

## SUPPLEMENTAL DATA

This material is an online-only supplement to the following article: O'Donnell JA, Modesto A, Oakley M, Polk DE, Valappil B, Spallek H. Sealants and dental caries: insight into dentists' behaviors regarding implementation of clinical practice recommendations. JADA 2013;144(4):e24-e30. Copyright © 2013 American Dental Association. All rights reserved.

# Appendix A

## Case 1 vignette

**History and chief complaint.** A 20-year-old man presents to your practice for a checkup and reports that he can't remember if he had a cavity that was not taken care of at his last visit with another dentist 3½ years ago. He has not had any symptoms but decided to see you because, following a lapse in employment, he recently started a job in a fast-food restaurant that provides dental insurance.

The patient's medical history is unremarkable. His dental history indicates sporadic visits to the dentist, generally related to when insurance was available to his family. For most of his life, he lived in a fluoridated area of western Pennsylvania. He now lives near Pittsburgh where he works full time at the fast-food restaurant and attends community college part time. His last dental visit was 3½ years ago, at which time he received two small restorations. His intake of starchy or sugary foods is limited to mealtimes. He is permitted one meal at the restaurant but prefers to prepare his own, more nutritious food. His oral hygiene habits include brushing twice daily, once in the morning and once before bed, and flossing one to two times per week.

**Examination findings.** The patient's head and neck examination findings are unremarkable. On oral examination, you note that he has three occlusal amalgam restorations (teeth nos. 14, 19 and 30), two of which he reports were placed at his last visit 3½ years ago, and all of which are intact and in good condition. There is no visible plaque. Probing depths are all less than 3 millimeters. He has no exposed root surfaces. He is missing his first premolars, which, according to the patient, were extracted to allow his third molars to erupt. You note three lesions on the occlusal surfaces of teeth nos. 3, 12 and 17 (eFigures 1-3).

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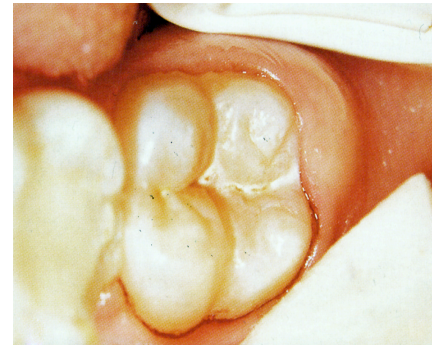
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**eFigure 1.** Tooth no. 3: noncavitated pit-and-fissure lesion. Photograph reproduced with permission of John Wiley & Sons, Hoboken, N.J., from Fejerskov and colleagues.<sup>13</sup>



**eFigure 2.** Tooth no. 12: noncavitated pit-and-fissure lesion. Photograph reproduced with permission of John Wiley & Sons, Hoboken, N.J., from Fejerskov and colleagues.<sup>13</sup>



**eFigure 3.** Tooth no. 17: white, opaque noncavitated lesion. Photograph reproduced with permission of John Wiley & Sons, Hoboken, N.J., from Fejerskov and colleagues.<sup>13</sup>

A full-mouth series of radiographs was obtained at this visit, and there are no occlusal or interproximal lesions.

## GLOSSARY OF TERMS

- A noncavitated carious lesion (also sometimes referred to as an early lesion, an incipient lesion or a white spot lesion) is a demineralized lesion without evidence of cavitation.<sup>13</sup>
- A cavitated lesion is a demineralized lesion with evidence of cavitation.<sup>13</sup>

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## Appendix B

### Case 2 vignette

**History and chief complaint.** The patient is a 40-year-old female patient of record in your office for the past year. She presents to your office today for a routine six-month recall visit. She is asymptomatic. You review her chart and note that she grew up in a nonfluoridated community. She received sporadic dental care as a child but now presents for care on a regular basis.

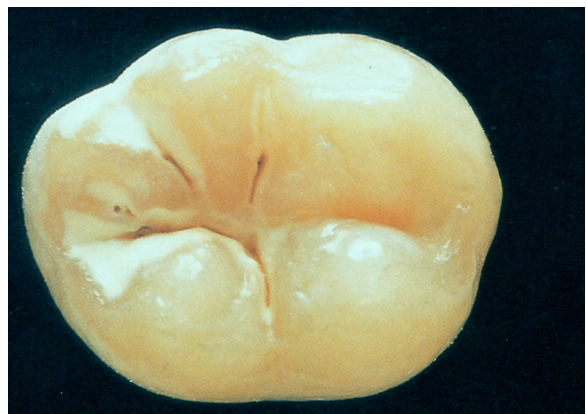
Her health history is significant for hypothyroidism, for which she takes levothyroxine daily (no oral adverse effects). She admits to being one month into recovery for alcohol use. She denies smoking. Her intake of starchy or sugary foods is primarily limited to mealtimes. She reports brushing twice daily and flossing at least four times per week.

**Examination findings.** On examination, you note that the patient has good oral hygiene with no visible plaque. Probing depths are within normal limits. She is not missing any teeth and has no root exposure. She has three porcelain-fused-to-metal crowns (teeth nos. 3, 19 and 30), which were placed four years ago as a result of large restorations that were failing, and two interproximal Class 2 amalgam restorations (teeth nos. 2 and 13) placed two years ago. All restorations are intact and in good condition.

Your findings on examination are shown in eFigures 4 and 5.



**eFigure 4.** Tooth no. 14: small, noncavitated occlusal lesion. Image provided courtesy of Dr. Amid I. Ismail, the Detroit Dental Health Project (National Institute of Dental and Craniofacial Research grant U-54 DE 14261-01).<sup>1</sup>



**eFigure 5.** Tooth no. 31: noncavitated, chalky white opaque lesion along the pits and fissures. Photograph reproduced with permission of John Wiley & Sons, Hoboken, N.J., from Fejerskov and colleagues.<sup>13</sup>

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Radiographs were obtained at this visit and there are no occlusal or interproximal lesions.

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