

IN BRIEF

- The practice of dentistry demands good eyesight.
- The eyes of the dentist should be tested every two years from the age of 40 onwards.
- The use of magnification is perceived by its users to improve working posture and optimise clinical results.
- Deterioration in near vision may be overcome by using magnification.
- Eye protection should be routinely adopted by all dentists when using rotary cutting instruments or scaling. This includes those whose vision is corrected by glasses for they do not confer sufficient protection from flying debris.

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Eye care habits of UK dentists

Eye care habits of dentists registered in the United Kingdom **R. G. Chadwick,¹ M. Alatsaris² and M. Ranka³**

ABSTRACT

Objective

To determine the current eyecare behaviour of dentists and compare this against published standards concerning frequency of sight test intervals and eye protection.

Design

Postal questionnaire.

Subjects and methods

Four hundred dentists were selected at random for inclusion in the study from the UK 2004 Dentists Register. They were invited to complete a questionnaire that ascertained their gender and age, current eyesight status and method of correction, elapsed time interval since their last eyesight test and reason for attendance. In addition, the use and power of magnification was sought along with the adoption of protective eyewear. Responses were coded and placed in a relational database to facilitate interrogation and subsequent statistical analysis.

Results

The questionnaire return rate was 63% (247 and allowing for the seven questionnaires returned marked unknown at this address). Of these 158 were males and 81 female. The majority worked in general dental practice. Those with known eyesight deficiencies were statistically more likely ($p < 0.01$) to attend for routine eye examination. Sixteen percent of respondents failed to attend for routine eye examination at least every two years. The mean age of those who had detected a change in their eyesight and sought examination was 43.59 (SD = 10.57) for males and 39.07 years (SD = 9.41) for females. This mirrored closely the mean age when the use of magnification was adopted (males = 42.39 (10.30), females = 40.33 (10.55)). The use of magnification was not universally adopted. Eye protection compliance was as low as 57% when using laboratory cutting equipment.

Conclusions

Although compliance with accepted recommendations for biannual eyesight testing was higher than that for the general population, not all dentists complied. The adoption of protective eyewear was patchy and exposed dentists to unnecessary risk.

EDITOR'S SUMMARY

Our eyesight is often something that, when working well, we take for granted. Dentistry as a profession is necessarily demanding on the eyes and involves procedures and equipment that could potentially damage them, but how often does eye care cross the mind during our daily routine? This paper by Chadwick *et al.* set out to investigate this question.

Eye care in dentistry falls into two main areas: regular testing to ensure that eyesight is good enough to practice whatever branch of dentistry the dentist has chosen, and protection of the eyes during procedures that could potentially harm them. It has been suggested that dentists should have their eyes tested at least every two years until the age of 50 (and more frequently thereafter) and most dentists in this study had complied with this. More worrying was the finding that the use of eye protection when using apparatus such as handpieces, scalers and laboratory cutting equipment was not universal. In the worst case, 43% of community dentist respondents stated that they did not always use eye protection when using cutting equipment, although the small sample size may have been partly responsible. The wider implications are still valid, however. An eye injury could potentially end a dentist's career and it is a simple act to put on a pair of safety glasses before carrying out a risky procedure. The fact that a significant number do not routinely do so is concerning.

As with anything that is taken for granted, it is often not until we are reminded of the risks that we begin to think about the consequences if our eyesight was damaged. This paper acts as such a reminder and all practitioners should take note and consider their eye care habits afresh. Since reminders from opticians, for example, can encourage dentists to get their eyes checked, a programme of eye care promotion needs to be considered by the dental and wider healthcare communities. It may be that regular reminders are all it takes to reduce the number of dentists needlessly putting their eyes at risk.

The full paper can be accessed from the *BDJ* website (www.bdj.co.uk), under 'Research' in the table of contents for Volume 203 issue 4.

Rowena Milan,
Journal Editor

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FULL PAPER DETAILS

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AUTHOR QUESTIONS AND ANSWERS**1. Why did you undertake this research?**

In 1999 the principal author undertook a small-scale study of the eyecare habits of dental students. This indicated a reluctance of the students to attend for routine eye testing. The purpose of the present work was to determine the current eyecare behaviour of dentists and to compare this against both previous findings and published standards concerning the frequency of sight test intervals and use of eye protection. In addition, we wished to gain information on the strategies dentists adopted to address the inevitable deterioration in eye accommodation that occurs with increasing age. We particularly wished to raise awareness of the use of protective eyewear even if the dentist wore prescription glasses routinely, for these do not confer adequate protection from flying debris. As the work of the dentist is very demanding upon the eyes it is folly to ignore their care.

2. What would you like to do next in this area to follow on from this work?

The work demonstrated better compliance with accepted recommendations for biannual eyesight testing than the general population, although not all dentists complied. The adoption of protective eyewear was patchy, exposing dentists to unnecessary risk. In light of our findings and recommendations we intend to repeat the study to see if compliance levels have improved and to monitor the uptake of tests of eye accommodation and uptake of corrective laser surgery.

COMMENT

As in other procedural specialties in health, good eyesight is essential in the practice of dentistry. As part of maintaining eyesight, dentists should ensure that they present for periodic eye examination to screen for any abnormality in visual acuity, accommodation, yellow hue discrimination, or intraocular eye pressure. Current Association of Optometrists guidelines recommend that the minimum interval between sight tests is two years, or more frequently in those aged 70 years and over and where indicated by underlying pathology, such as deteriorating short- or long-sightedness or glaucoma. Part of preventive care of eyesight for dentists is also the use of protective eye wear during dental procedures, as dentists' eyes are potentially exposed a variety of hazards including trauma, chemical agents, infectious agents, and radiation, particularly from lasers and ultraviolet light sources.

The present study surveyed a random sample of 400 dentists in the United Kingdom taken from the 2004 UK Register of Dentists. They examined issues such as adoption of preventive eye care practices and use of eye protection by sending a postal questionnaire. Even though the response rate was respectable (63%), the number of respondents was relatively small (247); hence the results should be interpreted cautiously. Nonetheless, UK dentists should take note that just over two-thirds of their colleagues reported abnormalities in their eyesight and that change in eyesight requiring magnification impacted on dentists at a mean age of 42.4 years for males and 40.3 years for females.

Fortunately, over 80% of dentists reported that they were seeking eye checks at recommended intervals. Perhaps of more concern was that the adoption of eye protection by dentists is not as yet universal and in the extreme example, 26% of dentists did not adopt eye protection when using laboratory cutting equipment. Additional efforts need to be directed towards maintaining the health of dentists in various aspects, and reminders from health care professions, such as opticians, appear to play an important role. The use of appropriate protective eye wear during dental procedures should continue to be promoted. This study also provides evidence that may contribute towards a review of the age recommendations for intervals for periodic eye examination.

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