

Most Common Craniofacial Anomaly

Cleft  
Palate

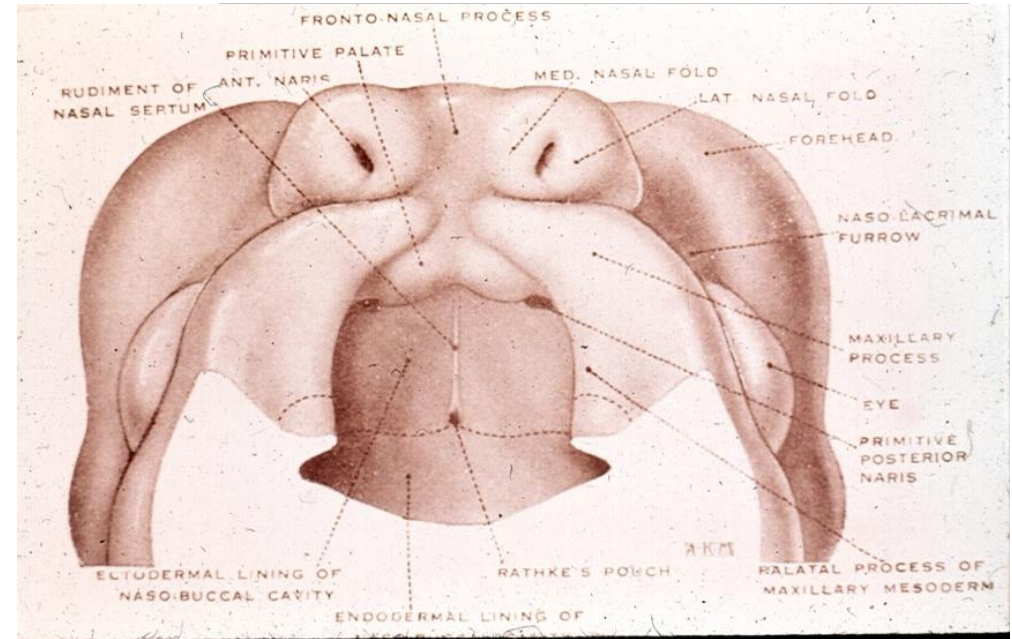
Most Common of all

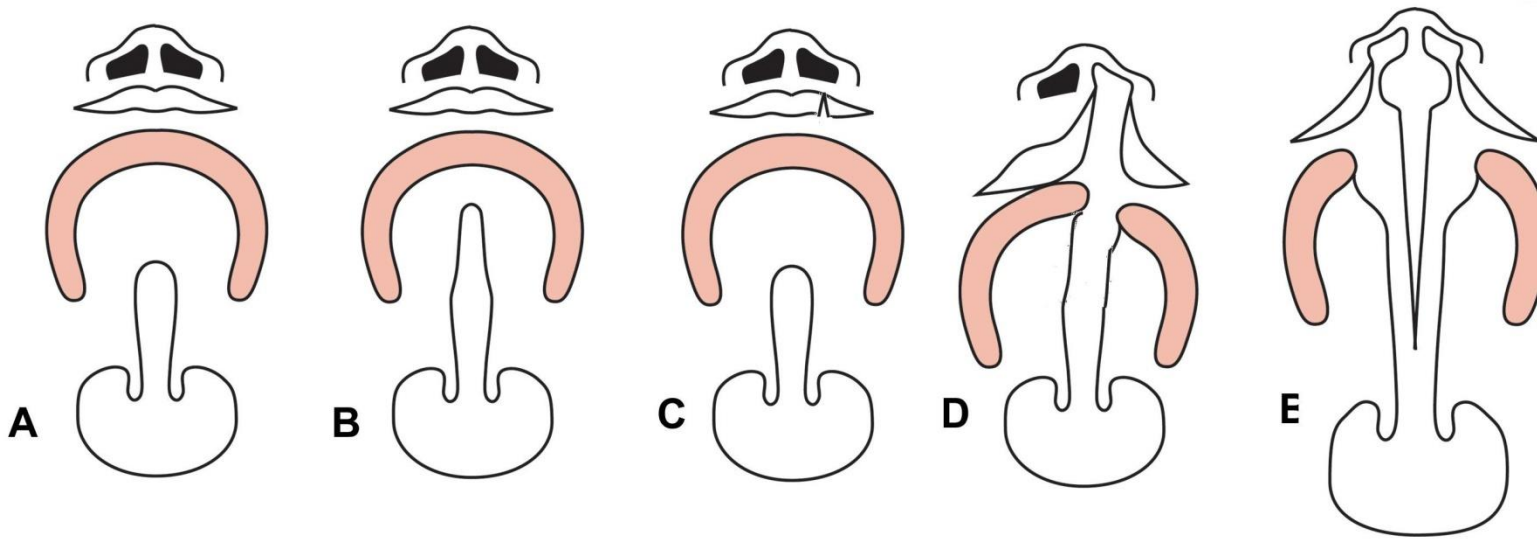
Cleft of  
the  
Primary  
and  
secondary  
palate



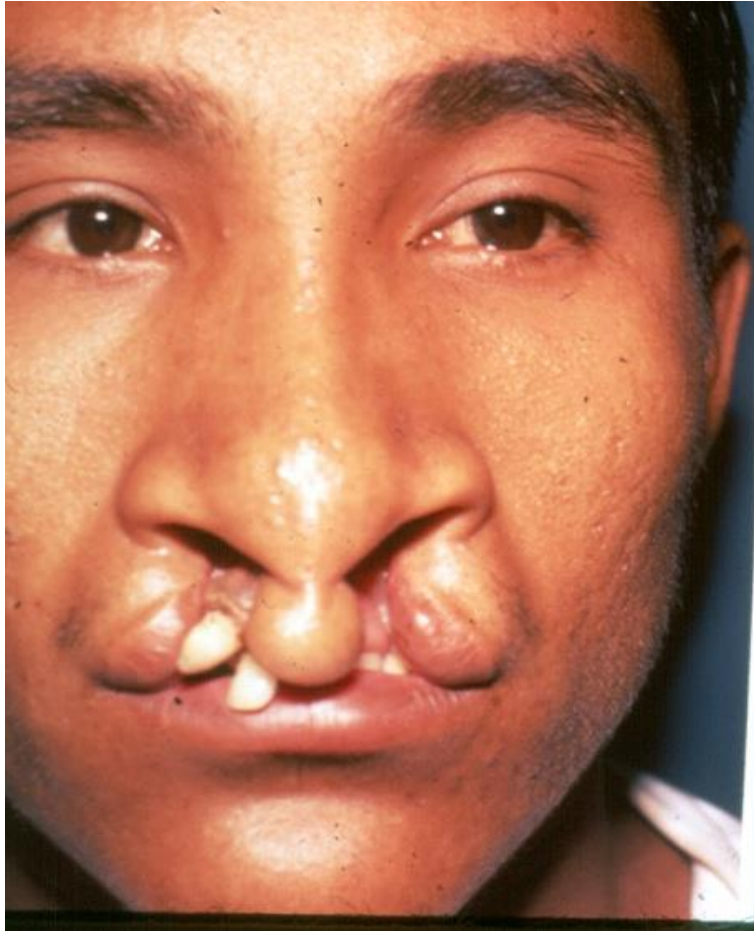
**Primary  
palate**

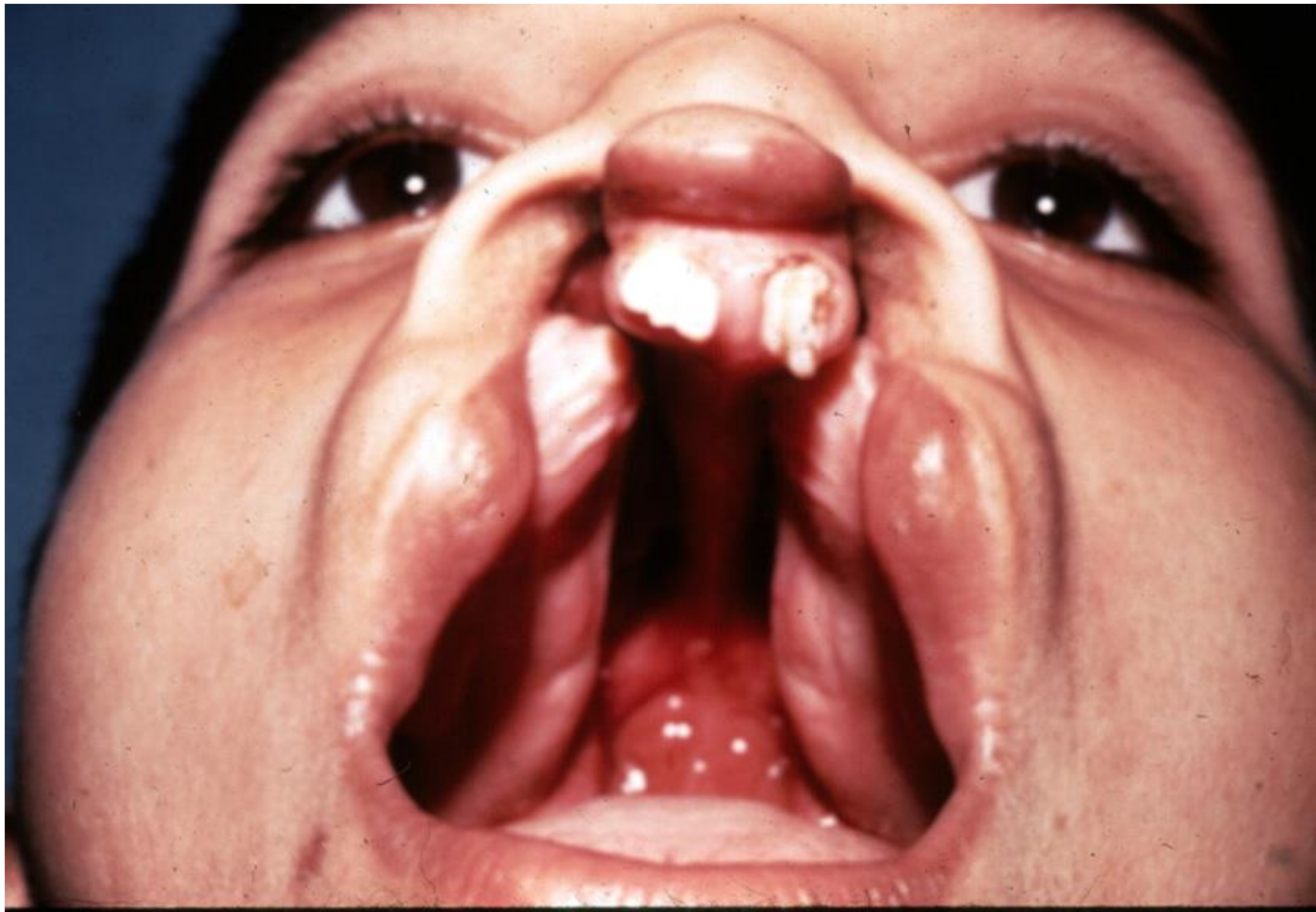
**Secondary  
palate**



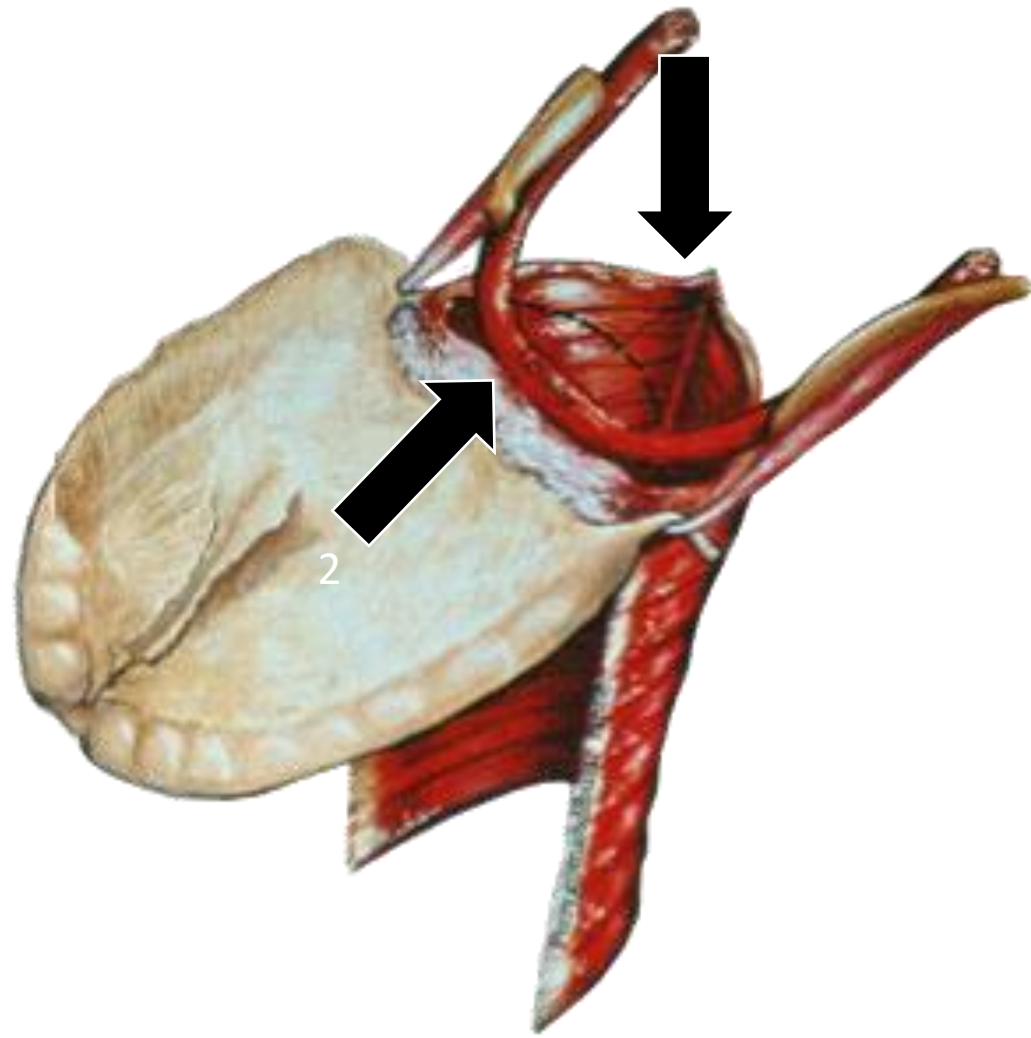


Cleft  
palate

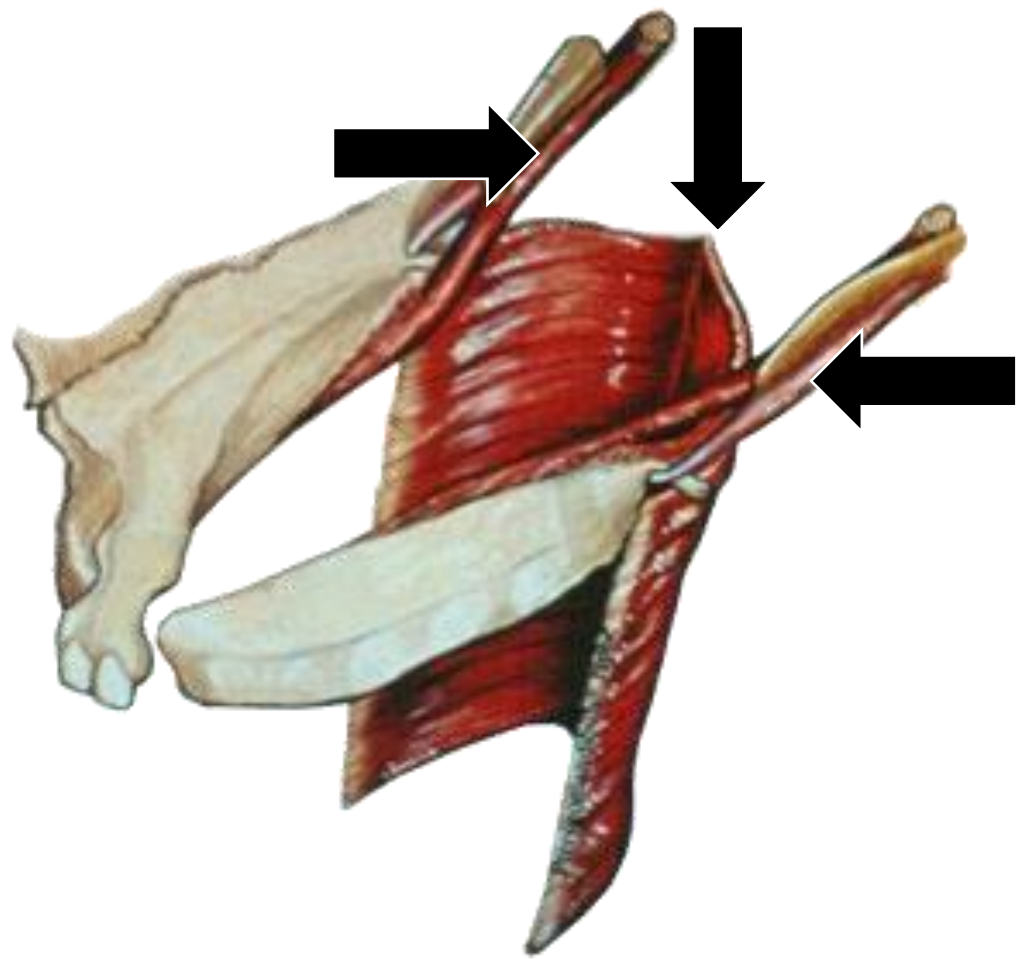






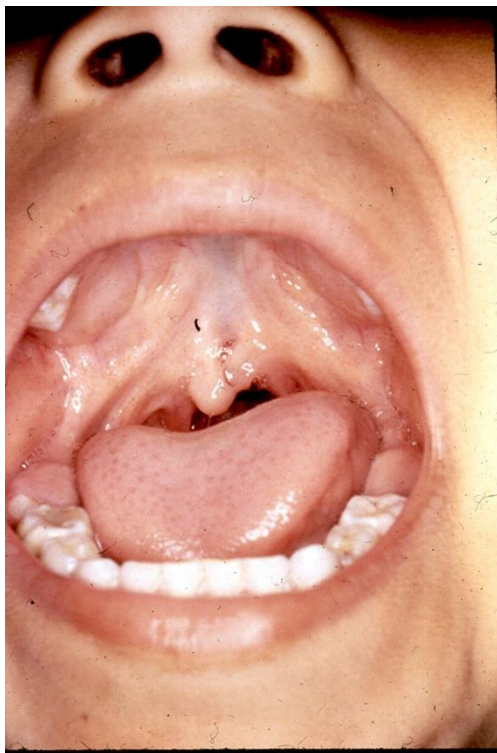












**Submucous cleft palate  
Occult Sub total cleft of secondary palate (OSCSP)**

Submucous cleft (Calnan's triad)

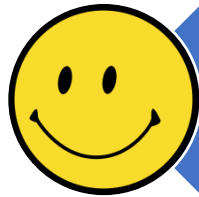
Only one may be present  
(or none)

Notch is the most frequent feature (palpation)

Dx may have to be Endoscopic



# Controversy on timing of palatal repair



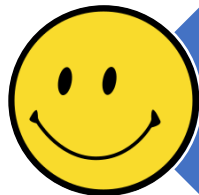
**Early = Phonologic development**



**Early = Affects M – F growth**

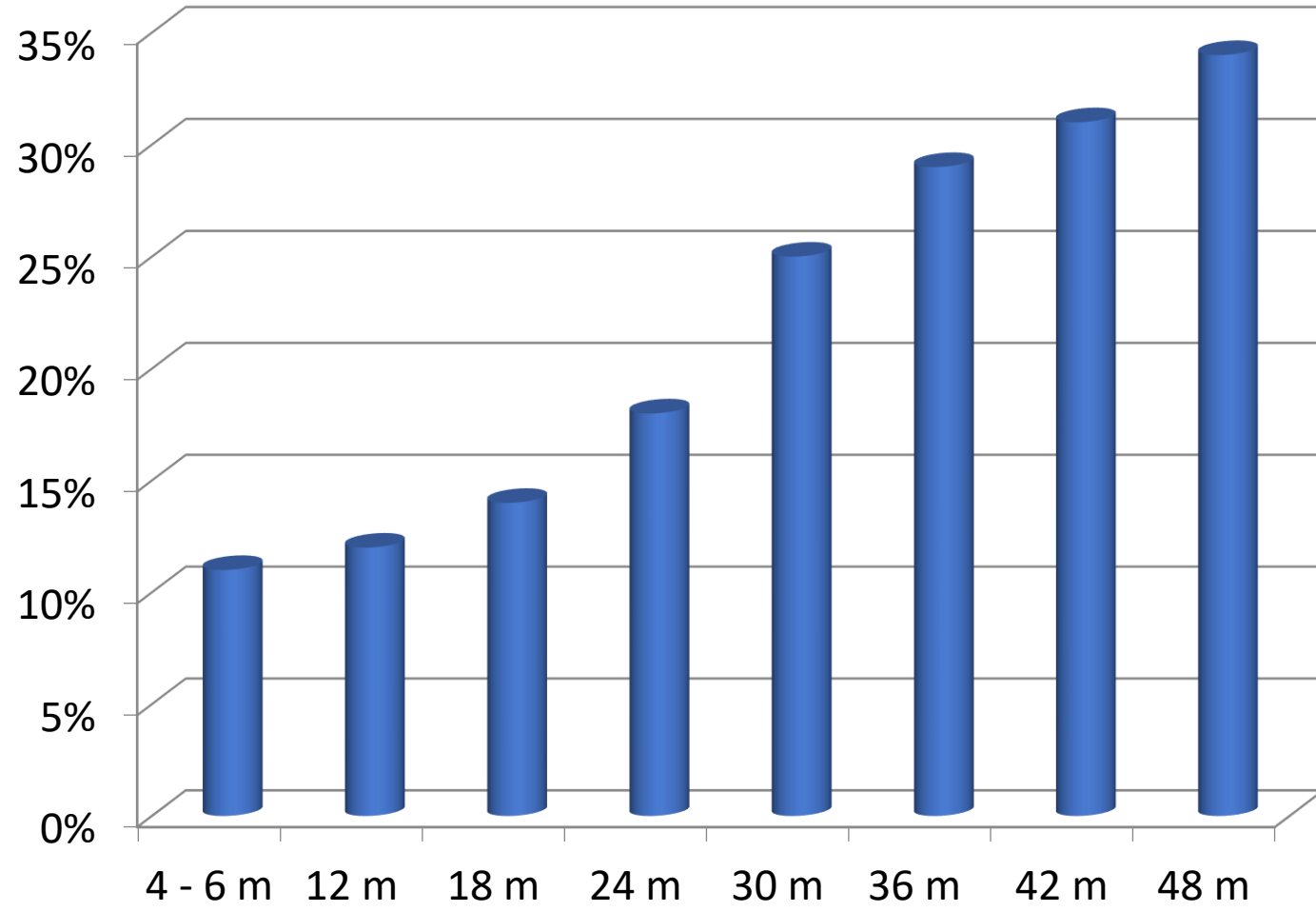


**Late = Delays phonologic  
development**

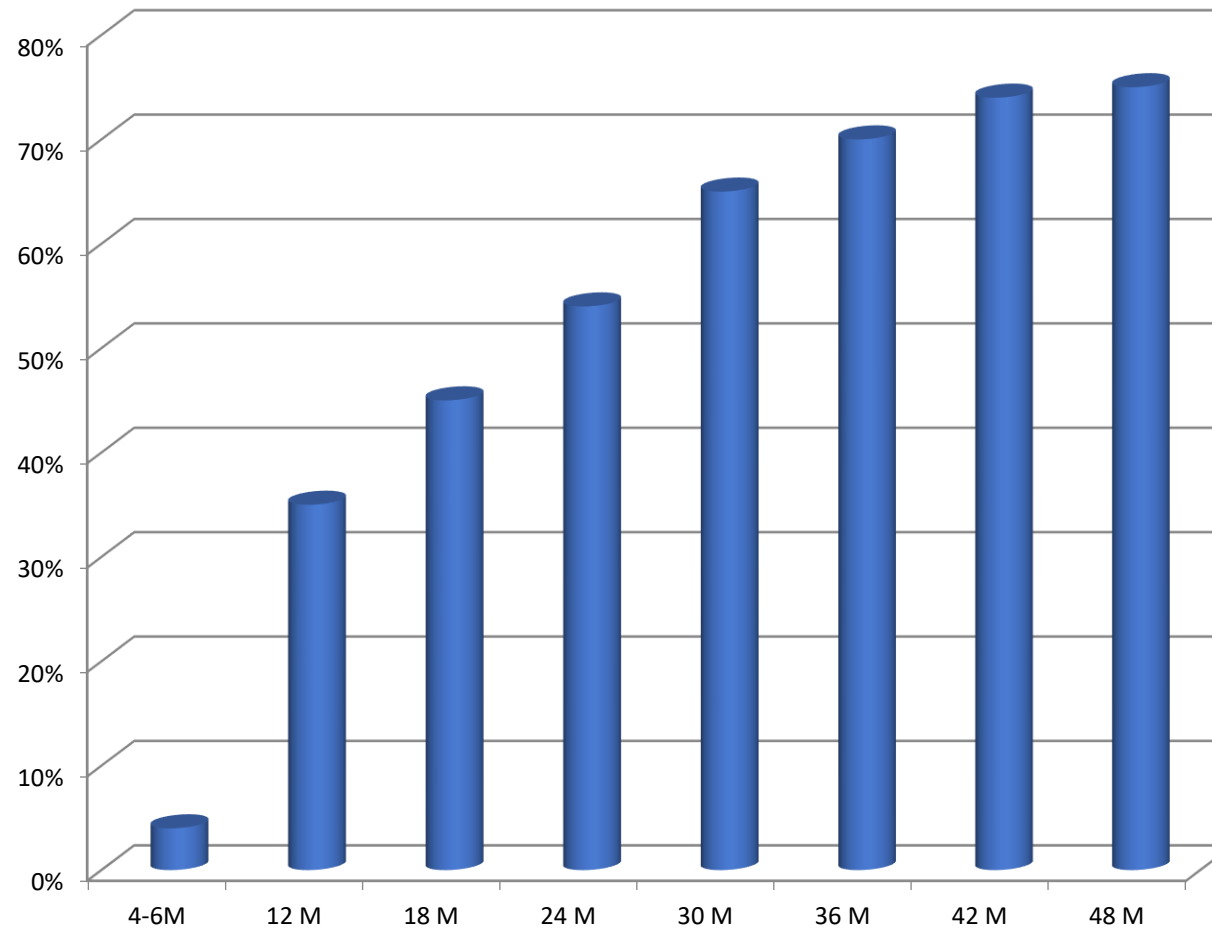


**Late = Enhances M – F growth**

# Age at time of repair and prevalence of V P I



## Age at time of repair and prevalence of C A

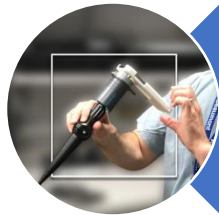




# Hypernasality



Mild (versus normal: poor  
intra – inter reliability)



Moderate (Still intelligible;  
always indicate Eval.)



Severe (Affect  
intelligibility)

# Hyponasality



Yes

No

(Nasalance < 20)

# Nasal emission



Yes / No



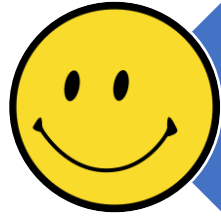
Consistent

Inconsistent



Phoneme specific

# Other important variables



Speech understandability  
or intelligibility



Speech acceptability



Speech quality

V P I



With adequate artic placement  
or phonological processes

With compensatory artic  
patterns

what part of  
**"It's NOT ready yet"**  
don't you understand?

# V P I and Comp. Artic.

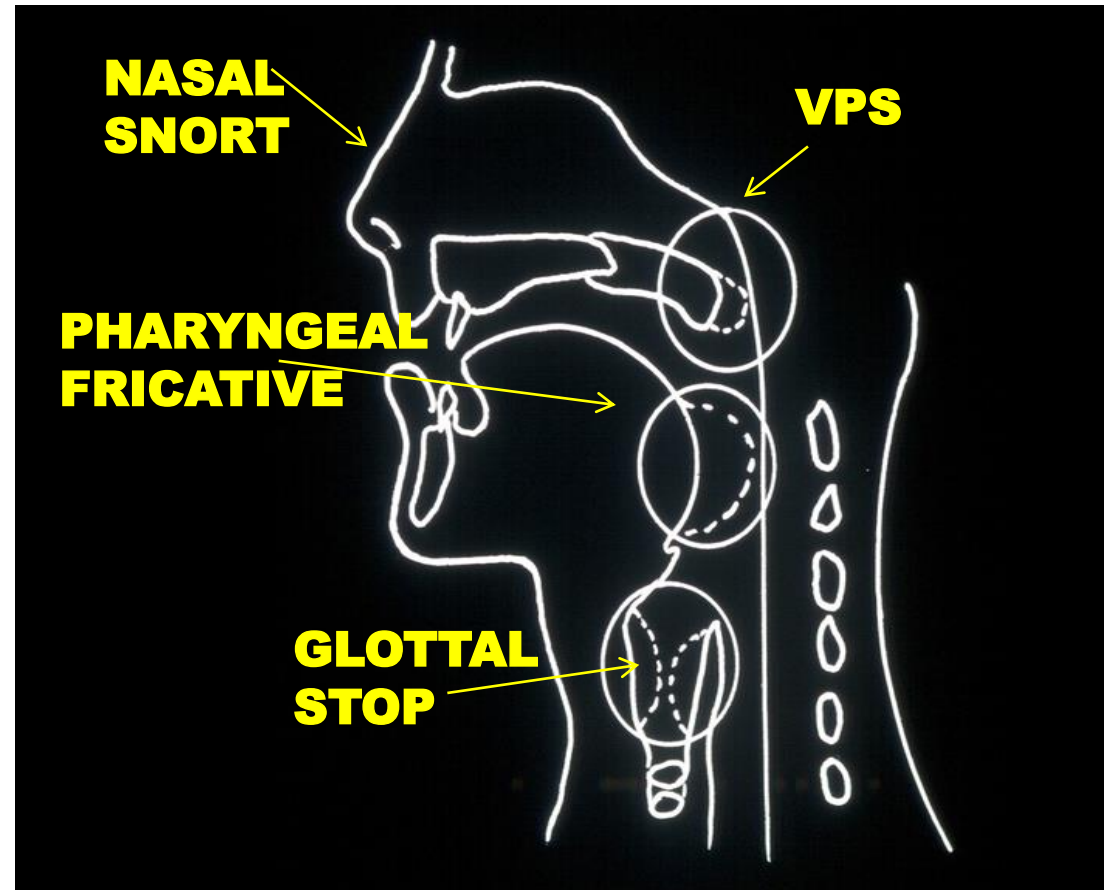
SLP treat. Correct V P I only 1% or cases (Comp. Artic)

Comp. Artic. Is not corrected by surgery (but correcting V P I helps)

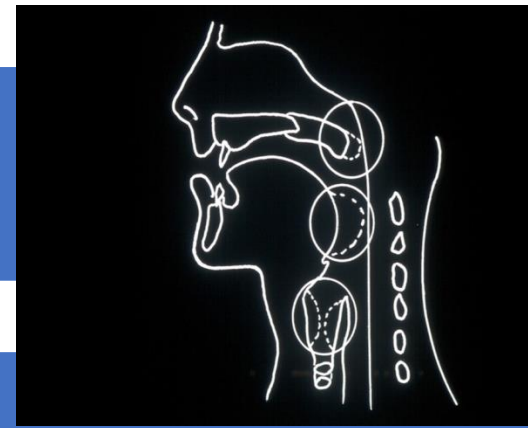
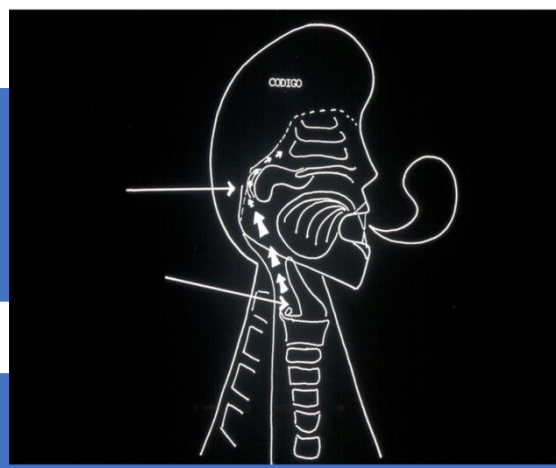
**NO CONFUNDIR LA  
MAGNESIA CON LA  
GIMNASIA**



Compensatory artic patterns: Displacement of adequate articulation placement to aberrant placement attempting to approximate the sound that is perceived



CA

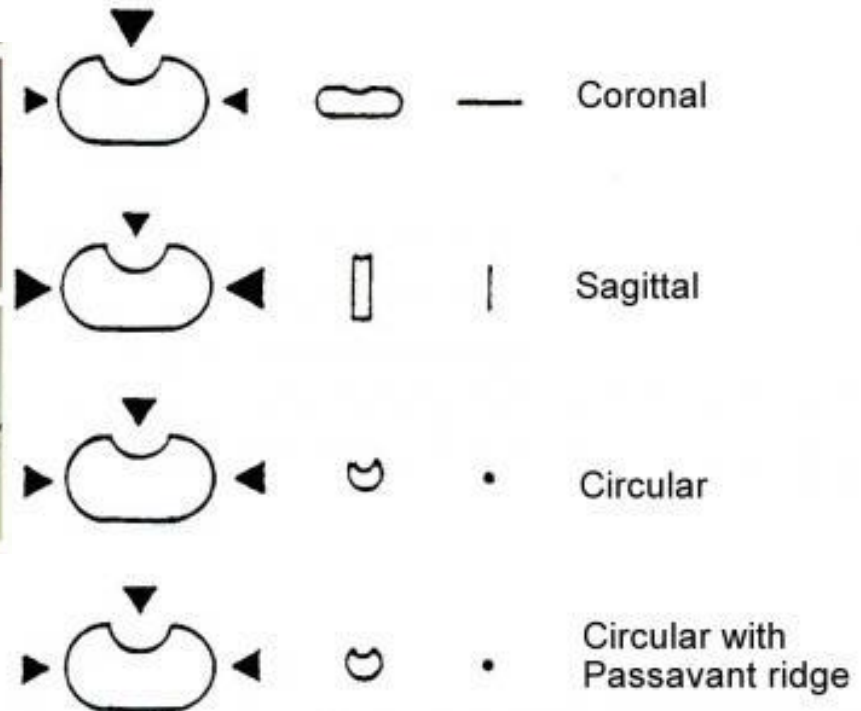


Regulation/Control theory (Warren, 1986; Bressmann, 2018) :

Mechanoreceptors in the oral and nasal cavities send feedback of air pressure imbalance, which is automatically compensated with an increase in airflow from the lungs.

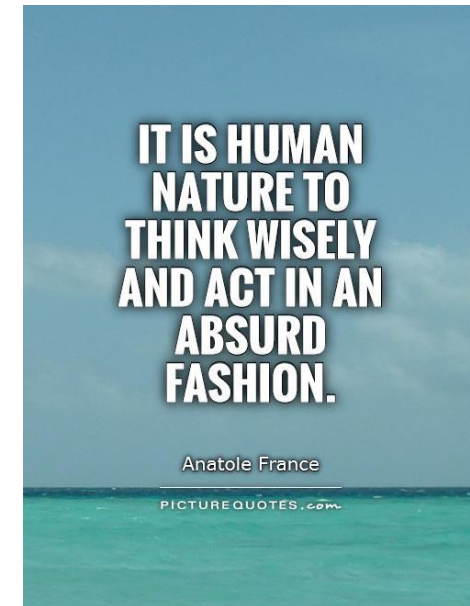


# VPS Anatomy and physiology varies from individual to individual



Thus...

**It is absurd to expect a successful outcome by performing the same procedure in every case**



V P I



SHPRINTZEN : “Tailor made flaps”

*Customize velopharyngeal surgery  
according to individual characteristics  
of the anatomy and physiology of VS*

## Intraoral examination

Only saying /a/



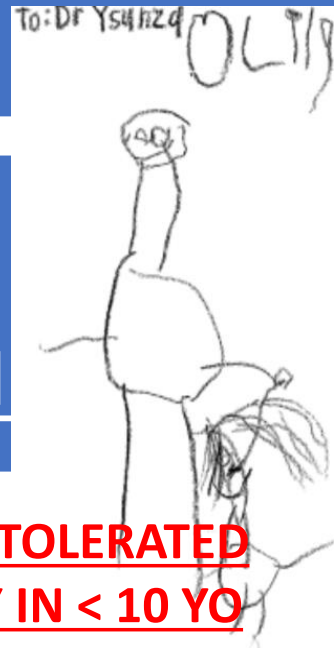
During /a/ palate may “elevate” or not and it means...Nothing. Moreover, you can see the palate but not the lateral walls

# Assessing VP Closure

Seal occurs during phonemes requiring intraoral pressure

In these sounds the lips are...Closed

Imaging is  
Indispensable!!



NOT WELL TOLERATED  
ESPECIALLY IN < 10 YO

WELL TOLERATED

# November 2020

AJSLP

Tutorial

## **The Use of Nonspeech Oral Motor Exercises in the Treatment of Children With Cleft Palate: A Re-Examination of Available Evidence**

Dennis M. Ruscello<sup>a</sup>  and Linda D. Vallino<sup>b</sup>

# Surgical treatment V P I

Same procedure for every case?

How to modify surgical technique?

Define outcome :*“Ahi se va”... “Q Tanto es tantito?”... “Ma O Menos”... “Good Speech”... “It’s OK”*)

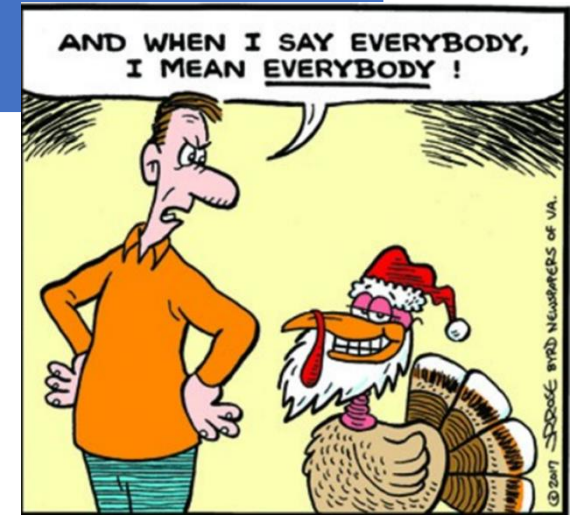
**OY VEY !!!!**



# Residual V P I

Even the best of the best surgeons will have residual V P I

All C P clinic have to deal w residual V P I (More than you think!)







International Journal of Pediatric Otorhinology

**Vol. 78, Issue 10,  
October, 2014**



# Speech outcomes at age 5 and 10 years in unilateral cleft lip and palate after one-stage palatal repair with minimal incision technique – A longitudinal perspective

Jill Nyberg <sup>a,b,c,\*</sup>, Petra Peterson <sup>b,d</sup>, Anette Lohmander  
Karolinska Institute. Sweden

C P repair around 1 YO  
(10 – 18 Mo)

After 10 Y Follow-up –  
Up TO 41% undersent  
pharyngeal flap

CA < 25 %

**NEVER** PERFORM SURGERY FOR CORRECTING  
**V P I W O** Assessment of V P S,  
**including:**

V N P

M P V F

**A C P A**  
**Cleft Palate**  
**Craniofac J**  
**Jan, 2018**



# Tonsillectomy

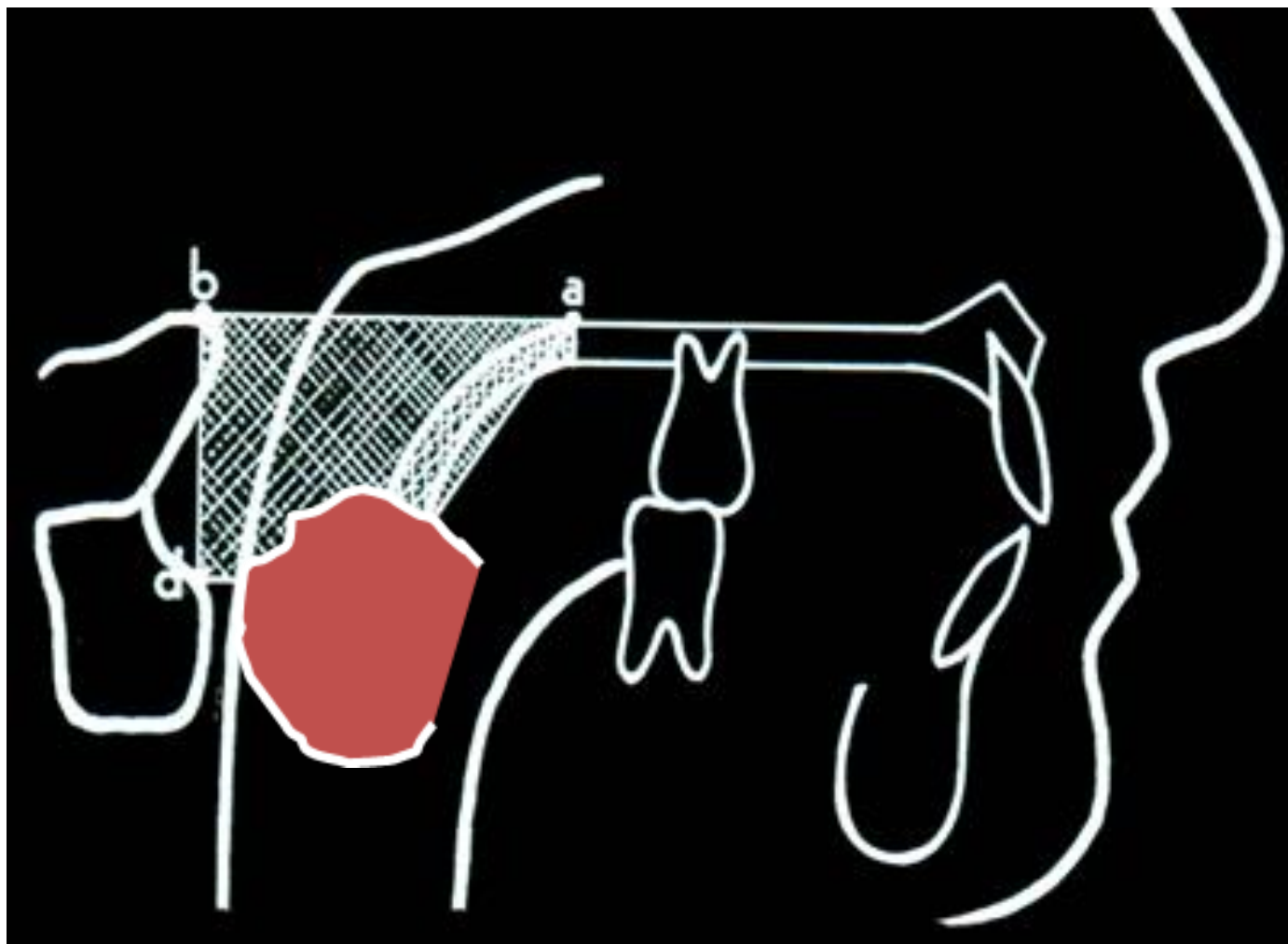
Myth:  
Tonsillectomy can  
cause or increase  
VPI

*Au contraire!* :  
Enlarged tonsils  
can hinder velum  
movement

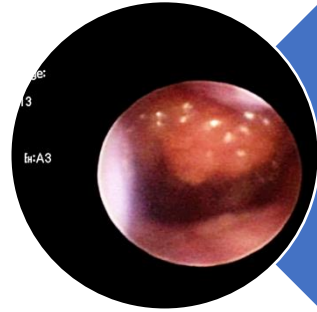
Tonsillectomy  
cannot cause VPI  
unless you do it  
W...



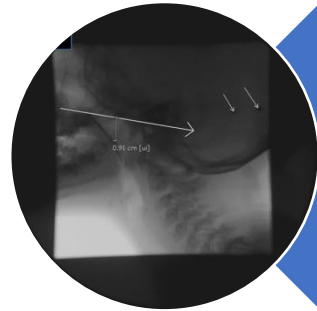
# Tonsils and velum movement



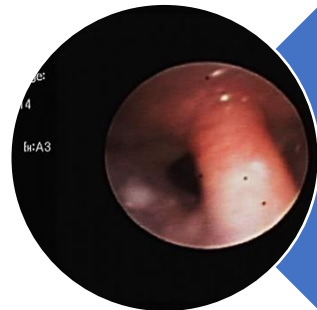
# Adenoidectomy



Adenoid contribute to VP closure (but can be obstructive)

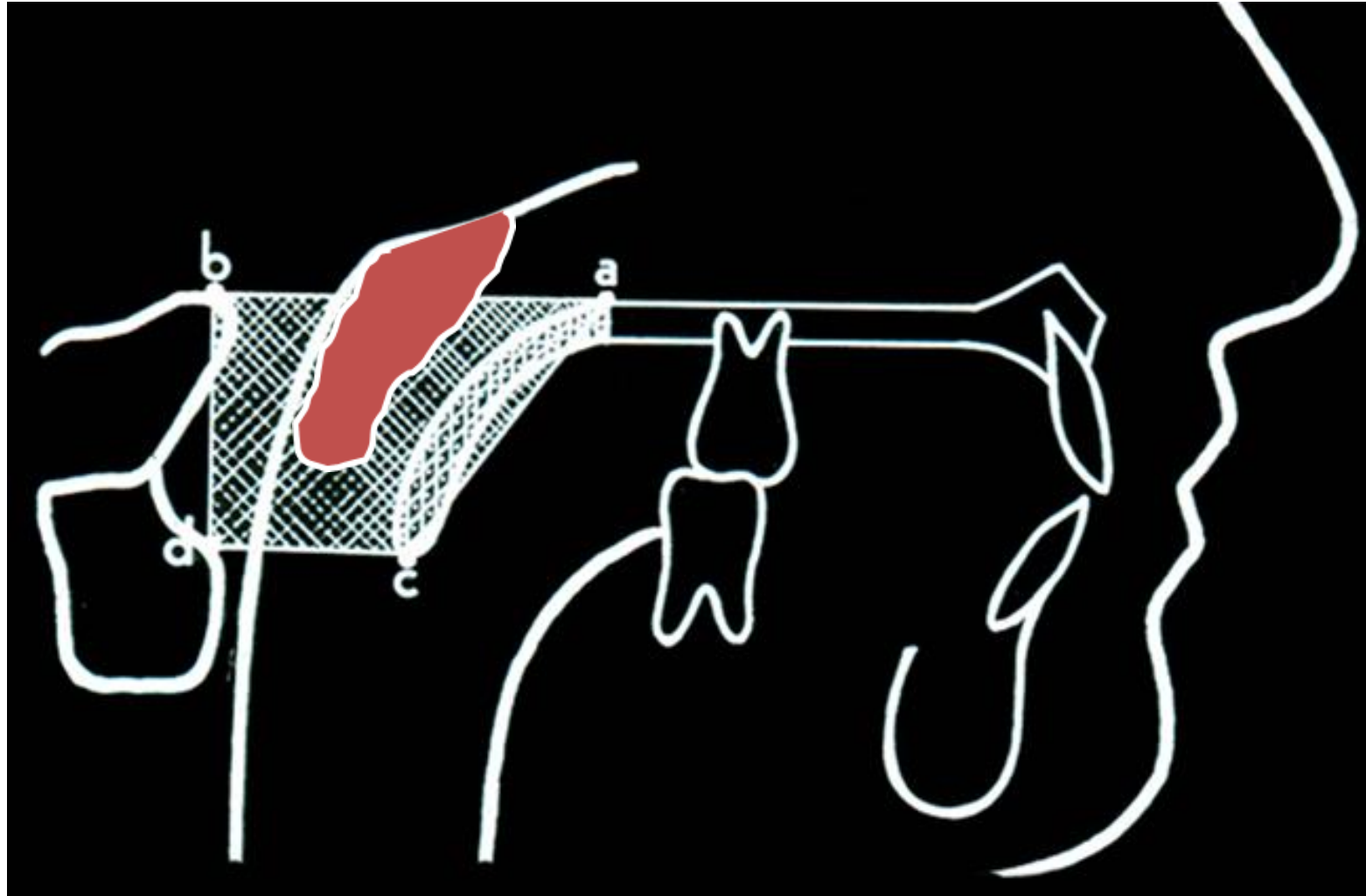


Adenoidectomy can cause V P I (without palatal malformation)

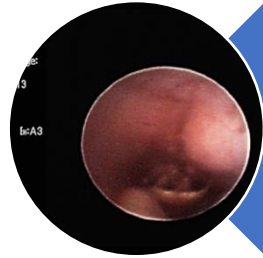


Adenoid are where flap or sphincter should be

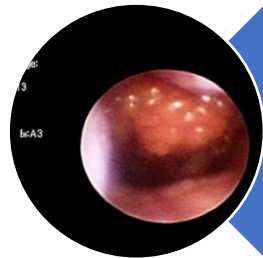
# Adenoid and velopharyngeal sphincter



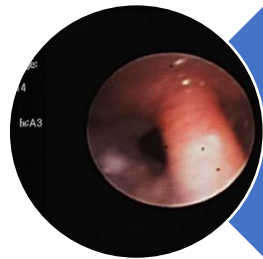
# T & A and VPI surgery



.T & A prevent O S A



.Decision based on Imaging not  
intraoral exam !!

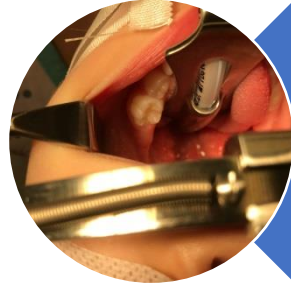


.Total adenoidectomy improves  
success of V P I surgery

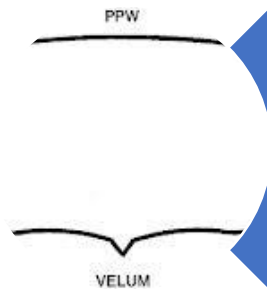
# T & A



Never at the same stage of V P I surgery !!



Higher rate of complications



Less success rate for correcting V P I



# T & A and surgery for V P I

How long following T & A?

2 M?

4 M?

6 M?

More?

