

**Objectives.** The present study was set up to explore (1) a potential association between a person's caries risk profile and the presence or absence of root-filled teeth, and (2) the caries risk in endodontically treated teeth.

**Study design.** Two hundred Saudi adults were divided into an Endodontic Group (EG; n = 100), with a minimum of 2 root-filled teeth, and a Non-Endodontic Group (NEG; n = 100), without any root filling. Various caries risk factors were evaluated using a computer-based program (Cariogram). Clinical and radiographic examinations were also carried out.

**Results.** Cariogram findings showed that "the chance of avoiding caries" was low in both groups (35% in EG and 37% in NEG), and there was no statistically significant difference between the 2 groups. However, DMFS, recurrent caries, and mutans streptococcus count in saliva were significantly higher in the EG compared to the NEG ( $P < 0.05$ ). When teeth in the EG were evaluated independently, the proportion of recurrent caries to the total fillings associated with endodontically treated teeth was 31.6% versus 19.2% in the non-endodontically treated teeth.

**Conclusions.** Data were not in favor of an association between caries risk profile and presence of root-filled teeth, but supported the notion that root-filling procedures might make the tooth more susceptible to caries. (**Oral Surg Oral Med Oral Pathol Oral Radiol Endod 2010;110:259-264**)