffered from Alzheimer's disease (AD) has experienced feelings of helplessness, fear, and doom. These emotions immediately arise due to the narrative given to patients' families with the diagnosis: *There is nothing that can be done. Get your affairs in order because this isn't going to end well.* While this used to be true, we now know there are many treatments and lifestyle adjustments that can halt the progression or lessen the symptoms. Even more exciting is the realization that steps can be taken to reduce the risk of

triggering the genetic code that makes a person more susceptible to an AD diagnosis in the first place.

Alzheimer's disease is often referred to as "dementia." The term "dementia" describes a group of symptoms including memory impairment, inability to reason, and a deficit in the use of language and other thinking skills.¹ Lewy body dementia, frontotemporal dementia, and many other diseases cause the same symptoms. AD is the most common cause of dementia worldwide, as it produces 60%-70% of dementia symptoms.² This is what leads to the

terms “Alzheimer’s disease” and “dementia” being interchanged. Some references for this CE course use the two terms interchangeably, and as such, any use of the word “dementia” means AD in this course.

AD is a multifactorial disease that includes diet, epigenetics, lifestyle, and more. This complexity is likely the biggest reason a cure has not been discovered. Researchers have been hard at work to develop an effective drug, but with less than stellar results. From 1998 to 2018 there were approximately 152 failures.³ The FDA’s approval of a new drug in 2023 created hype and hope, but it may not be as effective as was reported.⁴ Given our current state of research and understanding of AD, a drug alone is not the answer. The 2020 Lancet Commission developed a public health message on AD calling for targeting the modifiable risk factors for dementia.⁵ Researchers are concluding that modifying risk factors (e.g., diet, social experiences, sleep, and many others) is necessary to fight the onset.⁵

Of interest to dental professionals is that the presence of pathogenic oral bacteria increases the risk of AD.⁶ This realization gives the dental team a front-row seat in helping reduce the incidence of this devastating disease. This is a message that dental professionals need to get behind. Over the last generation, dentistry has been discovering ways to prove that we can no longer treat patients in medical silos. The connection between the mouth and the brain is another nexus that helps make our case.

The link

Current research has demonstrated that periodontal disease (PD) poses a risk for AD.⁷ The mechanism of action has to do with the inflammatory process. Oral bacteria are not confined to the oral cavity. While oral inflammation is visible, inflammation from oral

bacteria is not as easily detectible in other areas. *Porphyromonas gingivalis* (Pg) doesn’t rely on blood transportation; this pathogen enters the central nervous system by nerve pathways and subsequently crosses the blood-brain barrier.⁷ Chronic periodontitis (CP) and infection with Pg are known risk factors for the development of dementia and AD. Once in the brain, Pg secretes gingipains, which in turn cause damage to neurons in the brain.⁸ This process increases the risk of AD. In recent research, Pg has been found in brain tissues of AD patients.⁹

Knowledge is power

To help patients understand if their oral health is putting them at risk for AD, it is necessary to determine the presence of Pg bacteria. This can be done easily with a chairside saliva test. Salivary testing allows clinicians to base treatment on the patient’s oral microbiota. This presents an opportunity to detect pathogenic bacterial loads early and can lead to complete prevention of PD. The result can lead to the mitigation of a major risk factor for AD.¹⁰ Knowing what specific periodontal pathogens are present in a patient’s mouth means treatment planning and risk assessment are not created based on subjective means, but are constructed with actual data.¹¹ Retesting after completion of appropriate clinical care and home care provides proof of bacterial reduction. This information is crucial for the control of bacteria and the removal of oral disease contributing to AD.

Implementation of oral health and risk reduction protocol

There are several things that can be implemented into dental office protocol to ensure patients’ oral health is not increasing their AD risk. First and foremost, questions about brain

health need to be added to the health history form. Questions that should be included are:

1. Do you have a family history of Alzheimer’s disease?

Do you know your genetic APOE status? The apolipoprotein E (APOE) gene influences AD risk.¹² The gene helps create a protein that assists in the transportation of cholesterol and other types of fat in the bloodstream. Researchers believe that complications with this process contribute to the development of AD.¹² APOE comes in several forms, called alleles (e.g., e2, e3, e4). The presence of e2 is thought to be somewhat protective against AD; e3 has no increased protection or risk; and e4 is thought to represent the highest risk. APOE alleles are expressed as APOE 2/2, APOE 2/3, APOE 2/4, APOE 3/4, or APOE 4/4, with APOE 4/4 conveying the highest risk for AD.¹²

Knowing the numbers of the alleles a person carries can assist in understanding genetic risk. This may be considered if there is a family history of AD. APOE status can be discovered via a simple blood or saliva test. It is important to note that regardless of APOE status, a person may or may not get AD. If APOE status places higher risk on development of AD, there are many ways to assist in keeping the gene turned off, so to speak.¹²

2. Have you been diagnosed with mild cognitive impairment, dementia, or Alzheimer’s disease?

Understanding if there has been a diagnosis of any of these conditions lets the clinical team know how to best care for the patient. Mild cognitive impairment (MCI) is an early-stage diagnosis that precedes moderate dementia symptoms.¹³ MCI causes cognitive ability loss (such as language or visual/spatial perception), but people with MCI generally maintain the ability to independently perform

most activities of daily living.¹³ MCI is likely to progress to dementia/AD if a reversal protocol is not implemented early.^{14,15}

3. Do you sleep 7–8 hours a night?

Sleep is an important component of human life, yet many do not understand the direct correlation between the health of the brain and sleep. Some people seem to be proud to announce that they need only a few hours of sleep per night. This could not be further from the truth. A minimum of seven hours of daily sleep seems to be necessary for proper cognitive and behavioral function.¹⁶ It has been proven that the proper amount of sleep improves memory recall, regulates metabolism, and reduces mental fatigue.¹⁶ During sleep, the glymphatic system is hard at work removing toxins and inflammation from the brain. Repeated nights of short sleep time deprive the brain of this important cleaning, and this leads to neuroinflammation, which can lead to memory issues.¹⁶ The importance of sleep cannot be overstated.

Categorizing risk by age

People have varying knowledge, concerns, and risks regarding AD, and they can loosely be categorized by age.

Age 60: It is most important to have a brain health conversation with patients in this age group. Some may be showing early signs of MCI and may be concerned with developing AD. Many in this age group know people who have succumbed to AD and may worry that they might suffer the same fate. They also may be in a supportive role for a family member who has AD currently. There are proven preventive strategies that can start immediately and cost nothing. Sharing this message is vital. Implementation considerations for this age group include salivary diagnostics, a mini-mental

state examination (MMSE) if it hasn't been completed by the patient's physician, and the Epworth Sleepiness Scale (ESS). Depending on screening results, referral to a medical professional may be warranted.

A MMSE is a set of questions often used by physicians and other health-care professionals to check for cognitive impairment (i.e., problems with thinking, communication, understanding, and memory). It serves as a quick and easy screening tool that can provide insight into a person's current cognitive status.¹⁷ If the score indicates reason for concern, referral to the patient's physician is warranted. Recognizing early decline in cognition offers the best chance of reversing and/or halting the decline.

Among the many sleep screening tools available today is the ESS. It is a short assessment that can assist in identifying how likely a person is to fall asleep during the daytime.¹⁸ Depending on the score, referral to a physician may be recommended to further assess how the person is sleeping and discover if there are underlying issues causing daytime sleepiness. Dental offices completing sleep screening protocols can be helpful to patients, as the national average wait time for a sleep study is over two months.¹⁹

Age 50: This group may be worried as well, but it's different for them. They may have a loved one in the early/middle stages of AD. They likely have heard the narrative that there is nothing you can do. While still managing busy lives, it is easier to put worries on the back burner until there are some definitive signs to be concerned about. This is the time to be proactive with education regarding prevention and screenings. The screenings done with those in their sixties (e.g., salivary diagnostics, MMSE, and ESS) should also be completed with this group.

Age 40: This group may have a grandparent who has AD. Watching the process from a bit of a distance, they may be concerned about their parents getting AD. Getting superconcerned is difficult because they may be raising children, holding down jobs, and developing their own lives. Raising awareness of the oral health/brain health link should be the focus here, along with educating about general measures that can be taken to keep the brain healthy. Arresting any bleeding tissues and performing salivary diagnostics are appropriate, as is an ESS screening if the patient reports not sleeping well. Ensuring good oral health removes the risk of the mouth contributing to brain deterioration.

Age 25: This group is typically farther removed from AD than any of the previously mentioned groups. They may have heard of family members or others who have had AD, but likely were not intimately involved in the process. AD is unlikely on their radar, as this age group is still absorbed in developing themselves. A dental visit that addresses gingivitis or oral breathing and sleep provides the perfect opportunity to make a change in the trajectory of the AD epidemic. Sharing information about the ability to keep their brain from deteriorating in general and the role oral health plays is key to this change. As these individuals begin to build their families, being armed with brain health information will also have a positive impact on any children they bring into the world. Real change can happen here. Consider salivary diagnostics and adjunctive therapies to assist the patient in maintaining healthy oral tissues.

Age 18: It is well established that the brain undergoes a "rewiring" process that is not complete until approximately 25 years of age.²⁰ Knowing this allows clinicians to understand

that oral health may not be a priority for these patients who are busy navigating their daily lives. Teaching about oral health and basic ways to care for the brain (e.g., reducing consumption of processed foods, reducing use of energy drinks, wearing seat belts in vehicles) is a great way to weave brain health into an oral health conversation.

Age 12: These patients generally do not know anything about AD. They receive most of their health information from parents and school. The dental team can be another source of learning for this group. Teaching about general brain health and how to maintain oral health should be the focus here. Wearing helmets and mouth guards when riding bikes, skateboarding, playing sports, etc., to protect against concussions is a great talking point. Ensuring the parent/guardian hears this message is important as well.

Dental care and the Alzheimer's patient

Once there is a diagnosis of AD, good oral health is crucial. Addressing active tooth decay and periodontal concerns as soon as possible is necessary. All dental and dental hygiene procedures will become impossible to complete in the later stages of the disease. The biggest oral health opportunity is getting bacteria under control with salivary diagnostics and eradication of harmful bacteria. The goal when providing preventive care in developing good oral flora and completing dental procedures is to reduce the likelihood of the patient needing dental work in the future.

A person suffering with AD will go through seven stages of the disease (table 1).²¹ There is no telling how long each stage will last or how long the entire process will take. Each victim of this disease is unique. There is a high risk of dental disease beginning in stage 4, because

STAGE	FUNCTIONAL ABILITIES
Stage 1	Normal adult. No functional decline.
Stage 2	Awareness of some functional decline.
Stage 3	Early Alzheimer's. Functions at about 12 years of age.
Stage 4	Mild Alzheimer's. Requires some assistance.
Stage 5	Needs help getting dressed. Functions at 5-7 years of age.
Stage 6	Needs 24/7 care. Functions at 2-4 years of age.
Stage 7	Severe Alzheimer's. Functions at level of a newborn.

TABLE 1: The Functional Assessment Staging (FAST) Scale²¹

patients in this stage have usually lost the ability to independently perform oral care. Therefore, a protocol of weekly professional oral care should be implemented.²² This care is typically provided by a dental hygienist at the AD patient's place of residence. Thorough brushing and between-the-teeth cleaning is completed to reduce bacterial load. Restorative dentistry needs to be done before the end of the fourth stage. If it is not completed before stage 5, it will be very challenging to complete. Once a person reaches stage 6, restorative and dental hygiene care is usually impossible.

When working with patients who have dementia, it is important to understand what stage they are in so communication and treatment can be completed as easily as possible. Stages 1 and 2 do not require any modifications to interaction with the patient and appointment sequence. When a patient transitions into stage 3, they are usually functioning similar to a 12-year-old. They may ask questions repeatedly and may not have a long attention span. They may not remember conversations and oral care instructions. In stage 4 they require assistance and direction. They become more easily confused and disoriented. A care partner will likely need to be involved in any appointments to answer medical history questions, schedule any necessary appointments, and implement home-care recommendations.

A patient in stage 4 needs special interaction from the dental team. When greeting the patient in the waiting room, approach the patient. Do not stand at the desk and call their name. Approach them from the front, smile, and extend your hand as you say "Hello" and the patient's name. If the patient extends their hand back to you, that is a sign that they are comfortable with you and will likely be cooperative during the appointment. Talk slowly and clearly. Do not speak louder unless you are aware of a hearing issue. Patients in stage 4 cannot make decisions easily. Try not to ask questions that require them to make a choice between several things. If any home-care recommendations are made, write them down after discussing with the patient and a care partner. Give written recommendations to the care partner.

The bright spot

There is hope when it comes to reducing the incidence of AD. There are medical professionals who have dedicated their lives to finding ways to prevent cognitive decline and even ways to recover from early-stage AD.²³ They have made great strides over the years. A diagnosis of AD no longer needs to be a death sentence. Dale Bredesen, MD, author of *The End of Alzheimer's*, states, "Although the dogma has been that there is nothing that prevents, slows, or reverses the course of cognitive decline in diseases such as Alzheimer's

disease, there are clearly multiple studies now—in both anecdotal and controlled trials—that show examples in which there is indeed prevention and/or reversal of decline.”²³

The keys to prevention reside in awareness, assessment, ascertainment, and action: *awareness* of the major risk factors, *assessment* of personal risk factors, *ascertainment* of what risks the person wants to reduce, and taking *action* to reduce the risks. Having an individualized risk reduction protocol provides the best prevention.

Precision medicine is an innovative approach that takes into account differences that are unique to each patient.²⁴ This approach considers more than routine bloodwork and prescribing medication—patients’ genes, environments, and lifestyles are also evaluated. This methodology has grown out of biomedical research and has served millions of patients.²⁴ Functional primary care providers, functional nutritionists, and functional neurologists who incorporate precision medicine hold great promise for maintaining brain health. Certified brain longevity specialists are another resource for those interested in implementing Alzheimer’s risk reduction protocols. Dental professionals can collaborate with colleagues in these fields to help patients mitigate the risk of dementia and AD.

Dentistry has a front-row seat to assist individual patients in changing the way they think about AD. When the entire profession of dentistry is

on board, they will ultimately help change the way the world thinks about this disease. Teaching about the oral health and brain health connection, providing in-office screenings, making appropriate referrals, and collaborating with other medical professionals on the forefront of precision medicine can make a difference. This is a chance to make a mark on the world in the name of oral-systemic health.

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Angie Stone, BS, RDH, BLS, CDP, is an international speaker, author of *Dying from Dirty Teeth*, researcher, clinician, and business owner. Her interest in Alzheimer’s disease stems from watching three generations of family members lose their lives

to this devastating process and providing dental hygiene services to memory care residents. As a brain longevity specialist, she teaches people to maintain their brain health and reduce chances of dementia. Contact Angie via maintainyourbrain.net.

QUESTIONS

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- What are people usually told when they are diagnosed with Alzheimer's disease?
 - We can cure this disease.
 - Get your affairs in order. This is not going to end well.
 - You should eat more fruit.
 - You should stop drinking.
- Alzheimer's disease and this term are often interchanged.
 - Lewy body dementia
 - Senility
 - Dementia
 - Forgetfulness
- What disease creates the most dementia symptoms?
 - Frontotemporal lobe dementia
 - Lewy body dementia
 - Mixed dementia
 - Alzheimer's disease
- There isn't a drug that can cure Alzheimer's disease likely because:
 - It is a multifactorial disease.
 - Medications don't affect the brain.
 - We don't need to cure Alzheimer's disease.
 - All of the above.
- What is the link between oral health and Alzheimer's disease?
 - Dental caries
 - Plaque
 - Periodontal disease
 - Malocclusion
- Which of the following bacteria have been identified in the brains of Alzheimer's sufferers?
 - Fusobacterium necrophorum (Fn)*
 - Porphyromonas gingivalis (Pg)*
 - Prevotella intermedia (Pi)*
 - Treponema denticola (Td)*
- What structure does *Pg* pass through to get into the brain?
 - Blood-brain barrier
 - Central nervous system
 - Veins
 - Arteries
- What screening tool can determine the presence and levels of *Pg*?
 - Disclosing solution
 - Diagnodent
 - Microscope
 - Salivary testing
- Salivary diagnostics provides which of the following?
 - Hard data
 - Subjective data
 - Distress for the patient
 - None of the above
- Which questions should be added to the medical history questionnaire regarding brain health?
 - Do you have a family history of Alzheimer's disease?
 - Have you been diagnosed with mild cognitive impairment?
 - Have you had your appendix removed?
 - Both A and B
- Which of the following is a gene that helps determine risk of Alzheimer's disease?
 - BRACA
 - APOE
 - MTHFR
 - IL6
- APOE status can be determined by:
 - Blood test
 - Saliva test
 - Hair test
 - Both A and B
- If a person has an APOE allele that increases their risk of Alzheimer's disease, which of the following is true?
 - The person will get Alzheimer's disease.
 - There is nothing they can do to keep the gene turned off.
 - Their children will also get Alzheimer's disease.
 - None of the above is true.
- Which is true about a person diagnosed with mild cognitive impairment?
 - They can complete most daily tasks on their own.
 - They do not remember their family members' names.
 - They cannot brush their own teeth.
 - All of the above are true.
- While a person sleeps, what system is at work ridding the brain of toxins and inflammation?
 - Lymphatic
 - Central nervous
 - Glymphatic
 - Circulatory
- Which of the following screenings may be considered for patients ages 60 and older to assist in determining risk for Alzheimer's?
 - Salivary diagnostics
 - Mini-mental state examination
 - Both A and B
 - Neither A nor B
- Which is true about the mini-mental state examination?
 - It takes a long time to complete.
 - It helps discover problems with thinking, communication, understanding, and memory.
 - Dental professionals cannot administer a mini-mental state examination.
 - It is expensive.
- Which age group is the most likely to have the most experience with Alzheimer's disease in their family?
 - 60
 - 40
 - 25
 - 18
- Which age group is the least likely to be concerned about Alzheimer's disease?
 - 60
 - 50
 - 40
 - 25

20. The brain is not completely formed until what age?

- A. 12
- B. 18
- C. 25
- D. 40

21. What is the goal for oral health when a person is initially diagnosed with Alzheimer's disease?

- A. Cancel all appointments because the patient cannot have dental care.
- B. Complete all necessary restorative work and periodontal therapy.
- C. Extract all of the patient's teeth.
- D. There does not need to be a goal.

22. How many stages of Alzheimer's disease are there?

- A. 10
- B. 7
- C. 4
- D. 8

23. All necessary dental work should be completed before the end of which stage of Alzheimer's disease?

- A. 1
- B. 3
- C. 4
- D. 7

24. Why is the risk of dental disease high in stage 4 of Alzheimer's disease?

- A. The patient can no longer perform oral hygiene independently.
- B. The patient doesn't care about their oral health in this stage.
- C. The patient swallows toothpaste in this stage.
- D. The patient cannot afford dental products at this stage.

25. In what Alzheimer's stage do people have the cognition of about a 12-year-old?

- A. 1
- B. 2
- C. 3
- D. 4

26. What communication modalities are important when working with an Alzheimer's patient in stage 4 and higher?

- A. Stand in the reception area and call the patient's name.
- B. Talk slowly and clearly.
- C. Extend a hand when greeting the patient.
- D. Both B and C

27. Which of the following procedures will become impossible to complete with a patient with severe Alzheimer's disease?

- A. Restorations
- B. Crowns
- C. Prophylaxis
- D. All of the above

28. Dr. Dale Bredesen states that:

- A. Multiple studies now show examples in which there is indeed prevention and/or reversal of cognitive decline.
- B. There is nothing that can be done to slow or reverse cognitive decline.
- C. Suffering from Alzheimer's disease is inevitable.
- D. None of the above

29. What are the keys to keeping personal risk for Alzheimer's disease as low as possible?

- A. Understand the risks of Alzheimer's disease
- B. Understand your individual risk factors
- C. The development of a personalized Alzheimer's risk reduction protocol
- D. All of the above

30. Which is true about precision medicine?

- A. It takes into consideration differences in patients' genes, environments, and lifestyles.
- B. It treats all patients the same.
- C. It has been practiced for hundreds of years.
- D. It has helped about 100 people.

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Endeavor Business Media is a nationally approved PACE program provider for FAGD/MAGD credit. Approval does not imply acceptance by any regulatory authority or AGD endorsement. 11/1/2019 to 10/31/2024. Provider ID# 320452. AGD code: 730



Endeavor Business Media is designated as an approved Provider by the American Academy of Dental Hygiene, Inc. #AADHPNW (January 1, 2023–December 31, 2024). Approval does not imply acceptance by a state or provincial Board of Dentistry. Licensee should maintain this document in the event of an audit.

AADH code: AADHEBM-233-2-2025-3

ADA CERP® Continuing Education Recognition Program

Endeavor Business Media is an ADA CERP-recognized provider. ADA CERP is a service of the American Dental Association to assist dental professionals in identifying quality providers of dental continuing education. ADA CERP does not approve or endorse individual courses or instructors, nor does it imply acceptance of credit hours by boards of dentistry. Concerns or complaints about a CE provider may be directed to the provider or to ADA CERP at ada.org/cerp.



Alzheimer’s risk reduction and the dental professional

NAME: _____ TITLE: _____ SPECIALTY: _____

ADDRESS: _____ EMAIL: _____ AGD MEMBER ID (IF APPLIES): _____

CITY: _____ STATE: _____ ZIP: _____ COUNTRY: _____

TELEPHONE (PRIMARY): _____ TELEPHONE (OFFICE): _____

REQUIREMENTS FOR OBTAINING CE CREDITS BY MAIL/FAX: 1) Read entire course. 2) Complete info above. 3) Complete test by marking one answer per question. 4) Complete course evaluation. 5) Complete credit card info or write check payable to Endeavor Business Media. 6) Mail/fax this page to DACE.

If you have any questions, please contact dace@endeavorb2b.com or call (800) 633-1681. A score of 70% or higher is required for CE credit.

COURSE CAN ALSO BE COMPLETED ONLINE AT A LOWER COST. Scan the QR code or go to dentalacademyofce.com to take advantage of the lower rate.



EDUCATIONAL OBJECTIVES

- Examine strategies that can help dental teams deliver care more effectively to patients in the early to middle stages of Alzheimer’s disease.
- Describe the link between Alzheimer’s disease and oral health.
- Restate dentistry’s role in reducing patients’ risk of developing Alzheimer’s disease.
- Prioritize conversations regarding how patients can maintain brain health at any age.

COURSE EVALUATION

- Were the individual course objectives met?

Objective #1: Yes No Objective #3: Yes No
 Objective #2: Yes No Objective #4: Yes No

Please evaluate this course by responding to the following statements, using a scale of Excellent = 5 to Poor = 0.

- | | | | | | | |
|--|---|-----|----|---|---|---|
| 2. To what extent were the course objectives accomplished overall? | 5 | 4 | 3 | 2 | 1 | 0 |
| 3. Please rate your personal mastery of the course objectives. | 5 | 4 | 3 | 2 | 1 | 0 |
| 4. How would you rate the objectives and educational methods? | 5 | 4 | 3 | 2 | 1 | 0 |
| 5. How do you rate the author’s grasp of the topic? | 5 | 4 | 3 | 2 | 1 | 0 |
| 6. Please rate the author’s effectiveness. | 5 | 4 | 3 | 2 | 1 | 0 |
| 7. Was the overall administration of the course effective? | 5 | 4 | 3 | 2 | 1 | 0 |
| 8. Please rate the usefulness and clinical applicability of this course. | 5 | 4 | 3 | 2 | 1 | 0 |
| 9. Please rate the usefulness of the references. | 5 | 4 | 3 | 2 | 1 | 0 |
| 10. Do you feel that the references were adequate? | | Yes | No | | | |
| 11. Would you take a similar course on a different topic? | | Yes | No | | | |

12. If any of the continuing education questions were unclear or ambiguous, please list them.

13. Was there any subject matter you found confusing? Please describe.

14. How long did it take you to complete this course?

15. What additional dental continuing education topics would you like to see?

Mail/fax completed answer sheet to:

Endeavor Business Media

Attn: Dental Division; 7666 E. 61st St. Suite 230, Tulsa, OK 74133
 Fax: (918) 831-9804

Payment of \$69 is enclosed (this course can be completed online for \$39. Scan the QR code or go to dentalacademyofce.com to take advantage of the lower rate).

Make check payable to Endeavor Business Media

If paying by credit card, please complete the following:

MC Visa AmEx Discover

Acct. number: _____

Exp. date: _____ CVC #: _____

Billing address: _____

Charges on your statement will show up as Endeavor.

- | | |
|---|---|
| 1. <input type="radio"/> A <input type="radio"/> B <input type="radio"/> C <input type="radio"/> D | 16. <input type="radio"/> A <input type="radio"/> B <input type="radio"/> C <input type="radio"/> D |
| 2. <input type="radio"/> A <input type="radio"/> B <input type="radio"/> C <input type="radio"/> D | 17. <input type="radio"/> A <input type="radio"/> B <input type="radio"/> C <input type="radio"/> D |
| 3. <input type="radio"/> A <input type="radio"/> B <input type="radio"/> C <input type="radio"/> D | 18. <input type="radio"/> A <input type="radio"/> B <input type="radio"/> C <input type="radio"/> D |
| 4. <input type="radio"/> A <input type="radio"/> B <input type="radio"/> C <input type="radio"/> D | 19. <input type="radio"/> A <input type="radio"/> B <input type="radio"/> C <input type="radio"/> D |
| 5. <input type="radio"/> A <input type="radio"/> B <input type="radio"/> C <input type="radio"/> D | 20. <input type="radio"/> A <input type="radio"/> B <input type="radio"/> C <input type="radio"/> D |
| 6. <input type="radio"/> A <input type="radio"/> B <input type="radio"/> C <input type="radio"/> D | 21. <input type="radio"/> A <input type="radio"/> B <input type="radio"/> C <input type="radio"/> D |
| 7. <input type="radio"/> A <input type="radio"/> B <input type="radio"/> C <input type="radio"/> D | 22. <input type="radio"/> A <input type="radio"/> B <input type="radio"/> C <input type="radio"/> D |
| 8. <input type="radio"/> A <input type="radio"/> B <input type="radio"/> C <input type="radio"/> D | 23. <input type="radio"/> A <input type="radio"/> B <input type="radio"/> C <input type="radio"/> D |
| 9. <input type="radio"/> A <input type="radio"/> B <input type="radio"/> C <input type="radio"/> D | 24. <input type="radio"/> A <input type="radio"/> B <input type="radio"/> C <input type="radio"/> D |
| 10. <input type="radio"/> A <input type="radio"/> B <input type="radio"/> C <input type="radio"/> D | 25. <input type="radio"/> A <input type="radio"/> B <input type="radio"/> C <input type="radio"/> D |
| 11. <input type="radio"/> A <input type="radio"/> B <input type="radio"/> C <input type="radio"/> D | 26. <input type="radio"/> A <input type="radio"/> B <input type="radio"/> C <input type="radio"/> D |
| 12. <input type="radio"/> A <input type="radio"/> B <input type="radio"/> C <input type="radio"/> D | 27. <input type="radio"/> A <input type="radio"/> B <input type="radio"/> C <input type="radio"/> D |
| 13. <input type="radio"/> A <input type="radio"/> B <input type="radio"/> C <input type="radio"/> D | 28. <input type="radio"/> A <input type="radio"/> B <input type="radio"/> C <input type="radio"/> D |
| 14. <input type="radio"/> A <input type="radio"/> B <input type="radio"/> C <input type="radio"/> D | 29. <input type="radio"/> A <input type="radio"/> B <input type="radio"/> C <input type="radio"/> D |
| 15. <input type="radio"/> A <input type="radio"/> B <input type="radio"/> C <input type="radio"/> D | 30. <input type="radio"/> A <input type="radio"/> B <input type="radio"/> C <input type="radio"/> D |

CUSTOMER SERVICE: (800) 633-1681

EXAM INSTRUCTIONS. All questions have only one answer. If mailed or faxed, grading of this examination is done manually. Participants will receive confirmation of passing by receipt of a Verification of Participation form. The form will be mailed within two weeks after receipt of an examination.

COURSE EVALUATION AND FEEDBACK. We encourage participant feedback. Complete the evaluation above and e-mail additional feedback to Rachel McIntyre (rmcintyre@endeavorb2b.com) and Laura Winfield-Roy (lwinfield@endeavorb2b.com).

COURSE CREDITS AND COST. All participants scoring 70% or higher on the examination will receive a verification form for three (3) continuing education (CE) credits. Participants are urged to contact their state dental boards for CE requirements. The cost for courses ranges from \$20 to \$110.

CANCELLATION AND REFUND POLICY. Participants who are not 100% satisfied can request a refund by contacting Endeavor Business Media in writing.

RECORDKEEPING. Endeavor Business Media maintains records of your successful completion of any exam for a minimum of six years. Please contact our offices for a copy of your CE credits report. This report, which will list all credits earned to date, will be generated and mailed to you within five business days of receipt.

IMAGE AUTHENTICITY. The images in this educational activity have not been altered.

PROVIDER INFORMATION. Endeavor Business Media is an ADA CERP-recognized provider. ADA CERP is a service of the American Dental Association to assist dental professionals in identifying quality providers of continuing dental education. ADA CERP neither approves nor endorses individual courses or instructors, nor does it imply acceptance of credit hours by boards of dentistry. Concerns about a CE provider may be directed to the provider or to ADA CERP at ada.org/cefp.

Endeavor Business Media is designated as an approved PACE program provider by the Academy of General Dentistry. The formal continuing dental education programs of this program provider are accepted by the AGD for fellowship, mastership, and membership maintenance credit. Approval does not imply acceptance by a state or provincial board of dentistry or AGD endorsement. The current term of approval extends from 11/1/2018 to 10/31/2024. Provider ID# 320452. AGD code: 730730.

Dental Board of California: Provider RP9833. Course registration number CA code: 03-5933-22271 03-5933-22271 Expires 7/31/2024. *This course meets the Dental Board of California’s requirements for three (3) units of continuing education.*

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