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In reply:—Drs. Brodsky and Cohen, in their letter commenting on the Special Article by Buring *et al.*,¹ suggest that failure to consider the National Dental Study² in their evaluation may have prevented Buring *et al.*¹ from reaching a definitive conclusion, *i.e.*, that trace concentrations of nitrous oxide are hazardous. In a similar vein, they comment that the editorial³ we authored accompanying Buring *et al.*¹ also should have considered the National Dental Study² as well as relevant animal studies examining nitrous oxide administration during pregnancy.

Perhaps some explanations are in order. Buring *et al.*¹ did not consider the National Dental Study² because their charge from ASA was to evaluate the hazards of operating room exposure to waste anesthetic gases. Exposure of dentists and their chairside assistants to waste anesthetic agents occurs under different circumstances and is of greater magnitude than that of operating room personnel. Therefore, extrapolation of results from the dental population to operating room workers might not be appropriate. By not including the dental study, Buring *et al.*¹ wisely avoided one more confounding variable in a situation that has been plagued by such problems.

We also question whether the National Dental Study² can be considered more definitive than previous epidemiologic surveys of operating room workers. Without doubt, its overall design, response rate, and statistical approach are superior to that of the vast majority of previous surveys. However, in our opinion it shares some of the same fatal flaws of the other surveys, *i.e.*, lack of medical verification of questionnaire data; generally small differences in both absolute and relative risk, which, therefore, could have been due to misclassification or to response bias; and the possibility that differences may have been due to biased recall of past events. Any one or a combination of these factors could have led to the differences Cohen, Brodsky, and their co-workers reported in the National Dental Study.²

The omission of animal studies in the editorial was a deliberate one. Buring *et al.*¹ dealt only with human studies, and we restricted our discussion to humans as well. However, the overwhelming majority of animal studies performed with nitrous oxide in the waste gas range (25-500 ppm) have been negative. We are surprised that Brodsky and Cohen comment otherwise. It would require too many pages of this Journal to debate that point.

In summary, we believe that Buring *et al.*¹ and, hopefully, our editorial³ have made useful contributions toward putting to rest the issue of the putative hazards of operating room employment. Buring *et al.*¹ point out the areas of increased risk (spontaneous abortion and liver disease) and their magnitude (small). They also note that these findings could have been due to response and/or recall bias and, in fact, they point out that they are not necessarily associated with exposure to waste anesthetic gases. They may be a consequence of operating room employment. Our editorial emphasizes some of the pitfalls associated with the conduct of epidemiologic surveys, particularly those that have dealt with the waste anesthetic gas issue. Perhaps the debate will end when the 10-year United Kingdom prospective study of the health of women physicians and dentists, now in its eighth year, is completed.

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Can Traditional Intubation Be Modified?

To the Editor:—We would like to introduce a new method that markedly reduces endotracheal intubation time in half by altering the habitual sequence of oral intubation.¹⁻⁴ The entire technique is similar to the sequence of nasotracheal intubation where the insertion of the endotracheal tube precedes laryngoscopy.

By "intubation time," we mean that period from the introduction of laryngoscope into the mouth to passage of endotracheal tube between the cords.

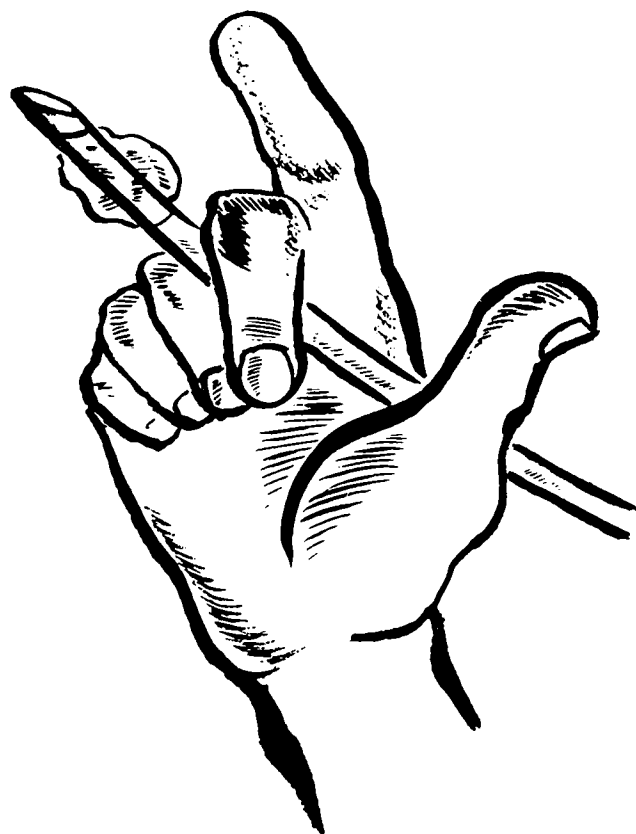


FIG. 1. Method of holding an endotracheal tube before intubation.

We propose that the endotracheal tube held in the right hand (for the right-handed anesthesiologist) like a "chopstick," so that the thumb and pointer finger are free to open the mouth (fig. 1).

Then, after the partial insertion of the laryngoscope and before visualization of the vocal cords, the endotracheal tube is blindly introduced along the inner wall of the right cheek 10-13 cm in the direction of the epiglottis. The laryngoscope blade is advanced further, the epiglottis is lifted, and, at this time, the tip of the endotracheal tube is already a few centimeters apart from the cords, and endotracheal intubation is accomplished easily.

The described technique is time-saving, eliminates the need for an assistant, and is especially beneficial in cases of emergency intubation or for patients with compromised cardiovascular status.

This technique has been used successfully in our institution, in normal and extenuating situations, more than 100 times in the last 8 months. The average documented time for this approach so far is 6 ± 1.5 s versus the traditional 12 ± 2 s. In our experience thus far, we have not incurred any complications or failures.

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