



"Ladies & gentlemen, this is your captain speaking.
If you look out the right side of the aircraft you will
notice flight 195 challenging us to a race.
I've turned the fasten your seat belt sign back on
because shit is about to get real."

SURGICAL AIRWAYS



Rob Bryant MD
Utah Emergency Physicians



@robjbryant | 3

**No. of surgical airways I
have performed:**

**No. of surgical airways I
have performed:**



**No. of surgical airways I
have performed:**



April, 2014









Elaine Bromiley



March 29, 2005

THE PLAN:

Indications

Anatomy

Percutaneous cric.

Open cric.

Cognitive hurdles

Races with scalpels

Cricothyrotomy indications:

CICV

(Can't Intubate, Can't Ventilate)

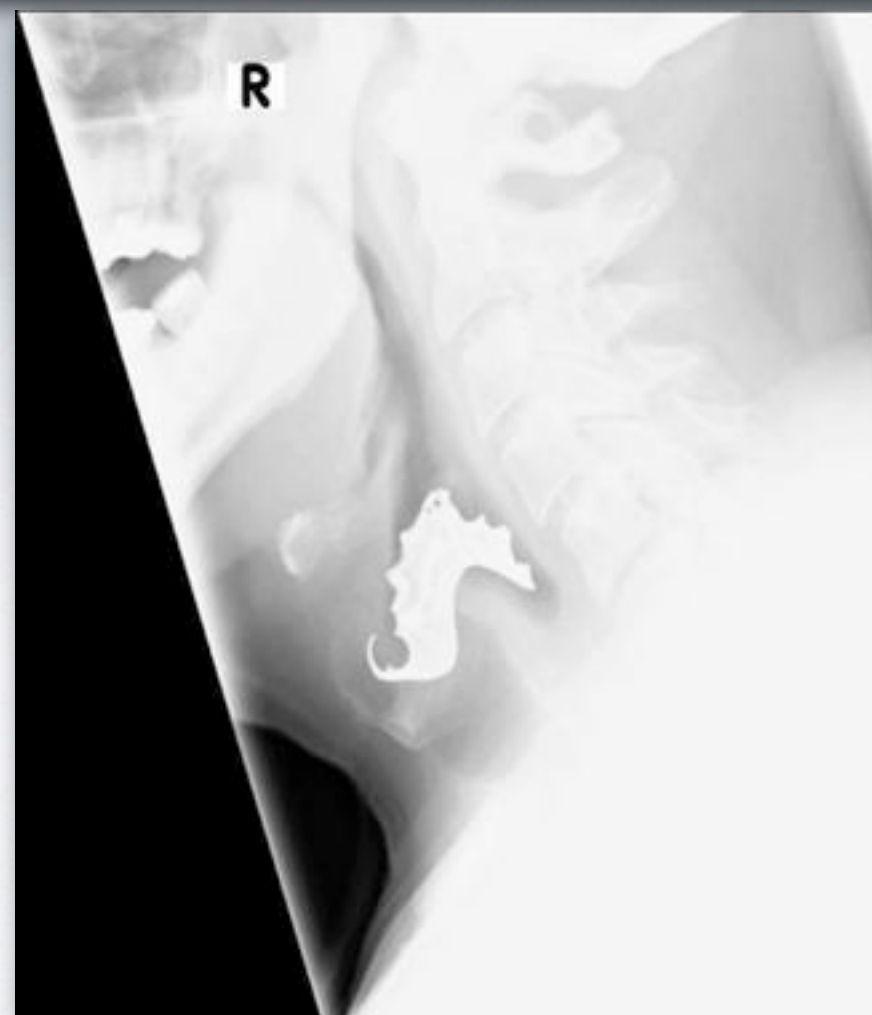
FAILED AIRWAY

CICV

Unpredicted Difficult Airway

Predicted Difficult Airway

Failure to Oxygenate



FAILED AIRWAY

‘Three attempts, (laryngoscope blade passes the teeth) with at least one attempt by the most experienced operator, without achieving cuffed tube in the trachea.’



FAIL

Induction
Muscle Relaxation

STC Failed Airway Algorithm

EMCrit Remix

Anesth Analg 2009;109:866

Laryngoscopy #1

Success

Failure

Laryngoscopy #2
+/- Bougie

Success

Failure

Laryngoscopy #3
Attending Only
+/- Bougie

Success

Failure

Intubating
SGA Placement

Good SpO₂

Failure

Surgical
Airway

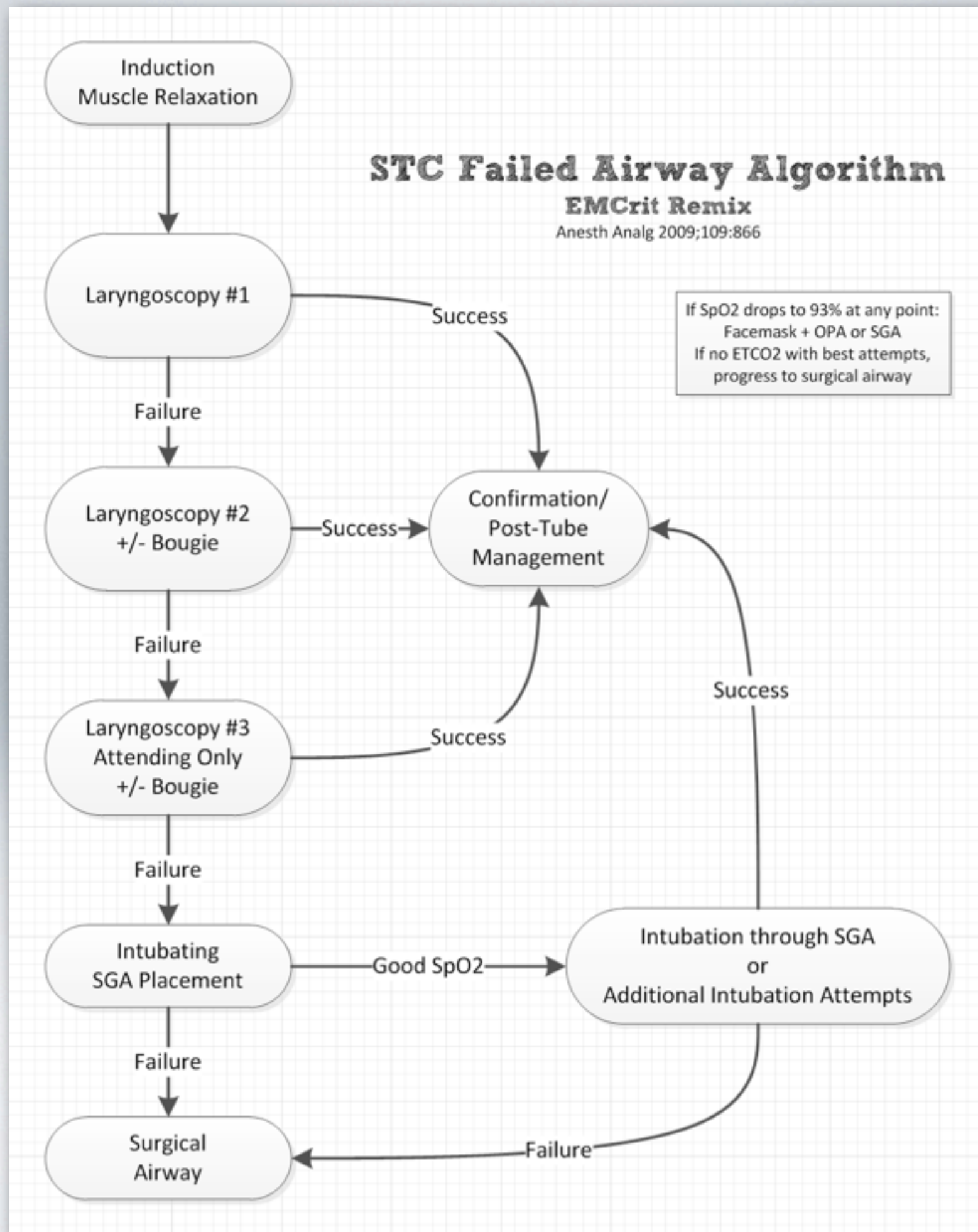
Confirmation/
Post-Tube
Management

If SpO₂ drops to 93% at any point:
Facemask + OPA or SGA
If no ETCO₂ with best attempts,
progress to surgical airway

Success

Intubation through SGA
or
Additional Intubation Attempts

Failure



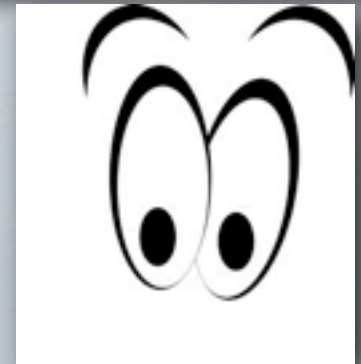
LOOK

LOOK

LOOK

LMA

LACERATION

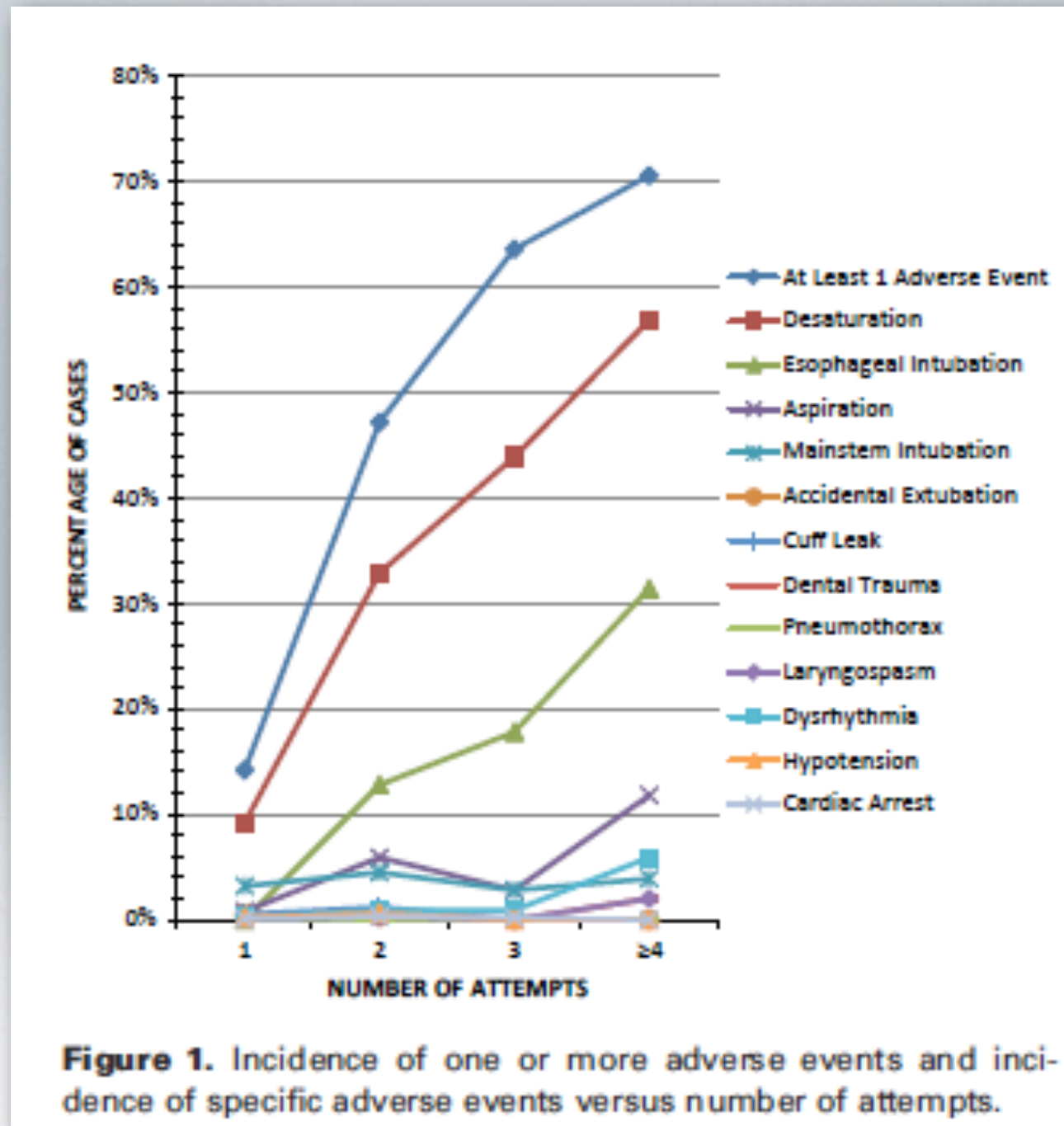


The Importance of First Pass Success When Performing Orotracheal Intubation in the Emergency Department

ACADEMIC EMERGENCY MEDICINE

2013; 20:71–78 John C. Sakles, MD et al.

1st pass, 14% adverse event rate



2nd pass, 47% adverse event rate

OXY-HEMO-COASTER:

88%

65%



**SAFE
OXYGENATION**

**CRITICAL
HYPOXEMIA**

**PRE LIT
PANEL**

INCIDENCE?

INCIDENCE

1:200

Emergency cricothyrotomy

– a systematic review

Scand J Trauma Resusc Emerg Med. 2013; 21: 43.

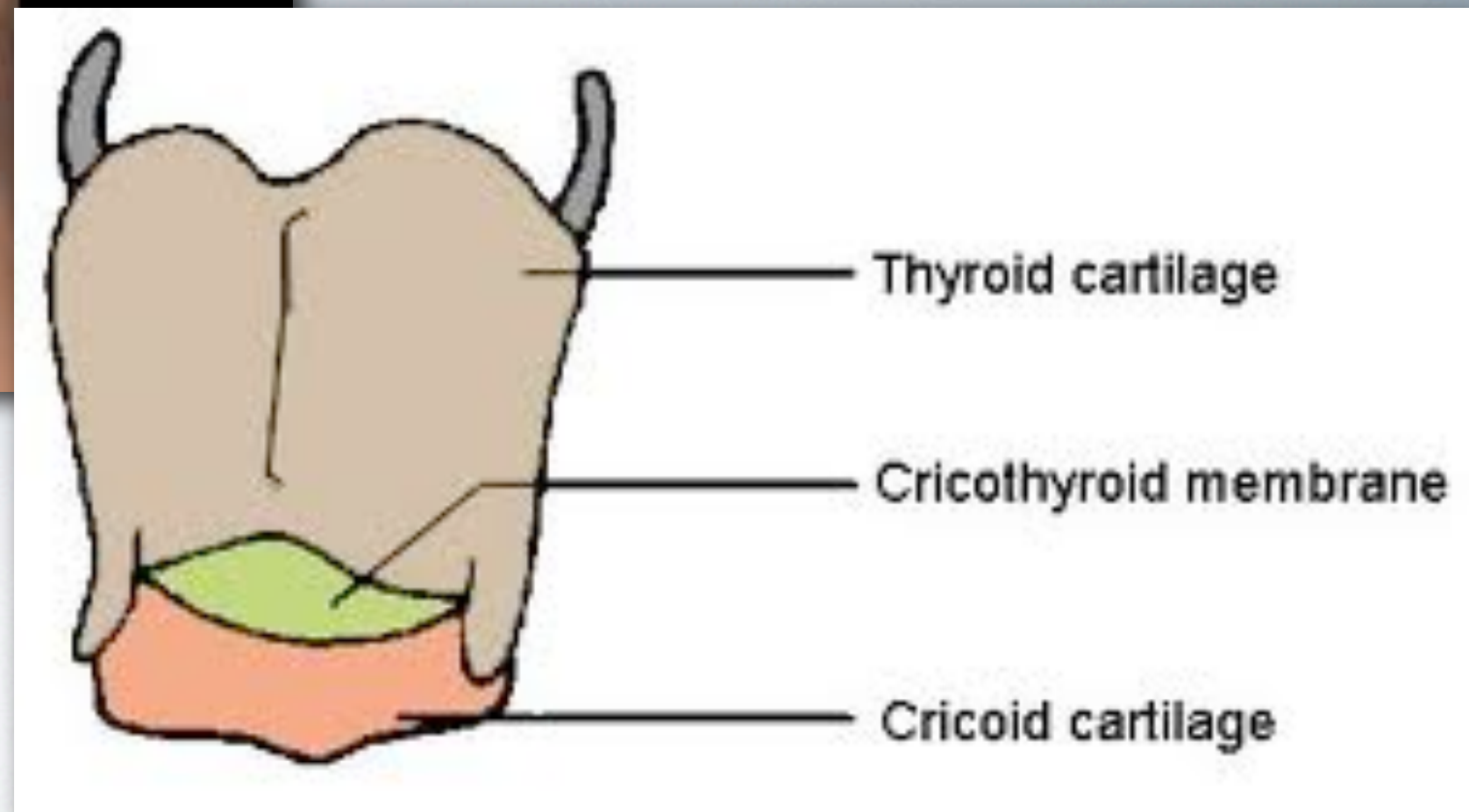
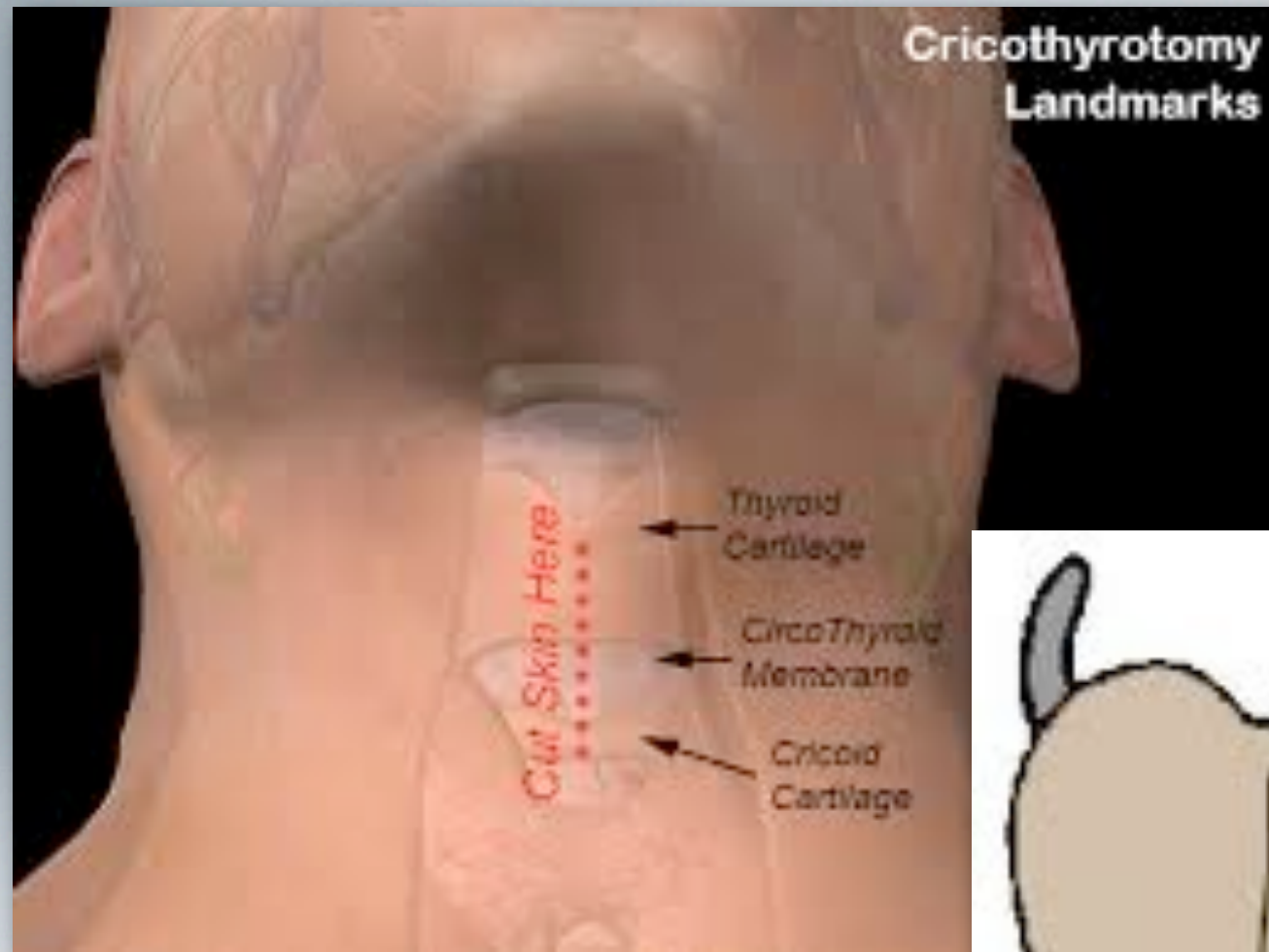
0 to 18.5%

1990's

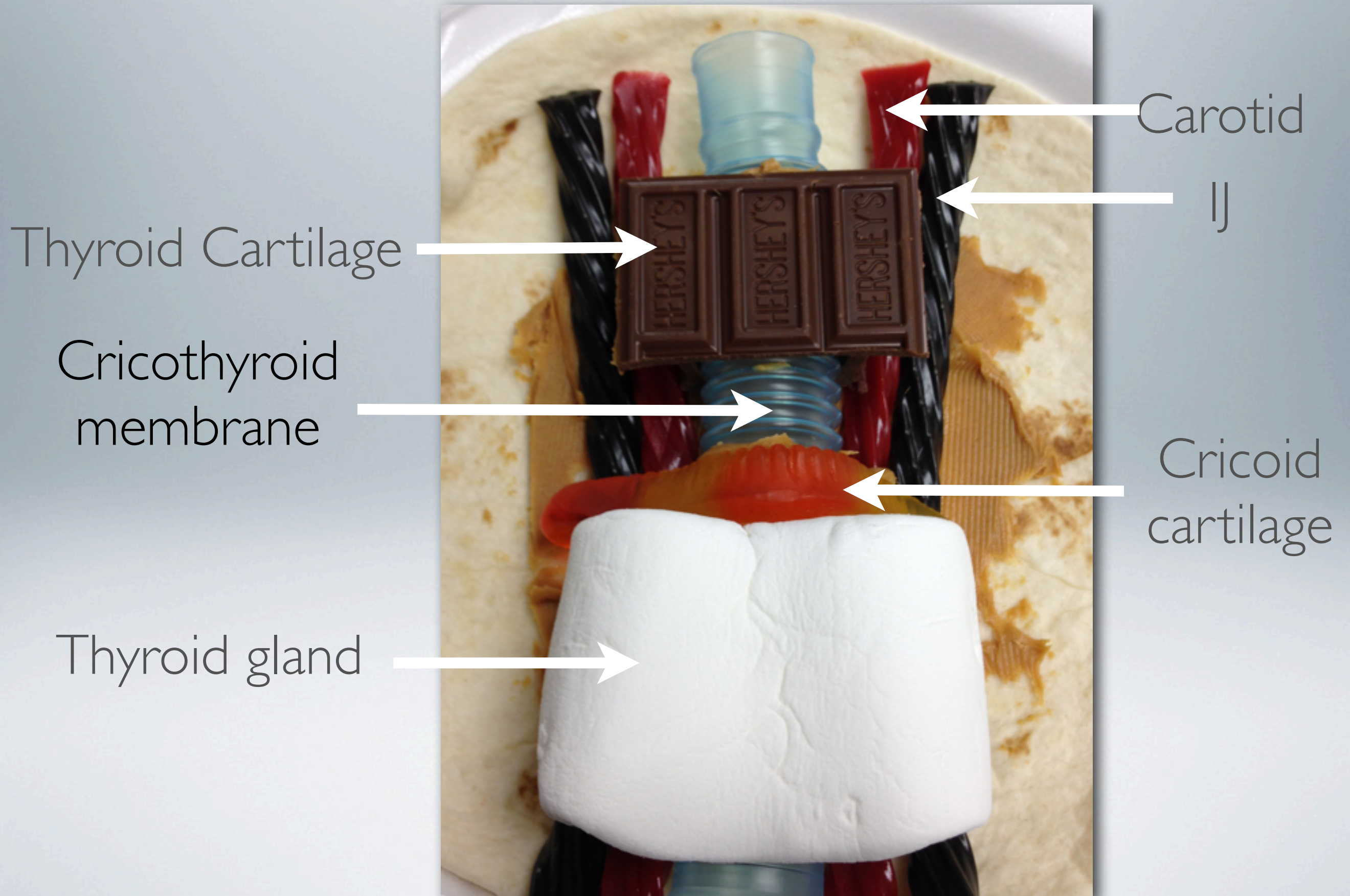
Pre-VL

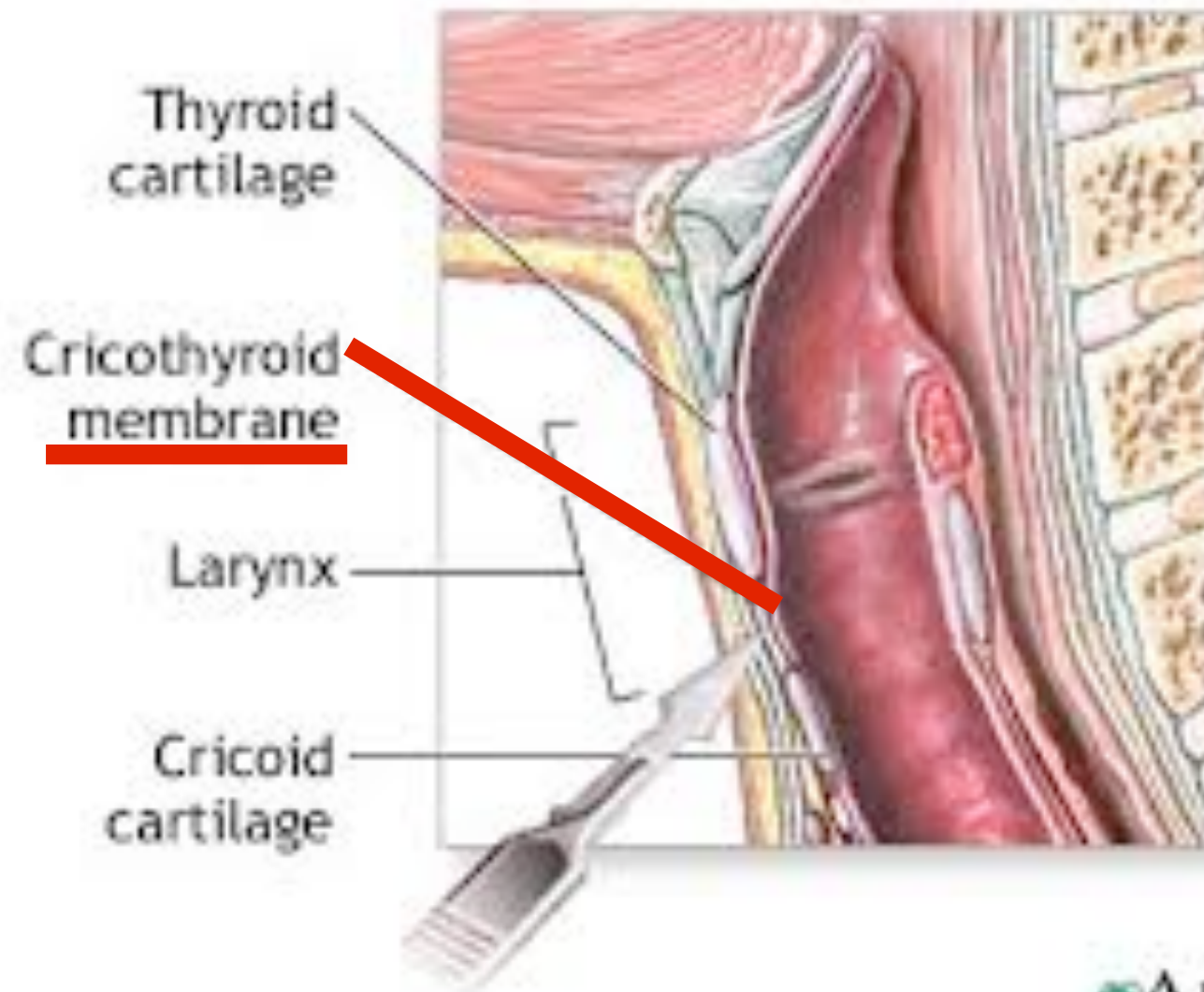
Higher incidence pre-hosp

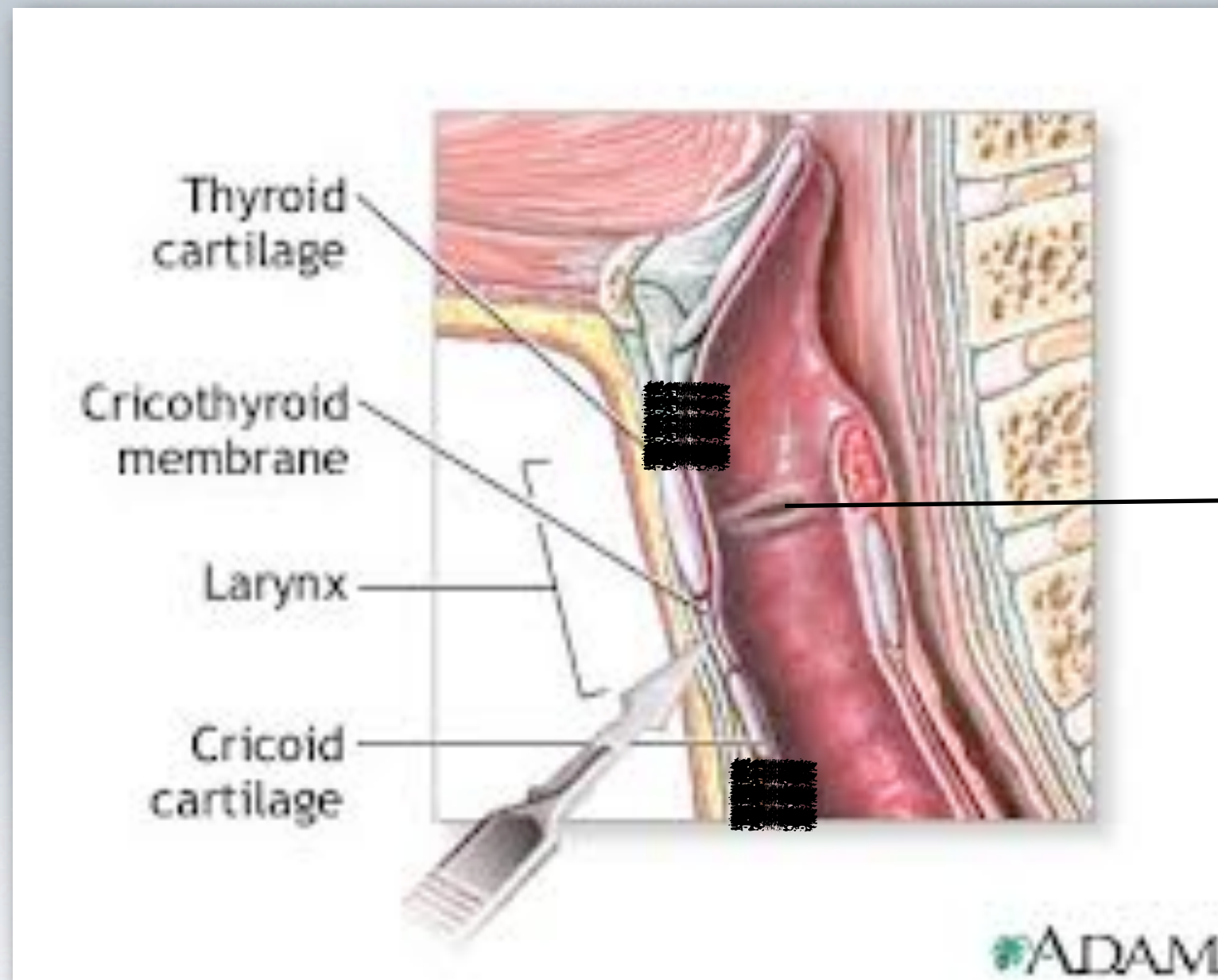
ANATOMY



ANATOMY







Vocal Cords

 = Problem areas







LARYNGEAL HANDSHAKE



PERCUTANEOUS CRICOTHYROTOMY

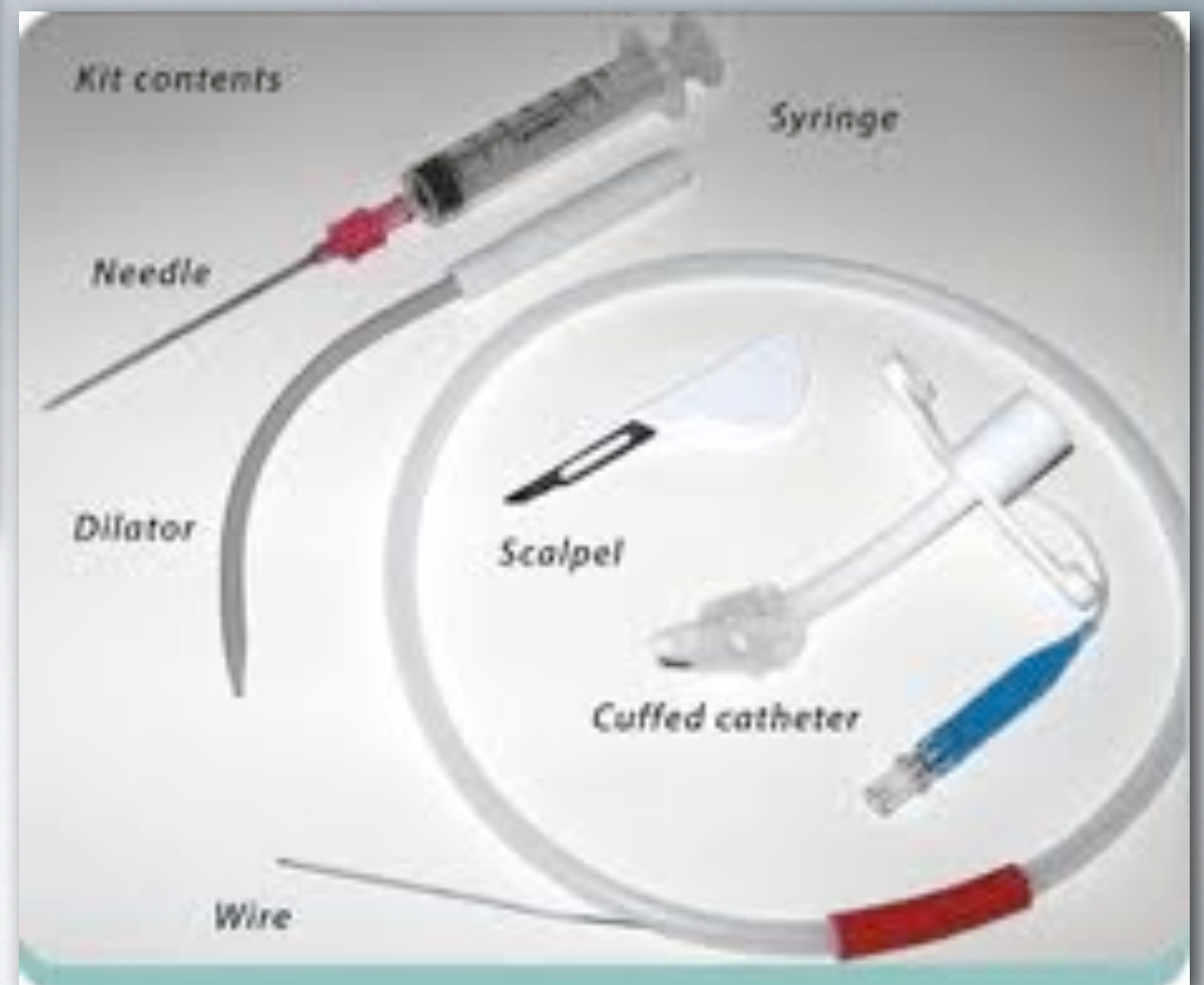


11 STEPS!!

PERCUTANEOUS CRICOTHYROTOMY



VIDEO:





OPEN / SURGICAL CRICOTHYROTOMY



Cricothyrotomy Landmarks

Cut Skin Here

Thyroid
Cartilage

Cricothyroid
Membrane

Cricoid
Cartilage

fpnotebook.com

THE SIGN OF THE CROSS



THE FIFTEEN MOST
POWERFUL WORDS IN THE
ENGLISH LANGUAGE

FR. FRANCIS DE SALES

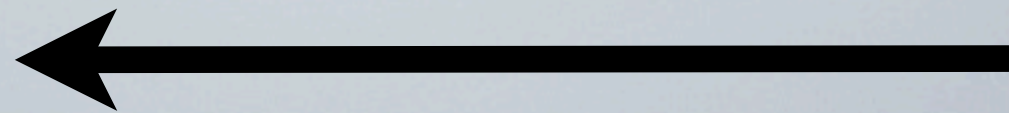


REMEMBER UNIVERSAL PRECAUTIONS!





NUCLEAR WAR ALERT POSTURE



DEFCON 1

DEFCON 2

DEFCON 3

DEFCON 4

DEFCON 5



Cricothyrotomy alert posture



**‘It’s not
thermonuclear war,
it’s a one inch
incision’**

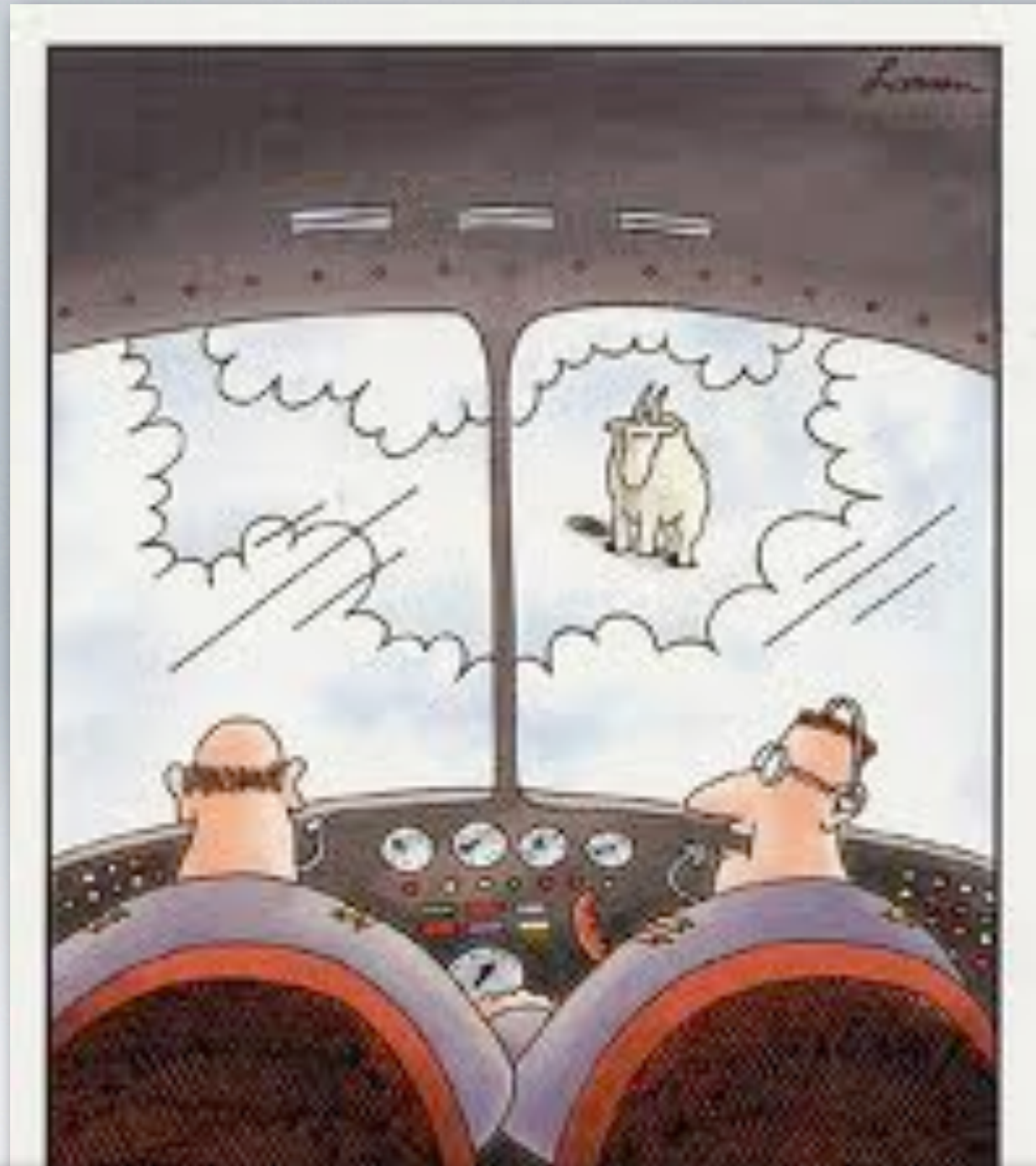
R Levitan MD.

**WOULD YOU
PREFER A HOLE IN
YOUR NECK,
OR 20 FEWER IQ
POINTS?**

HUMAN FACTORS ISSUES



GRADED ASSERTIVENESS



‘Say..., what’s a mountain goat doing way up here in a cloud bank?’

CHANGE YOUR MINDSET:

It's not

IF



It's

WHEN



CUT THE @#\$% THROAT!



WHAT ARE YOU WAITING
FOR?

OPTIMIZE PERI-INTUBATION
OXYGENATION

USE 2ND LARYNGOSCOPY AS
TRIGGER TO GET CRIC. STUFF
READY

BE ASSERTIVE

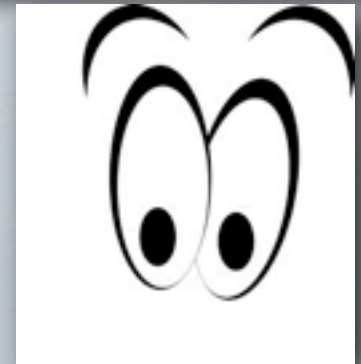
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LOOK

LOOK

LMA

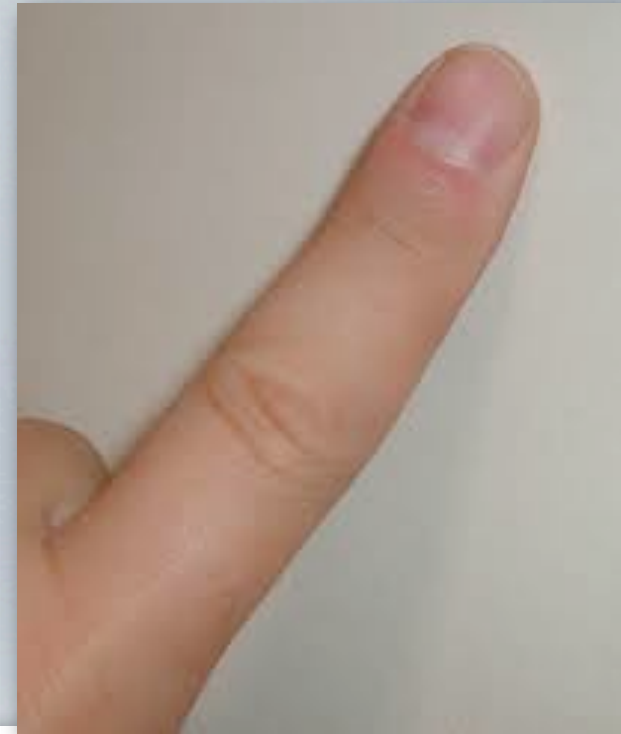
LACERATION







OPEN / SURGICAL CRICOTHYROTOMY



**‘THE HARDEST
THING ABOUT
PERFORMING A
CRIC IS PICKING
UP THE KNIFE’**

PETER ROSEN MD