

## **MAKE YOUR OWN ENDOTRACHEAL TUBE INTRODUCERS.**

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An endotracheal tube introducer made of thick copper wire can be used to stiffen the tube during intubation. This may be of help during difficult intubations. The introducer has a loop at one end to hold it with and a rounded silver tip at the other end which prevents

tissue damage during use. The loop also prevents the introducer from accidentally disappearing down the endotracheal tube. An introducer can be easily made as described below.

A piece of copper wire of a suitable diameter should be obtained from your hospital maintenance department or a local electrical repair shop. Use a thicker wire for adults and a thinner piece for children.

Cut a piece of the wire 5 centimeters longer than your longest endotracheal tube and bend one end of the wire into a loop big enough to pass your finger through. Using a piece of sandpaper round off the other end of the wire to make it smooth.

Although the introducer may be used in this basic form it is preferable if the tip is rounded off by putting on a silver atraumatic tip. This is done by holding the introducer with the loop facing upwards in a vice. Put some solder flux paste on the tip and heat it with a hot flame (for example a propane torch) until the flux turns to a clear colour. Apply the silver solder (use the type that jewelers use) to the tip of the wire so that it melts on to it. Allow it to form a tear drop shape then stop heating. Allow it to cool and then clean off the crusted flux and polish the silver tip until it is smooth. It is also advisable to solder the loop

closed in the correct position. When this type of introducer is used the tip should reach almost to the end of the endotracheal tube but never protrude beyond it. If the introducer is longer than the tube being used, bend the stem of the introducer to prevent it from going down too far.

An improved version of the introducer can be made which will fit most tubes. A tapered brass cylindrical block about 2.5 cm long is drilled so that the wire can slide through the middle. A thread is tapped for a small thumb screw at a right angle to the direction of the wire. When tightened the small thumb screw holds the block in position and makes the introducer adjustable to fit all lengths of endotracheal tubes. The block is tapered to make a good fit inside the endotracheal tube.

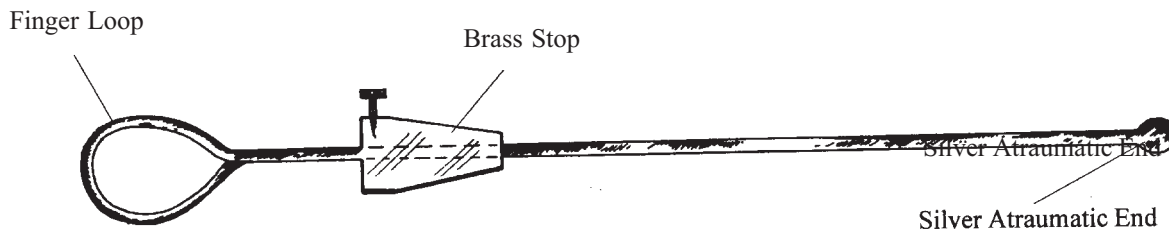


Figure 1. Endotracheal Introducer