

# TECHNIQUE CLINIC

## Prevention of Gagging with a Modified Krol's Method

**W**hen gagging occurs during impression taking—as can happen with hypersensitive or very young patients—it can strain the doctor/patient relationship and impede diagnosis and treatment planning.

The gag reflex is stimulated by nerve endings in the soft palate, pharynx, and pharyngeal area of the tongue. Pharmacotherapeutics such as sedatives, antihistamines, antinauseants, and topical anesthetics have been suggested to inhibit the gag reflex,<sup>1</sup> but these have side effects and can make the patient apprehensive. Minimum-flow impression material<sup>2</sup> is more difficult to use and more expensive than alginate. A conversational approach sometimes reduces gagging,<sup>3</sup> but is not effective in all cases.

I use a simple, modified Krol's method to prevent gagging. Krol's basic principle is that gagging is reduced in direct proportion to the reduction of awareness of the stimulus.<sup>4</sup> Thus, if the patient's attention is diverted from the impression, gagging can be controlled.

### Procedure

Ask the patient to raise his or her foot from the base of the chair,<sup>5</sup> and to raise a hand when

it becomes impossible to keep the foot suspended (A). As the patient becomes fatigued, more conscious effort is required to keep the foot raised. Before long, the patient will have difficulty carrying on a conversation. At this time, tray insertion should be attempted (B). When the patient raises a hand, ask him or her to change the foot that is raised. Repeat this procedure until the alginate sets.

If the gag reflex is deeply ingrained, you may have to ask the patient to raise both the foot and the head during tray insertion (C). Once the technique has been successful, however, you will find the patient more and more cooperative at subsequent appointments. This method has been in clinical use for more than three years with no complications or failures.

### REFERENCES

1. Schole, M.L.: Management of the gagging patient, *J. Prosth. Dent.* 9:578-583, 1959.
2. Ansari, I.H.: Management for maxillary removable partial denture patients who gag, *J. Prosth. Dent.* 72:448, 1994.
3. Ruderman, H.J.: Office efficiency, *J. Clin. Orthod.* 5:228-230, 1971.
4. Krol, A.J.: A new approach to the gagging problem, *J. Prosth. Dent.* 13:611-616, 1963.
5. Mayerson, M. and White, L.W.: Management & Marketing: A new paradigm of motivation, *J. Clin. Orthod.* 30:337-341, 1996.



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