

### An Endotracheal Tube Fixation Device Constructed from Discarded Oxygen Tubing and Umbilical Tape

*To the Editor:*—During the course of clinical practice, an occasional patient presents as a challenge with respect to proper fixation of the endotracheal tube. With a section of discarded oxygen tubing and a length of standard umbilical tape, one can prepare devices suitable for fixation

of the endotracheal tube while avoiding the use of tape or adhesives (fig. 1).

The endotracheal tube tie-down device is useful for use in the patient allergic to adhesives, for the patient with an inconvenient abundance of facial hair, and for the patient with skin conditions that might be aggravated by direct contact with adhesives or adhesive tape. This endotracheal tie-down is comfortable to the patient and might prove useful to the practitioner for use on the intubated patient in the operating room or intensive care setting.

This device is prepared in advance of anticipated use as outlined. A single strand of umbilical tape is passed relatively easily down the oxygen tube lumen. After successful passage, the end is tied to the middle of a 60-inch length of umbilical tape. The single umbilical tape strand then is pulled through, yielding the double-stranded product. The double strand of umbilical tape then is knotted at both ends of the oxygen tube, thereby preventing the inadvertent removal of the tape from the tubing. An adult with a large head requires a tie-down prepared from oxygen tubing 17–19 inches in length, a smaller adult remains at 14–16-inch length, and a child requires a 10–12-inch length.

The oxygen tubing is placed behind the nape of the neck, and the umbilical tape is tied snugly around the endotracheal tube shaft. Once the physician is satisfied with the proper placement of the tube and once assured of the security of the knot, the ends are trimmed as desired. The oxygen tubing is soft and comfortable to the patient and will not cut or abrade the skin, as might a cloth strip or naked tracheal tape.

DAVID STEPHEN KLEIN, M.D.  
Department of Anesthesiology  
Duke University Medical Center  
Durham, North Carolina 27710

(Accepted for publication June 21, 1983.)

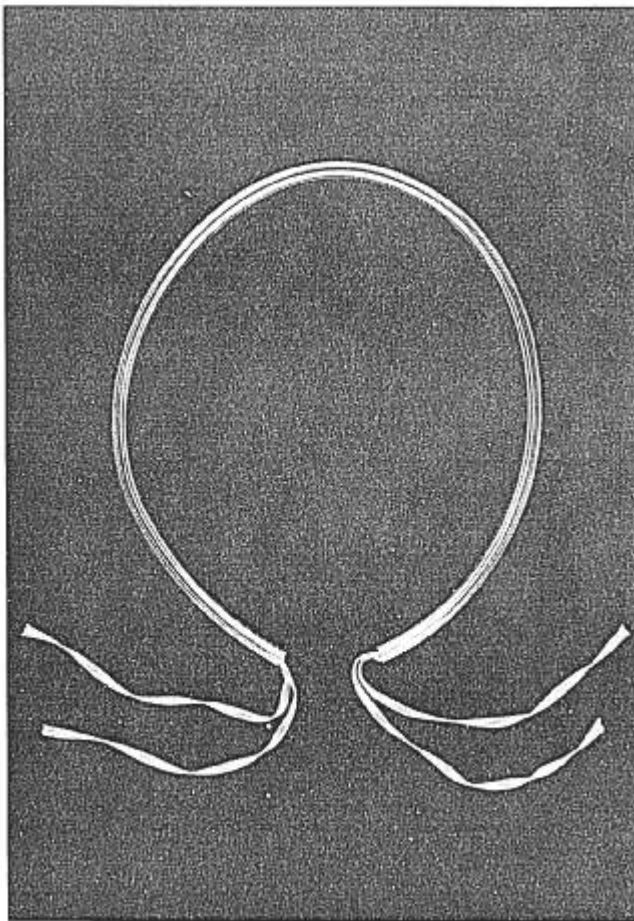


FIG. 1. Endotracheal tube fixation device.

### Epinephrine–Halothane Interaction in Children *versus* Adults

*To the Editor:*—Dr. Karl *et al.* reported on epinephrine–halothane interactions in children,<sup>1</sup> concluding that “children tolerate higher doses of subcutaneous epinephrine than adults during halothane anesthesia” and

that “at least 10  $\mu\text{g}/\text{kg}$  of epinephrine infiltration may be used safely in normocarbic and hypocarbic pediatric patients without congenital heart disease.” Although both of these statements may be true, they should be qualified.