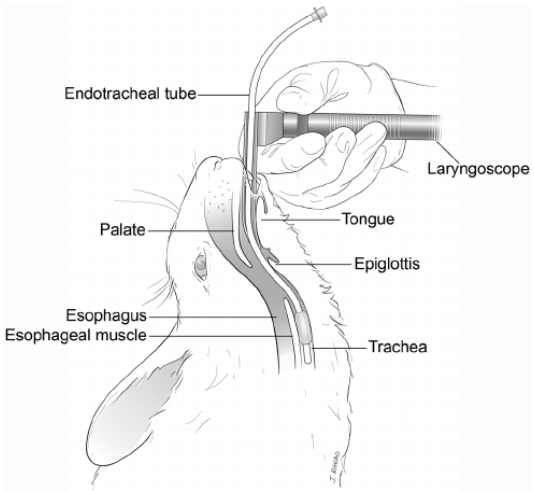
Reasons for intubation: 1) Enables provision of supplemental _____, 2) Protects the _____ _____ tract from foreign material (incl. fluids), 3) Allows controlled ____ provision with minimal _____ _____ (health and safety), 4) Enables the anaesthetist to perform intermittent _____ to assist lung perfusion and if needed during a _____ crisis. Prior to attempting intubation I will _____ the rabbit for 2-5 minutes. I could use _____ prior to attempting intubation, to prevent _____ (although NOT licensed for use in rabbits UK). Prior to intubation, I will _____ and _____ the ET tube. Rabbits are _____ _____ breathers and as such, the epiglottis often sits above the _____ palate. When restraining in sternal recumbency, it is important to extend the rabbit's head and neck forward to maintain an open airway during intubation. The two points the ET tube should sit between are the _____ and the _____. If a tube is placed to the correct 'depth' but there is still a length of tube outside the rabbit, this is called _____ _____. Ideally, I would _____ the tube but in reality, I could increase the _____ _____ _____ to combat the rebreathing. To check it is in place, I could hold _____ at the end of the tube to see if there is air movement, **OR** look at the portion of the tube I can see to check if there is _____ within the tube, **OR** I could hold a small dental _____ at the end of the tube to see if there is 'fogging' **OR** I could attach the tube to a _____ to see if a trace is produced **AND** I should _____ both lung fields to check the tube hasn't passed the _____ and entered one of the mainstem bronchi. Rabbits won't necessarily ____ when the ET tube enters the trachea. Complications: the rabbit oropharyngeal anatomy – presence of large incisors, long and narrow dental arcade, the hump at the base of the tongue (called the _____) and the acute angle between the mouth and the larynx, makes orotracheal intubation of rabbits technically difficult with a **HIGH** failure rate. It is unlikely you will want to intubate rabbits (orotracheal placement) when you are performing _____ procedures or when you are performing routine _____ as the tube will reduce oral access. Repeated attempts at ET intubation may cause traumatic damage to the larynx with resultant: laryngeal _____, haemorrhage, laryn_____ or even laryngeal _____. Blind intubation also carries the risk of _____ or cae_____ being pushed blindly into the trachea. Equipment: similar to the ET tubes we use in cats, we want to choose an _____ tube for 2 reasons 1) to prevent _____ to the tracheal mucosae AND the absence of a ____ means the internal diameter is as _____ as possible, thus reducing the _____ to air flow. For a 2.5kg rabbit the size of ET tube used is likely to be a _____ -> _____ mm. In large rabbits (over 5kg), a size _____ mm tube at least is likely to be used. Alternative method of intubation – naso-tracheal has the benefit of being used when performing procedures in the _____ but has the potential risk of introducing _____ in to the _____.



Thompson, K.L., Meier, T.R., and Scholz, J.A. (2017) Endotracheal Intubation of Rabbits Using a Polypropylene Guide Catheter, *Journal of Visualized Experiments*, November 2013 (129).

Reasons for intubation: 1) Enables provision of supplemental **OXYGEN**, 2) Protects the **LOWER** **RESPIRATORY** tract from foreign material (incl. fluids), 3) Allows controlled **GAS** provision with minimal **ENVIRONMENTAL** **CONTAMINATION** (health and safety), 4) Enables the anaesthetist to perform intermittent **IPPV** to assist lung perfusion and if needed during a **RESPIRATORY** crisis. Prior to attempting intubation, I will **PRE-OXYGENATE** the rabbit for 2-5 minutes. I could use **LIDOCAINE** prior to attempting intubation, to prevent **LARYNGOSPASM** (although NOT licensed for use in rabbits UK). Prior to intubation, I will **MEASURE** and **LUBRICATE** the ET tube. Rabbits are **OBLIGATE** **NASAL** breathers and as such, the epiglottis often sits above the **SOFT** palate. When restraining in sternal recumbency, it is important to extend the rabbit's head and neck forward to maintain an open airway during intubation. The two points the ET tube should sit between are the **INCISORS** and the **THORACIC INLET (POINT OF SHOULDER)**. If a tube is placed to the correct 'depth' but there is still a length of tube outside the rabbit, this is called **DEAD** **SPACE**. Ideally, I would **CUT** the tube but in reality, I could increase the **FRESH** **GAS** **FLOW** to combat the rebreathing. To check it is in place, I could hold **FUR/HAIR** at the end of the tube to see if there is air movement, **OR** look at the portion of the tube I can see to check if there is **CONDENSATION** within the tube, **OR** I could hold a small dental **MIRROR** at the end of the tube to see if there is 'fogging' **OR** I could attach the tube to a **CAPNOGRAPH** to see if a trace is produced **AND** I should **AUSCULTATE** both lung fields to check the tube hasn't passed the **BIFURCATION** and entered one of the mainstem bronchi. Rabbits won't necessarily **COUGH** when the ET tube enters the trachea. Complications: the rabbit oropharyngeal anatomy – presence of large incisors, long and narrow dental arcade, the hump at the base of the tongue (called the **TORUS**) and the acute angle between the mouth and the larynx, makes orotracheal intubation of rabbits technically difficult with a **HIGH** failure rate. It is unlikely you will want to intubate rabbits (orotracheal placement) when you are performing **SHORT** procedures or when you are performing routine **DENTALS** as the tube will reduce oral access. Repeated attempts at ET intubation may cause traumatic damage to the larynx with resultant: laryngeal **OEDEMA/SWELLING**, haemorrhage, **laryn**GOSPASM or even laryngeal **RUPTURE**. Blind intubation also carries the risk of **FOOD** or **cae**COTROPHS being pushed blindly into the trachea. Equipment: similar to the ET tubes we use in cats, we want to choose an **UN-CUFFED** tube for 2 reasons 1) to prevent **TRAUMA** to the tracheal mucosae AND the absence of a **CUFF** means the internal diameter is as **WIDE** as possible, thus reducing the **RESISTANCE** to air flow. For a 2.5kg rabbit the size of ET tube used is likely to be a **2.5** -> **3** mm. In large rabbits (over 5kg), a size **4** mm tube at least is likely to be used. Alternative method of intubation – naso-tracheal has the benefit of being used when performing procedures in the **MOUTH** but has the potential risk of introducing **PATHOGENS** into the **LUNGS**.