



Q/What is the optimal frequency for dental checkups for children and adults?

EVIDENCE-BASED ANSWER

A | **IT IS UNCLEAR**, but studies suggest that it should be based largely on individual risk. The American Academy of Pediatric Dentistry recommends a 6-month interval for preventive dental visits (strength of recommendation [SOR]: **C**, expert opinion), but a 24-month interval does not result in an increased incidence of dental caries in healthy children and young adults or increased incidence of gingivitis

in healthy adults (SOR: **B**, a single randomized controlled trial [RCT]). In adults with risk factors (eg, smoking or diabetes), visits at 6-month intervals are associated with a lower incidence of tooth loss (SOR: **C**, a retrospective cohort study). Children with risk factors (eg, caries) may benefit from a first dental visit by age 3 years (SOR: **C**, a retrospective cohort study).

Evidence summary

A systematic review featured a single RCT (n=185) comparing the effect of a 12-month vs 24-month interval between dental visits on dental caries in low-risk 3- to 5-year-old children with primary teeth and young adults, ages 16 to 20 years, with permanent teeth.¹ The outcomes of caries (ie, decayed, missing, filled surfaces increment) between the 12- and 24-month visits both in younger children (mean difference [MD]= -0.90; 95% confidence interval [CI], -1.96 to 0.16) and young adults (MD= -0.86; 95% CI, -1.75 to 0.03) did not differ.

Gingivitis: Not an issue when visits were delayed in healthy adults

Another systematic review (3 RCTs; N=836) evaluated the benefits associated with scaling and polishing in the prevention of gingivitis (primary outcome measure).² One RCT (n=207) compared scaling and polishing at 6- and 12-month intervals to no treatment for 24 months in adults with healthy dental histories. There was no difference in the

percentage of index teeth with bleeding in the 6-month or 12-month treatment groups compared to the group that received no treatment for 24 months (MD= -2%; 95% CI, -10% to 6% and MD= -1%; 95% CI, -9% to 7%, respectively).

2 visits/year prevents tooth loss in high-risk patients

A retrospective cohort study (N=5117) using 16 years of data evaluated the association between one or 2 preventive dental visits per year and tooth extraction events in adults at low risk and those at high risk for progressive periodontitis.³ Those at high risk had at least one of the following risk factors: smoking, diabetes, or interleukin-1 genotype. Low-risk patients had no difference in tooth loss with one visit compared to 2 visits annually (absolute risk reduction [ARR]=2.6%; 95% CI, 0.5%-5.8%; P=.092); however, high-risk patients had fewer events with 2 annual visits (number needed to treat [NNT]=19; ARR 5.2%; 95% CI, 1.8%-8.4%; P=.002).

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Visits before age 3 likely benefit only those at high risk

A systematic review of 4 retrospective cohort studies (N=77,291) analyzed the impact of early preventive dental visits (EPDV) on the frequency of future preventive and non-preventive dental visits and related expenditures using data from insurance claims and a kindergarten state dental registry.⁴ One study (n=11,394) used dental disease status at kindergarten (defined as the count of decayed, missing [molar teeth only], and filled primary teeth) as an outcome measure. Children who received EPDV before age 24 months had a comparable number of caries to those who had EPDV at 24 to 36 months. The authors concluded that EPDV before age 3 years is likely to benefit only children at high risk, and that evidence for a first dental visit by age one year is weak.

Recommendations

The National Institute for Health and Care Excellence recommends preventive dental visit intervals based on individual risk (12 months as the longest interval under age 18 years and 24 months as the longest interval for those 18 years and older at low risk).⁵ The American Dental Association recommends preventive dental visits at intervals determined by

individual risk.⁶ The American Academy of Pediatric Dentistry recommends a first exam by age one year and preventive dental visits every 6 months through adolescence or as indicated by individual risk.⁷ The US Preventive Services Task Force states there is insufficient evidence to recommend routine dental screening by primary care physicians in children up to age 5 years.⁸

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References

1. Riley P, Worthington HV, Clarkson JE, et al. Recall intervals for oral health in primary care patients. *Cochrane Database Syst Rev.* 2013;12:CD004346.
2. Worthington HV, Clarkson JE, Bryan G, et al. Routine scale and polish for periodontal health in adults. *Cochrane Database Syst Rev.* 2013;11:CD004625.
3. Giannobile WV, Braun TM, Caplis AK, et al. Patient stratification for preventive care in dentistry. *J Dent Res.* 2013;92:694-701.
4. Bhaskar V, McGraw KA, Divaris K. The importance of preventive dental visits from a young age: systematic review and current perspectives. *Clin Cosmetic Investig Dent.* 2014;6:21-27.
5. National Institute for Health and Care Excellence. Dental checks: intervals between oral health reviews. Available at: <https://www.nice.org.uk/guidance/cg19>. Accessed March 22, 2016.
6. American Dental Association. American Dental Association Statement on Regular Dental Visits. 2013. Available at: <http://www.ada.org/en/press-room/news-releases/2013-archive/june/american-dental-association-statement-on-regular-dental-visits>. Accessed March 22, 2016.
7. American Academy of Pediatric Dentistry. Guideline on periodicity of examination, preventive dental services, anticipatory guidance/counseling, and oral treatment for infants, children and adolescents. *Pediatr Dent.* 2013;35:E148-E156.
8. Moyer VA; US Preventive Services Task Force. Prevention of dental caries in children from birth through age 5 years: US Preventive Services Task Force recommendation statement. *Pediatrics.* 2014;133:1102-1111.

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The National Institute for Health and Care Excellence recommends preventive dental visit intervals based on individual risk.

NEW

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