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## Clinical Queries

The Editors would welcome "Clinical Queries" on dental problems. Opinions which will not necessarily reflect the views of the Editorial Board, will be expressed by a panel of experts.

*Silver nitrate*

### Query

In view of recent findings regarding the possible injurious effects of silver nitrate on pulpal tissues (Ref: Englander et al 1958) would the Committee recommend suspension of all topical and other forms of silver nitrate application to vital teeth?

### Experts Reply

The recent findings regarding the injurious effects of silver nitrate on pulpal tissue have, up to a point, confirmed the long held and firm belief of the writer that the application of strong caustic chemicals to living dentinal and pulp tissue was an improper procedure.

The idea that silver nitrate was self-limiting by coagulation has now been disproved so it appears progressively to penetrate and damage the fibrils and odontoblasts of the sound dentine which is the very area it is desired to keep intact.

Under carious dentine, it does not penetrate hypercalcified areas which it was intended to sterilise against recurrent attack by micro organisms and its effect on the pulp is clearly damaging. This is of special importance when it is remembered that silver nitrate is frequently applied to sterilise a thin layer over a near exposure.

However, the damage in the pulp was localised and the remainder of the pulp appeared normal up to 32 days after application. We must await confirmation by further tests of longer periods of application, that this localisation is maintained and the neighbouring pulp unaffected.

Generally, these findings are not sufficient to recommend the suspension of all silver nitrate applications to vital teeth but they do indicate that the amount applied must be minimal and should be carefully localised to the area it is intended to treat.