Section C

The Importance of Breastfeeding as it Relates to Total Health

Presented by:

Brian Palmer, D.D.S.
Kansas City, Missouri
January, 2002

How breastfeeding reduces the risk of:

- Obstructive sleep apnea (OSA)
- Long face syndrome
- Otitis Media
- Abfractions
- Obesity
- Cancer

Obstructive sleep apnea (OSA)

C3

Basic Principle:

Overall health

is directly related to the

EASE OF BREATHING.

C4

ABC's of Emergency Care

- Airway
- Breathing
- Circulation

- 4-6 minutes - Brain damage possible if not breathing
- 6-10 minutes - Brain damage likely
- Over 10 minutes - Irreversible brain damage certain

C6 Throat of a healthy 90 year old gentleman.

Obstructive Sleep Apnea (OSA)

Simplified definition:

Cessation of airflow for greater than 10 seconds with continued chest and abdominal effort.

The connection:

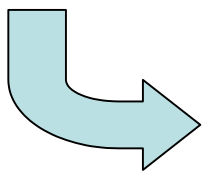
Bottle-feeding

Excessive thumb sucking

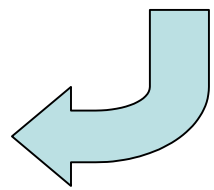
Pacifier use

Snoring

Sleep apnea



Similar signs and symptoms



Hypothesis

Breastfeeding reduces the risk of obstructive sleep apnea.

Brian Palmer, DDS 1998

The following article introduces **one of the most important formulas in the medical field today.**
You can link to this article from within this website.

Kushida C. et al., A predictive morphometric model for the obstructive sleep apnea syndrome, Annals of Internal Medicine, Oct 15, 1997; 127(8):581-87.

Stanford Morphometric Model

$$P + (Mx - Mn) = 3 \times OJ + 3x (BMI - 25) \times (NC/BMI)$$

P = palatal height

Mx = maxillary intermolar distance

Mn = mandibular intermolar distance

OJ = overjet

NC = neck circumference

BMI = body mass index

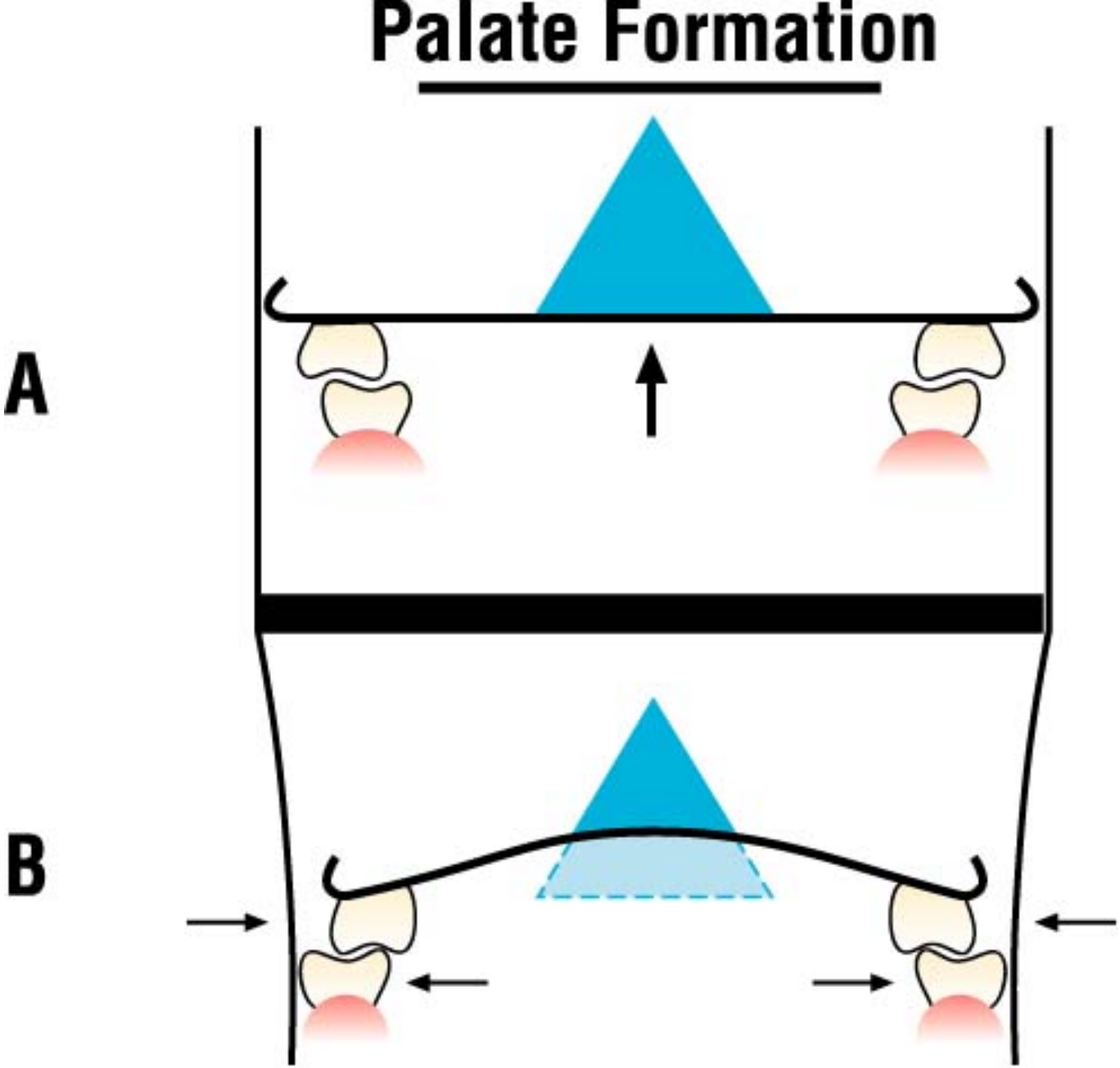
"Model has clinical utility and predictive values for patients with suspected obstructive sleep apnea"

Predictive factors that puts an individual at risk for OSA include:

- High palate
- Narrow dental arches
- Overjet
- Large neck size
- Large body mass index / obesity

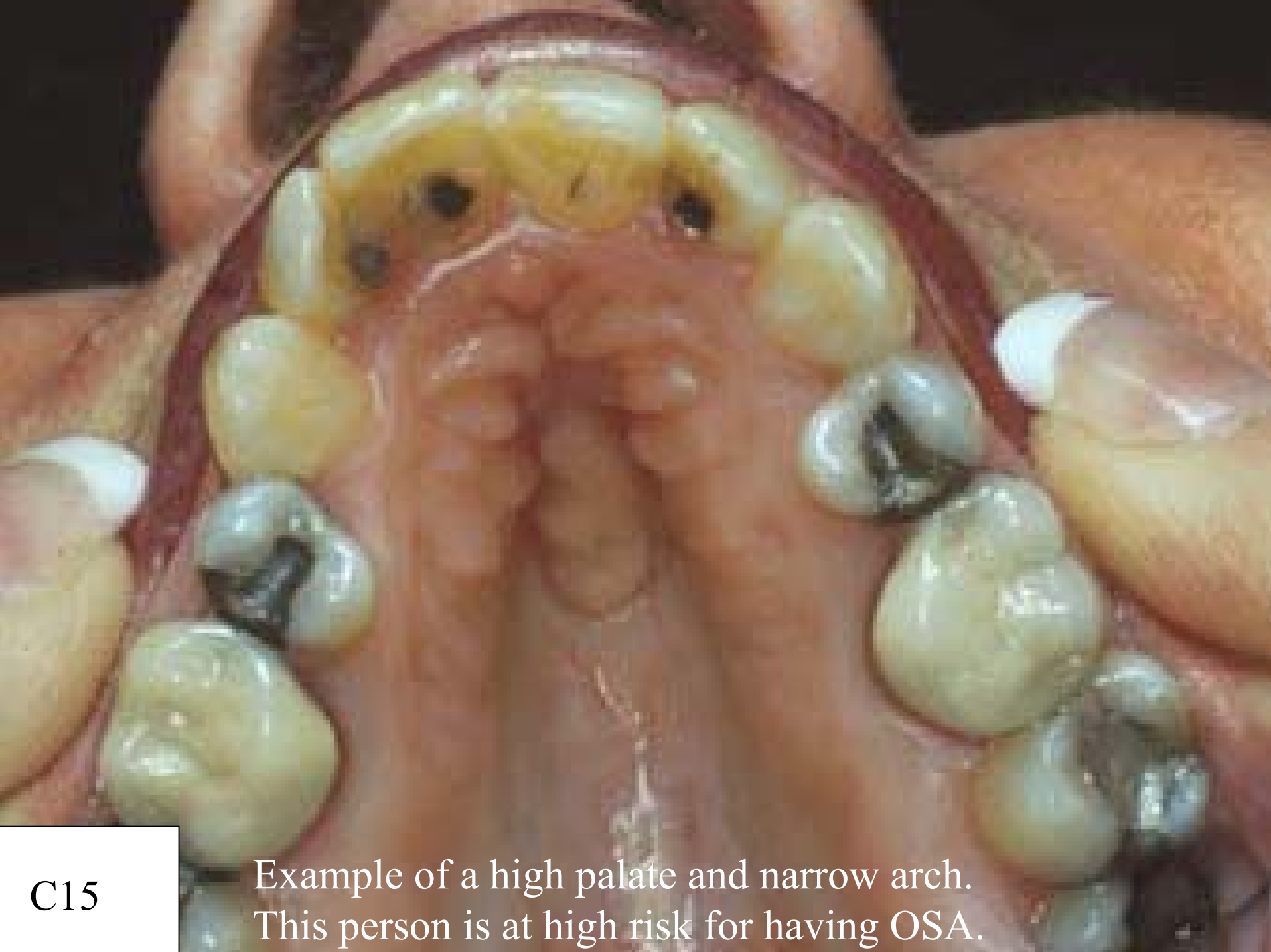
IF the individual does not have a large neck and/or body mass, then the predictive value for being at risk for OSA is based on a high palate, narrow dental arches and overjet.

C13 What a palate should look like (prehistoric skull).



C14

Understand the significance of a high palate and what causes it.



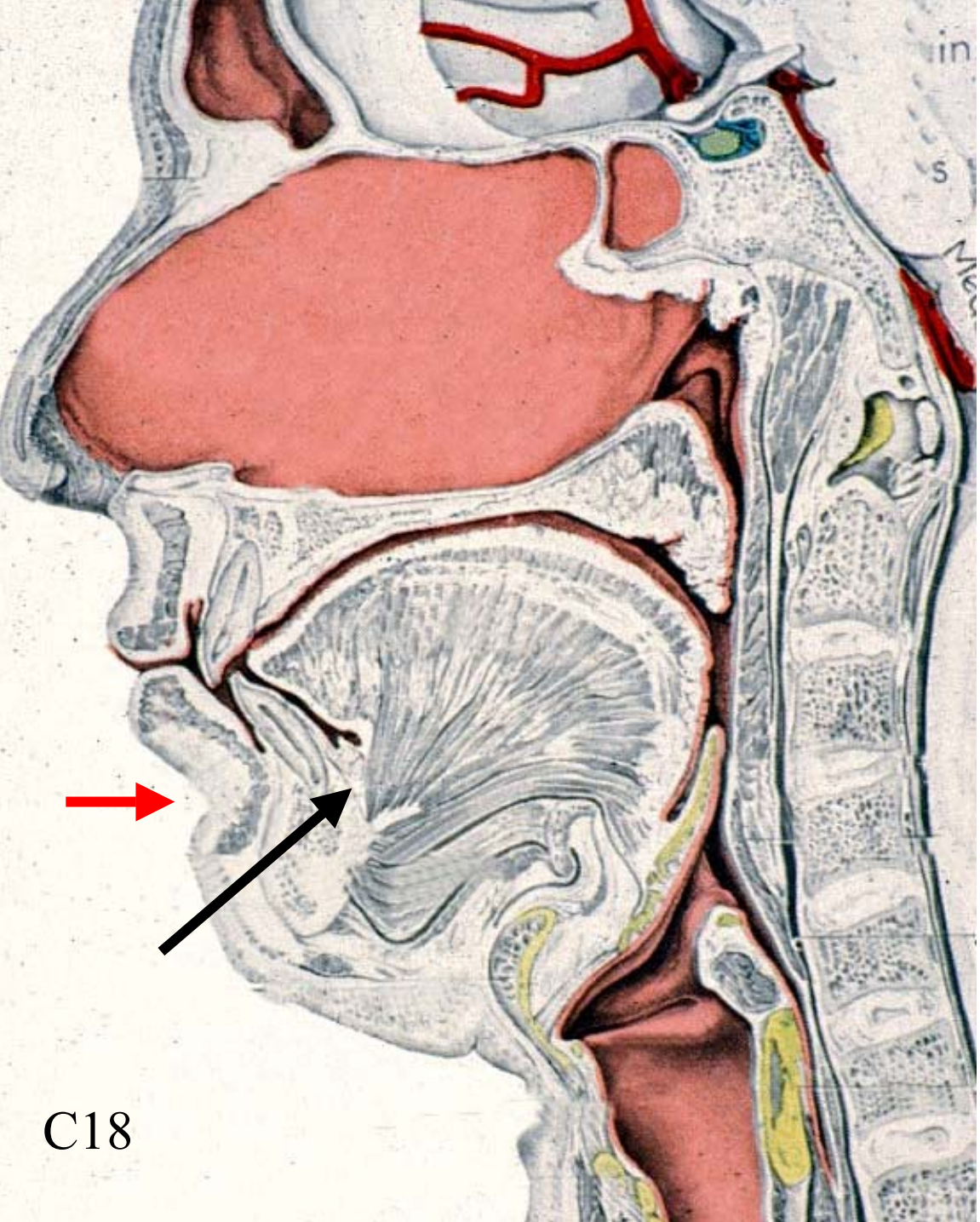
C15

Example of a high palate and narrow arch.
This person is at high risk for having OSA.

Overjet of person with severe apnea.

C16

C17 Overjet of same severe apneic from different view.

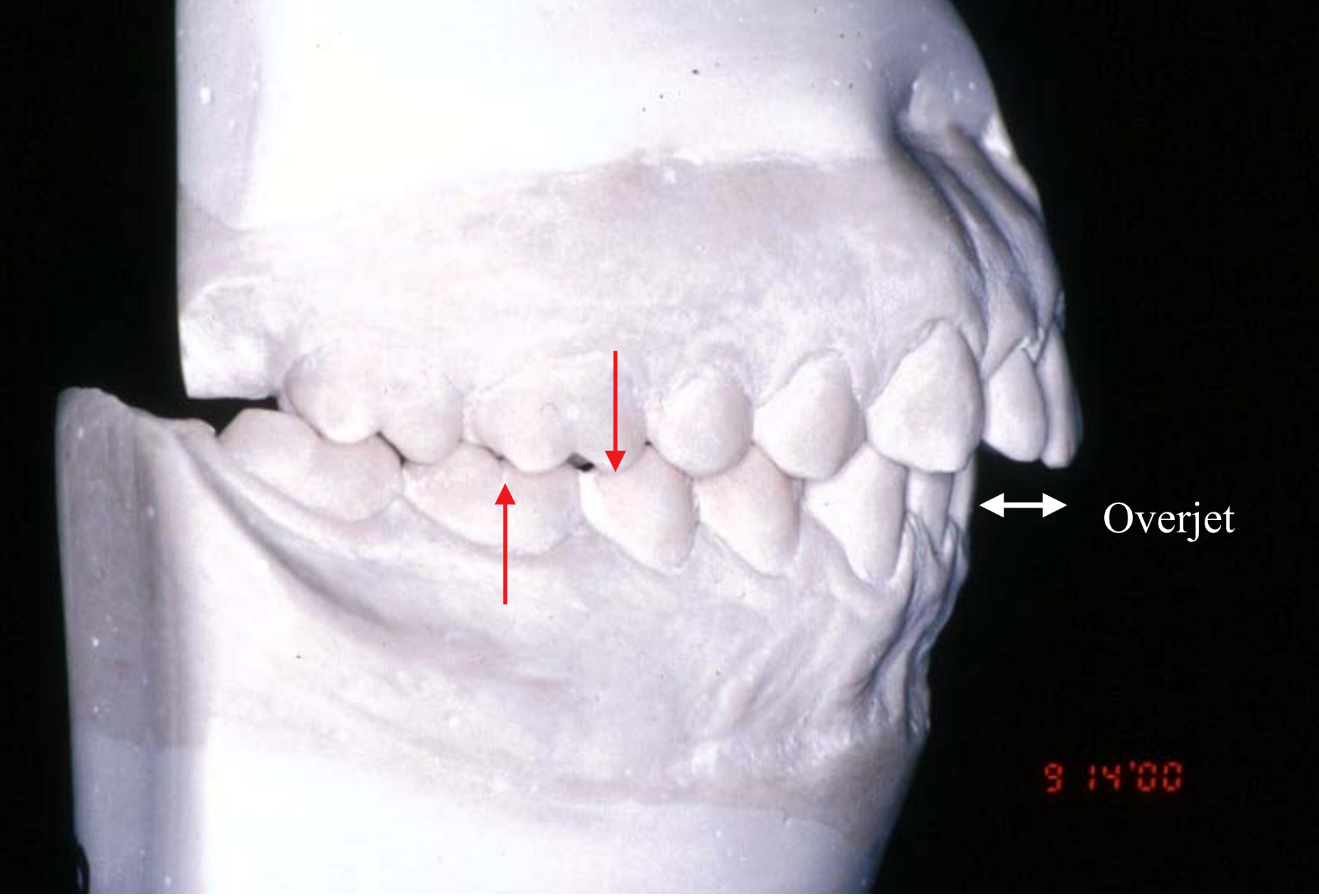


C18

A retruded mandible can drive tongue back into throat and can block off airway. A retruded tongue can also elevate the soft palate which in turn can block off the airway and eustachian tubes.

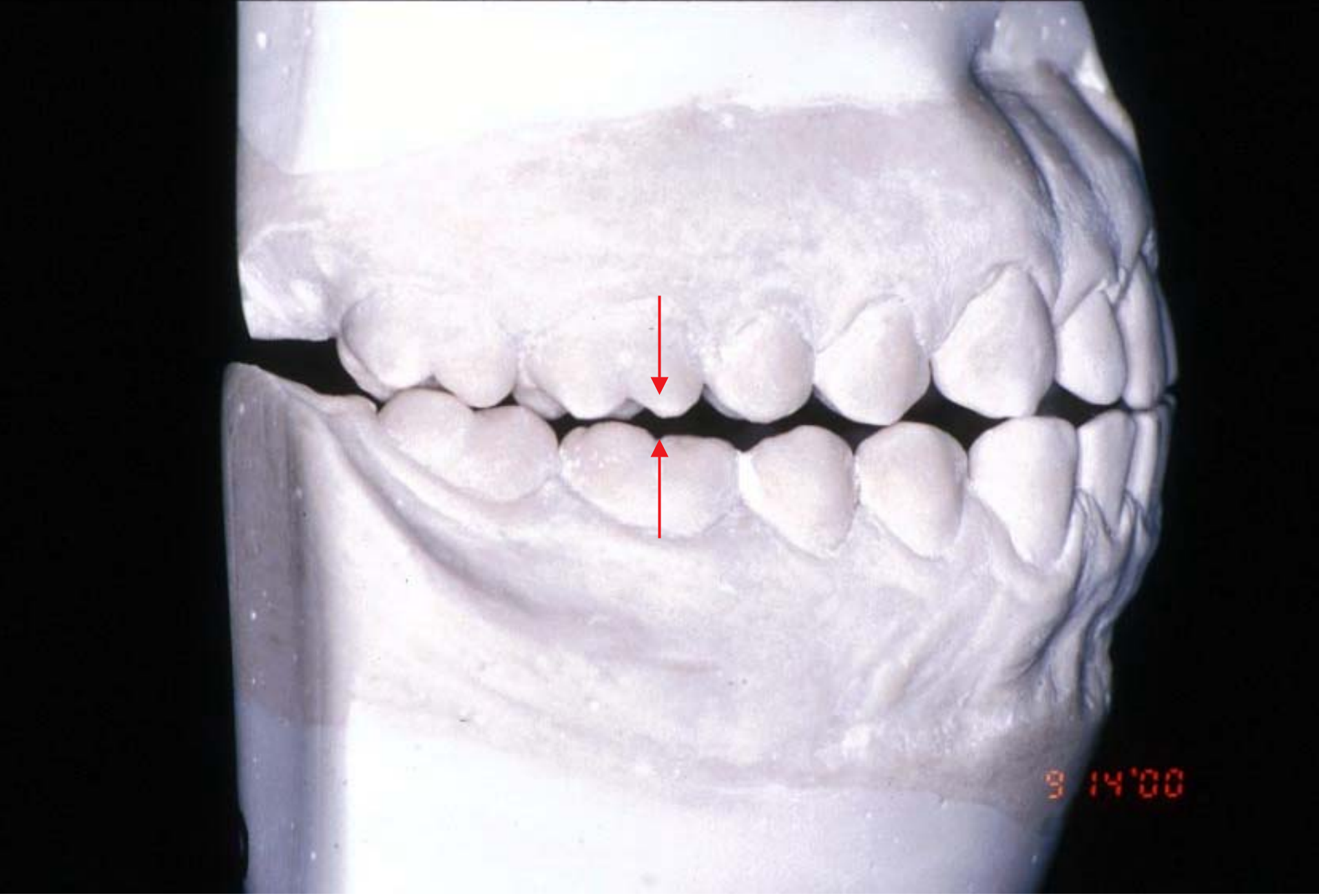
Black arrow shows insertion point of tongue into lingual(tongue) side of mandible (lower jaw).

(Grant's Atlas)



C19

Class II - retrognathic malocclusion.



C20 Previous models positioned in a molar Class I occlusion.

Symptoms of OSA in children

- Snoring
- Hyperactivity
- Developmental delay
- Poor concentration
- Bed wetting
- Nightmares
- Night terrors

Children's symptoms continued

- Headaches
- Restless sleeps
- Obesity
- Large tonsils
- Noisy breathers
- Chronic runny noses
- Frequent upper airway infections

Attention Deficit/Hyperactivity Disorder (ADHD)

- Snoring associated with higher levels of inattention and hyperactivity
- 81% of snoring children with ADHD (25%) could have their ADHD eliminated if their habitual snoring were effectively treated

Chervin, RD et al. Symptoms of Sleep Disorders, Inattention, and Hyperactivity in Children,1997, Sleep, 20(12):1185-1192.

"Children with persistent sleep problems were more likely to have behavior problems, especially tantrums and behavior management problems, than were children without persistent sleep problems."

Zuckermen B, et al. Sleep problems in early childhood:continuities, predictive factors and behavioral correlates. Pediatrics 1987;80(5):664-71.

Enuresis (Bed wetting)

"Surgical removal of upper airway obstruction led to a significant decrease in or complete cure of nocturnal enuresis in 76% of children studied."

Weider, DJ, Nocturnal enuresis in children with upper airway obstruction, Otolaryngol Head Neck Surg 1991;105:417-32

"Nocturnal enuresis ceased within a few months in the 10 cases studied by using rapid maxillary expansion to reduce nasal constriction."

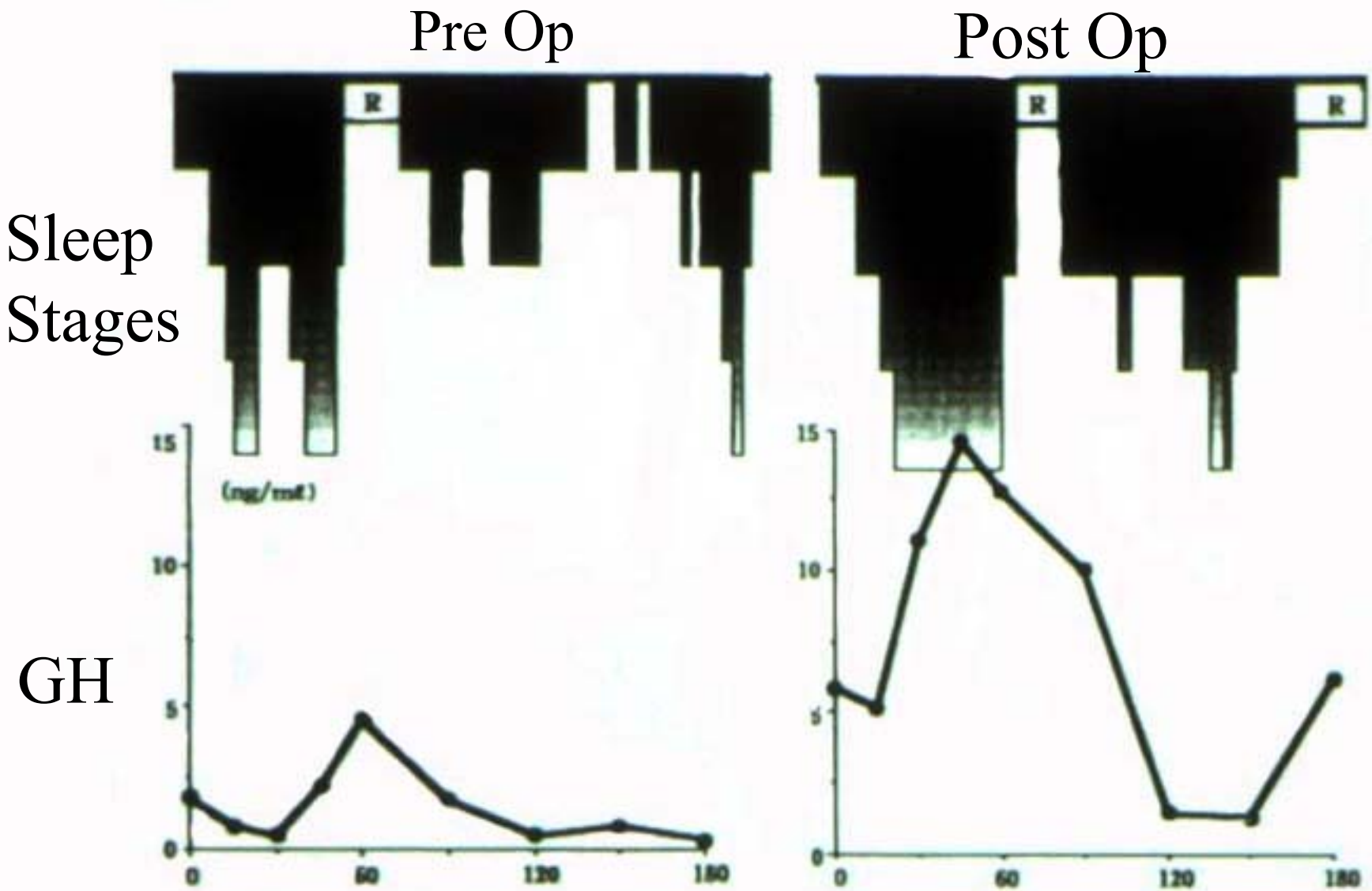
Timms D, Rapid maxillary expansion in the treatment of nocturnal enuresis, The Angle Orthodontist 1990, 60(3):229-33

Growth hormone reaches its peak secretory levels during Stage 4 of sleep.

Soichiro Miyazaki, MD, Japan.
Personal correspondence.

C26

(Soichiro Miyazaki, MD)



C27

More Growth Hormone secreted in Stage 4

Study results:

- 6.2% of children snore every night by the age of 4.
- 18% snored if infected (colds, etc.)
- More children used pacifiers among the snorers than non-snores 60% vs. 35%.
- Tonsilar angina is 3x more common in snorers.
- Casts showed significant difference in width of maxilla and length of mandibles.

Hultcrantz E. et al. The epidemiology of sleep related breathing disorders in children. Internat J Pediatr Otorhino 1995 ;32S63-S66.

Postnatal depression

"Modification of problematic childhood sleep behavior is associated with significant improvement in maternal mood…significant numbers of mothers being diagnosed as having postnatal depression are suffering the effects of chronic sleep deprivation."

Armstrong K. Sleep deprivation or postnatal depression in later infancy: separating the chicken from the egg. J. Pediatric Child Health 1998:34(3):260-2.

"Snoring is common in pregnancy and is a sign of pregnancy-induced hypertension. Snoring indicates a risk of growth retardation of the fetus."

Franklin KA et al. Snoring, pregnancy-induced hypertension and growth retardation of the fetus. Chest 2000;117(1):137-141.

Symptoms of OSA in adults

- Heavy snoring
- Stop breathing while sleeping -“snorts”
- Excessive daytime sleepiness
- High blood pressure
- Morning headaches
- Restless sleeps
- Depression

Adult symptoms continued

- Severe anxiety
- Short term memory loss
- Intellectual deterioration
- Temperamental behavior
- Poor job performance
- Impotence
- Dry mouth upon awakening
- Mouth breathing

C33 My brother with trach after stroke.

Genetics and OSA

- OSA may be a result of inherited factors such as:
  - Abnormal tongue activity

Kushida C, et al. Genetics and Craniofacial Dysmorphism in family studies of OSA, June 1966, APSS Conference.

Tongue activity and OSA

"Apnea patients exhibited greater genioglossal activity and tensor palatini EMG activity than did controls during wakefulness."

Mezzanotte W et al. Influence of sleep onset on upper-airway muscle activity in apnea patients versus normal controls. Amer J Respir Crit Care Med, 1996 Vol 153:1880-87.

Facial form and risk for sleep apnea

- Craniofacial features can be a strong indicator of risk for the development of obstructive sleep apnea syndrome (OSAS).

Guilleminault C, Parinen M, Lollman K, Powell N, Stoohs R. Familial aggregates in obstructive sleep apnea syndrome, Chest 1995, 107:1545-1551.

Hypothesis:

Prehistoric man did not have OSA

In prehistoric skulls - rarely find:

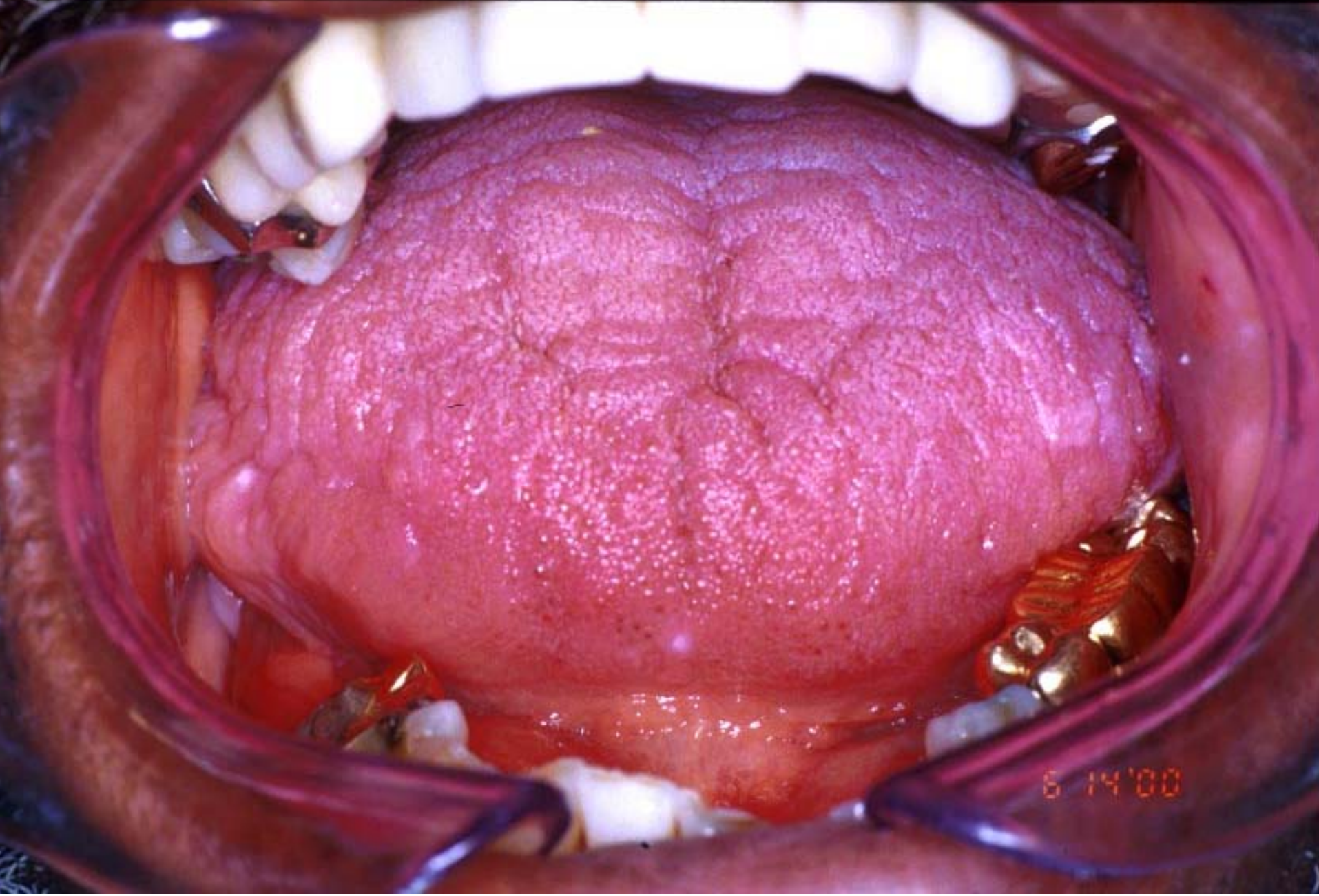
- High palates
- Narrow dental arches
- Over jets
- Non-pathologic malocclusions

Do find:

- Large posterior nasal apertures (choanae)

"Modern,
non-breastfeeding nurturing,
is having a negative impact
on our health and
evolutionary destiny."

Brian Palmer, DDS, 1998

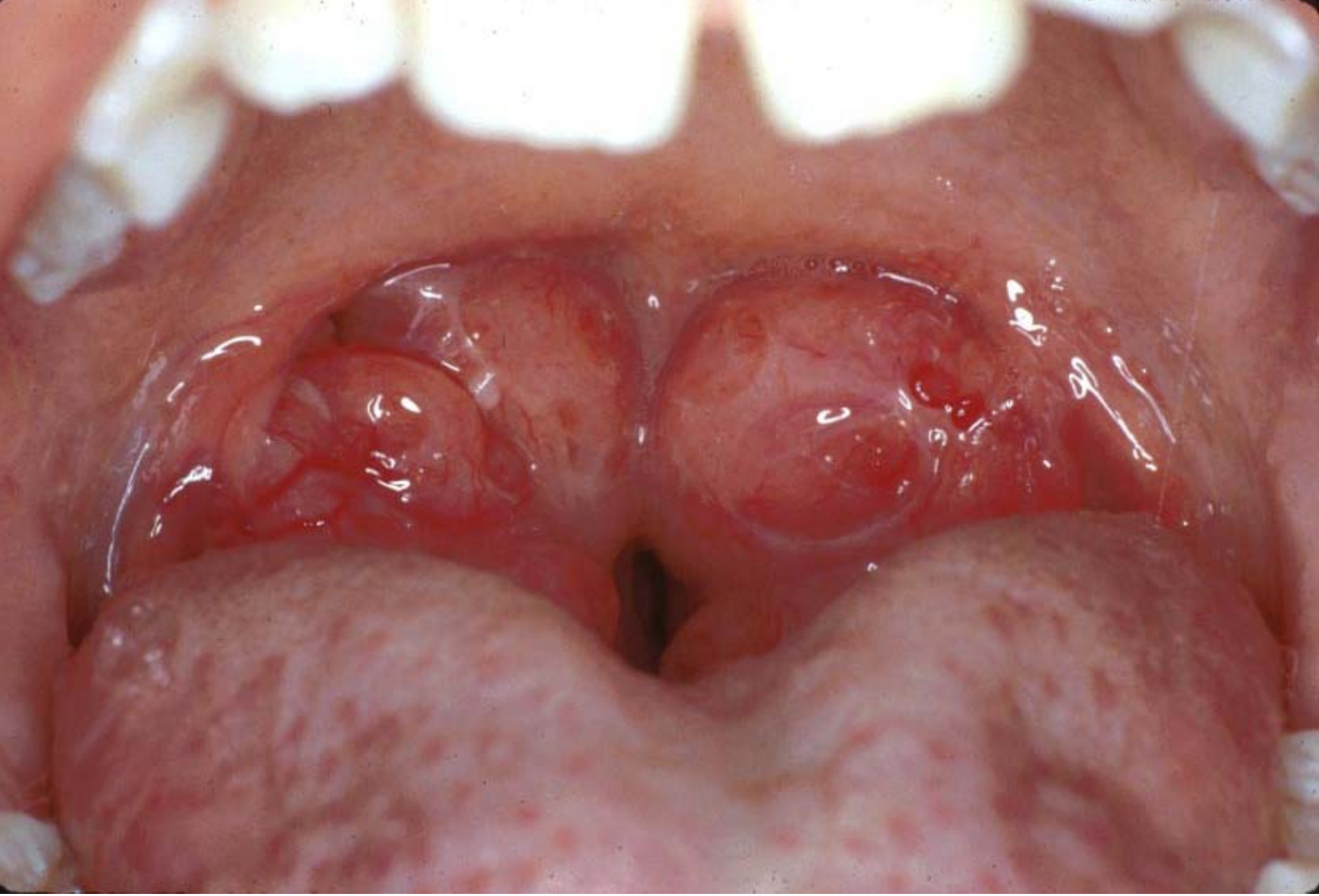


C39 A large tongue can also obstruct the oropharynx.

Long Face Syndrome

C40

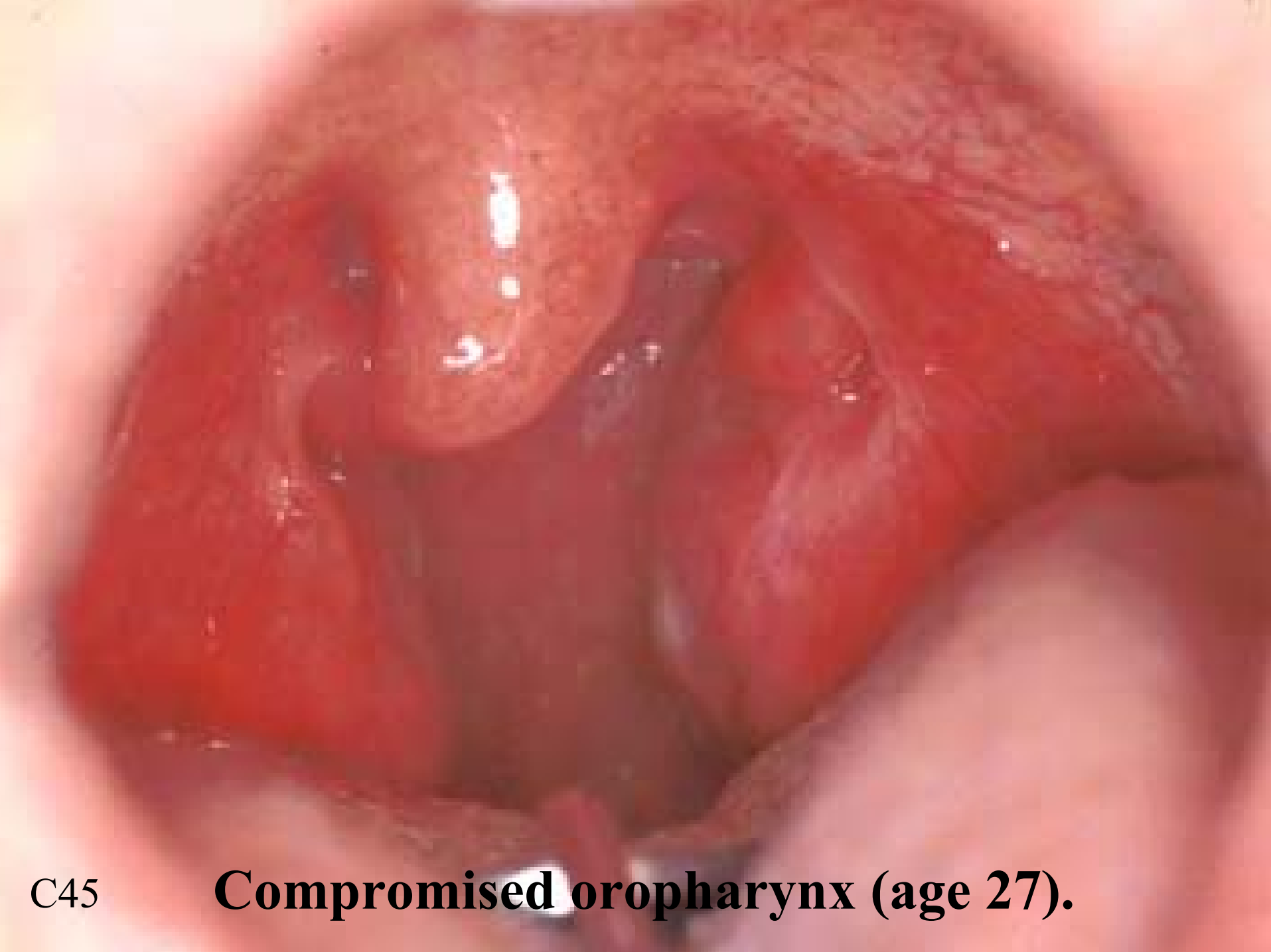
Test yourself. Hold your nose and see what happens.



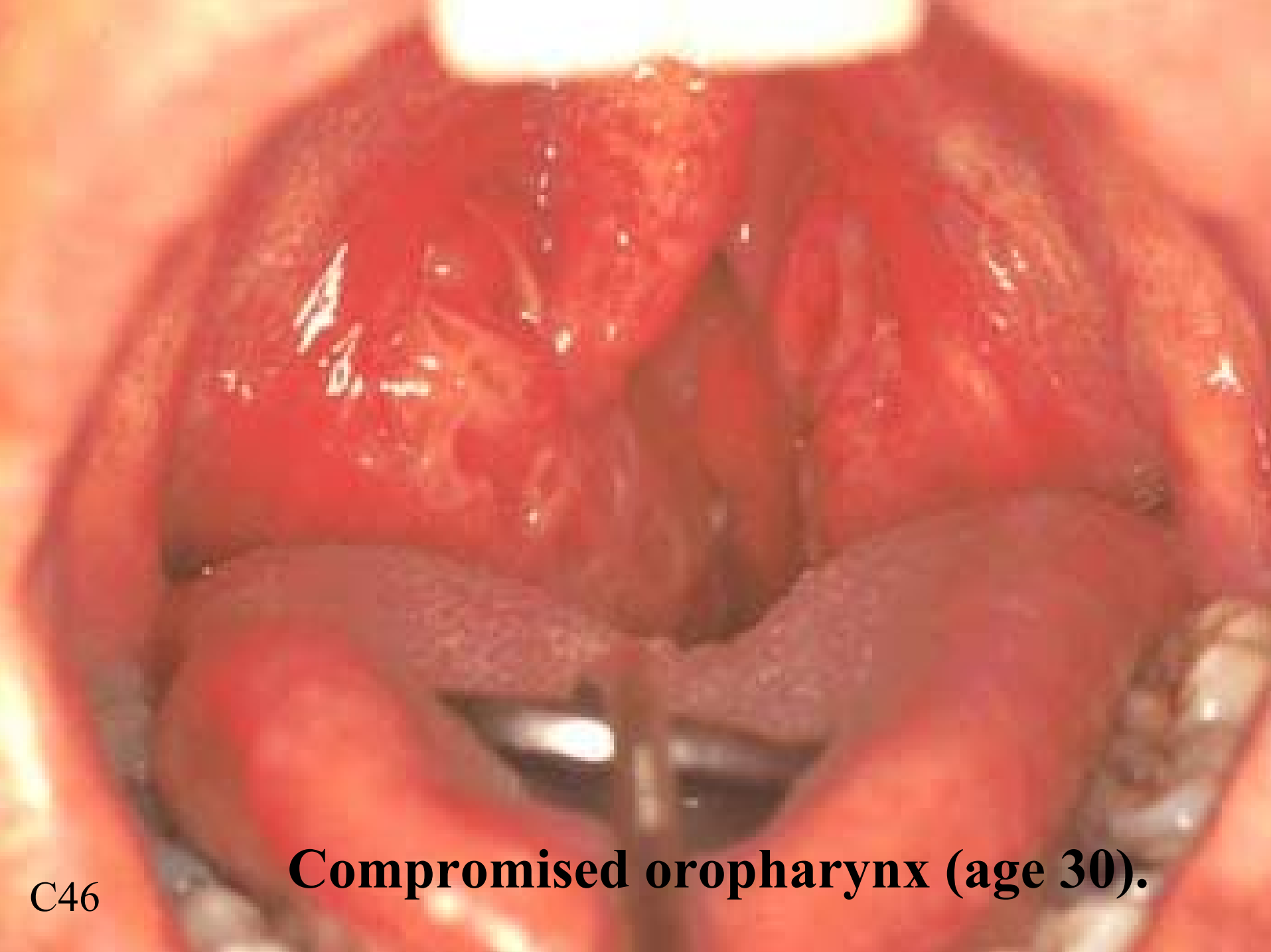
C42 Massive tonsils can also obstruct the airway (Age 12).

C43 Oropharynx of previous child after tonsils removed.

C44 Compromised oropharynx (age 7).



C45 **Compromised oropharynx (age 27).**



Compromised oropharynx (age 30).

C46

Long face syndrome (age 14).

C47

Oropharynx of 14 year old with long face syndrome.

C48

Anterior occlusion. Note spaces between teeth and redness around some of his front teeth. (Result of mouth breathing).

C49

C50

Note his tongue thrust (arrows).

Note long face. Also note shape of mouth - similar to excessive thumb sucker.

C51

C52 Significant malocclusion on previous patient.

C53

Thrust that caused the spacing and malocclusion.

Adult with sleep apnea.
Also has long face.

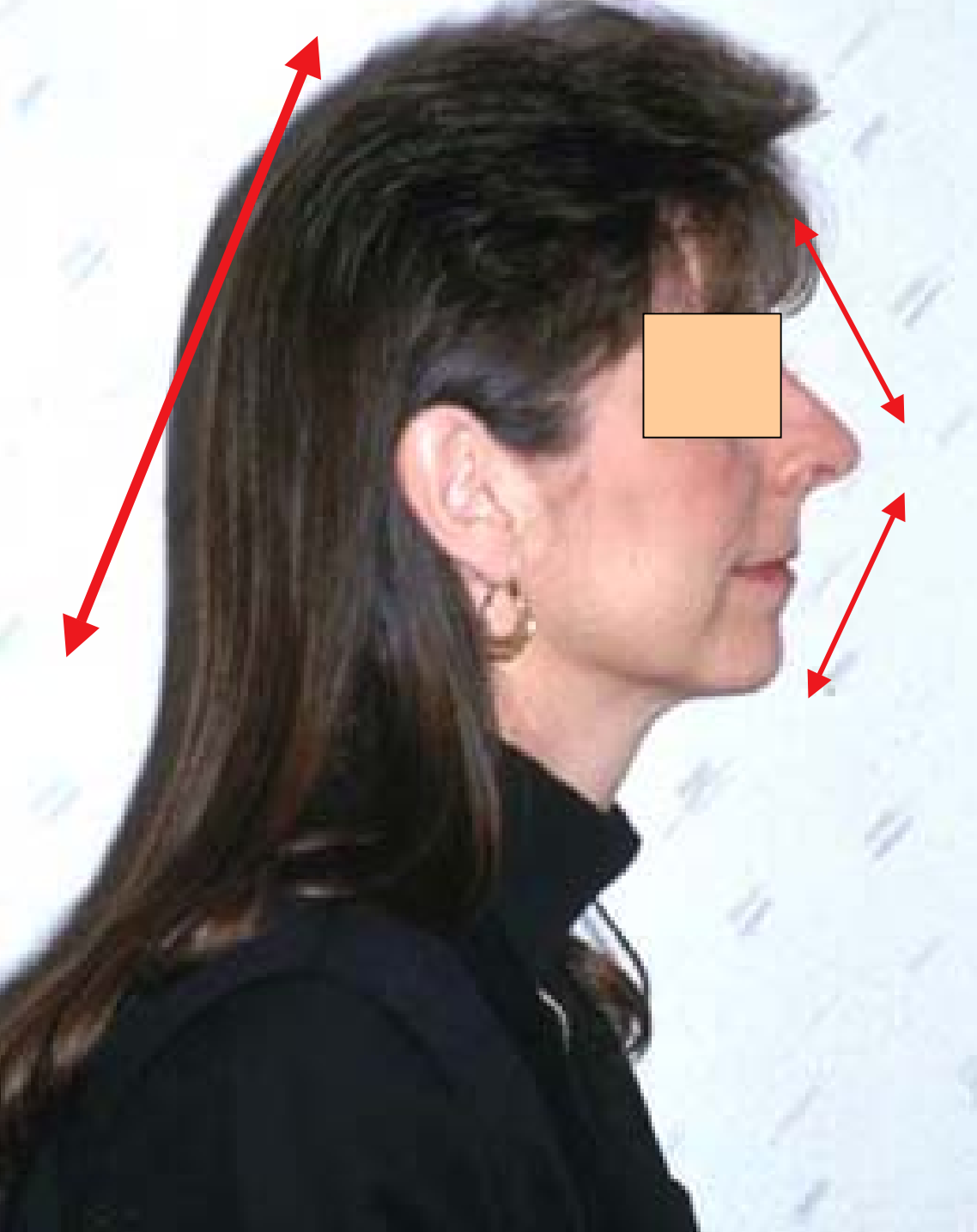
C54

C55

Previous patient - also has large tongue.

Compromised oropharynx and battered throat (redness) from snoring.

C56



Typical forward angulation of head of a person with Long Face Syndrome. Forward angulation of the head makes it easier to breathe - ie - like in CPR

Many times also has pointed prominence of nose.

C57

Long Face Syndrome

- Maintenance of the airway is closely related to craniocervical posture.
- The larynx of the newborn is distinctive in its form, proportion and structure. The tip of the epiglottis approximates the uvula.
- The muscles that maintain the airway are important elements in the motor mechanisms by which we achieve vertical posture.

James Bosma. Functional anatomy of the upper airway during development. Chapter 3, p47-84 in book, Respiratory Function of the Upper Airway. 1988, Marcel Decker.

Contributing factors to illness:

- Not receiving mother's immune system
- Decreased airway size due to:
  - edema, obstructions, genetics, etc.
- Day care contacts
- Hygiene practiced / contaminated pacifiers
- Environmental pollution
- Viral / bacterial outbreaks
- Stress
- Nutrition
- Economics

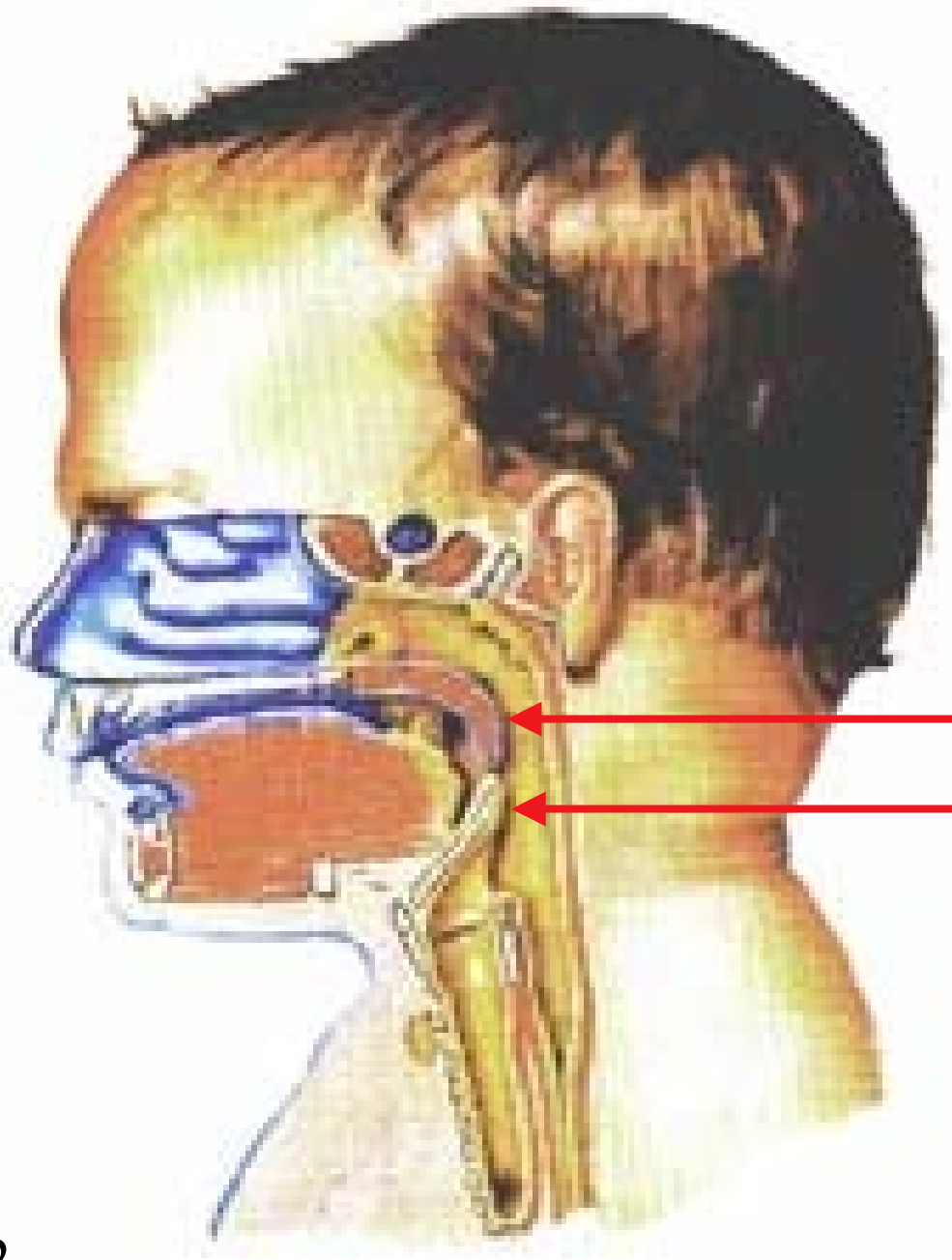
Most common infant allergy foods

- Eggs
- Peanuts
- Milk
- Soy
- Fish
- Wheat

Annick Gaye, 1996 ILCA Conference, KC, MO

SIDS

This is a summary of the full SIDS presentation at another location on this website.



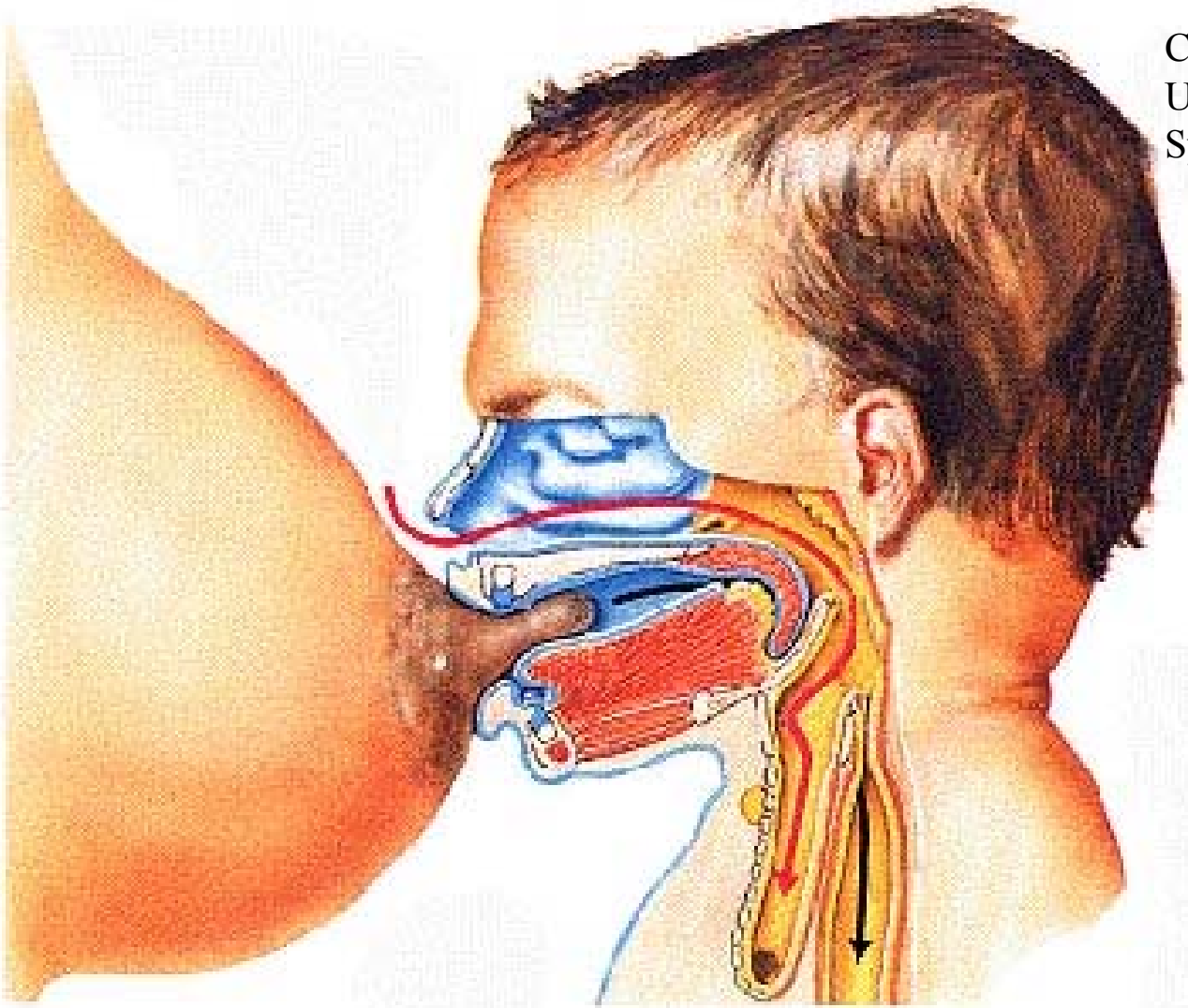
Newborn with epiglottis and soft palate touching during quiet respiration and mouth closed.

Soft palate

Epiglottis

Crelin ES. Development of the Upper Respiratory System, Clinical Symposia, Vol. 28, No. 3, 1976

C62

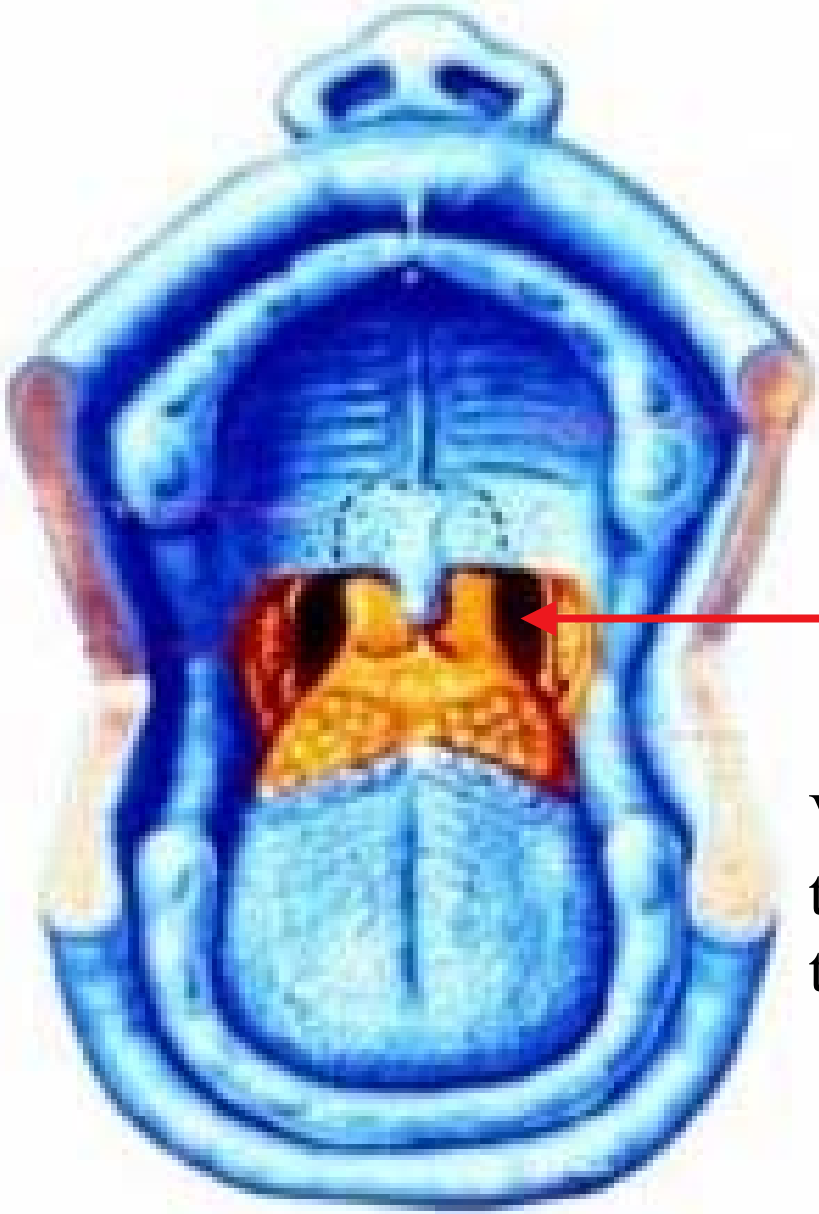


Crelin ES. Development of the Upper Respiratory System, Clinical Symposia, Vol. 28, No. 3, 1976

During the act of breastfeeding, Dr. Crelin states the larynx can be elevated so that the epiglottis can slide up behind the soft palate to lock the larynx into the nasopharynx. This allows the infant to both swallow and breathe at the same time (Obligate).

C63

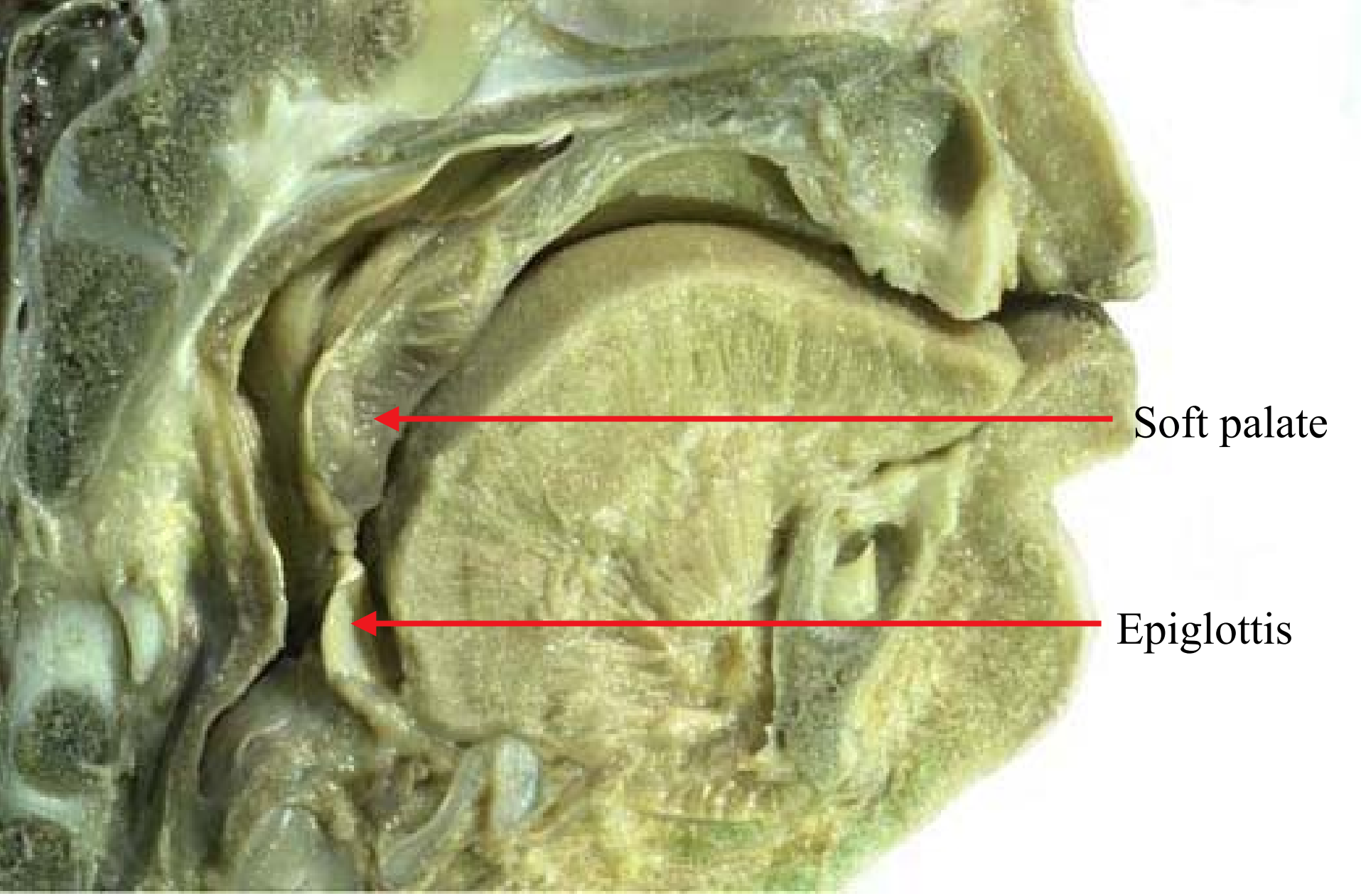
Crelin ES. Development of the Upper Respiratory System, Clinical Symposia, Vol. 28, No. 3, 1976



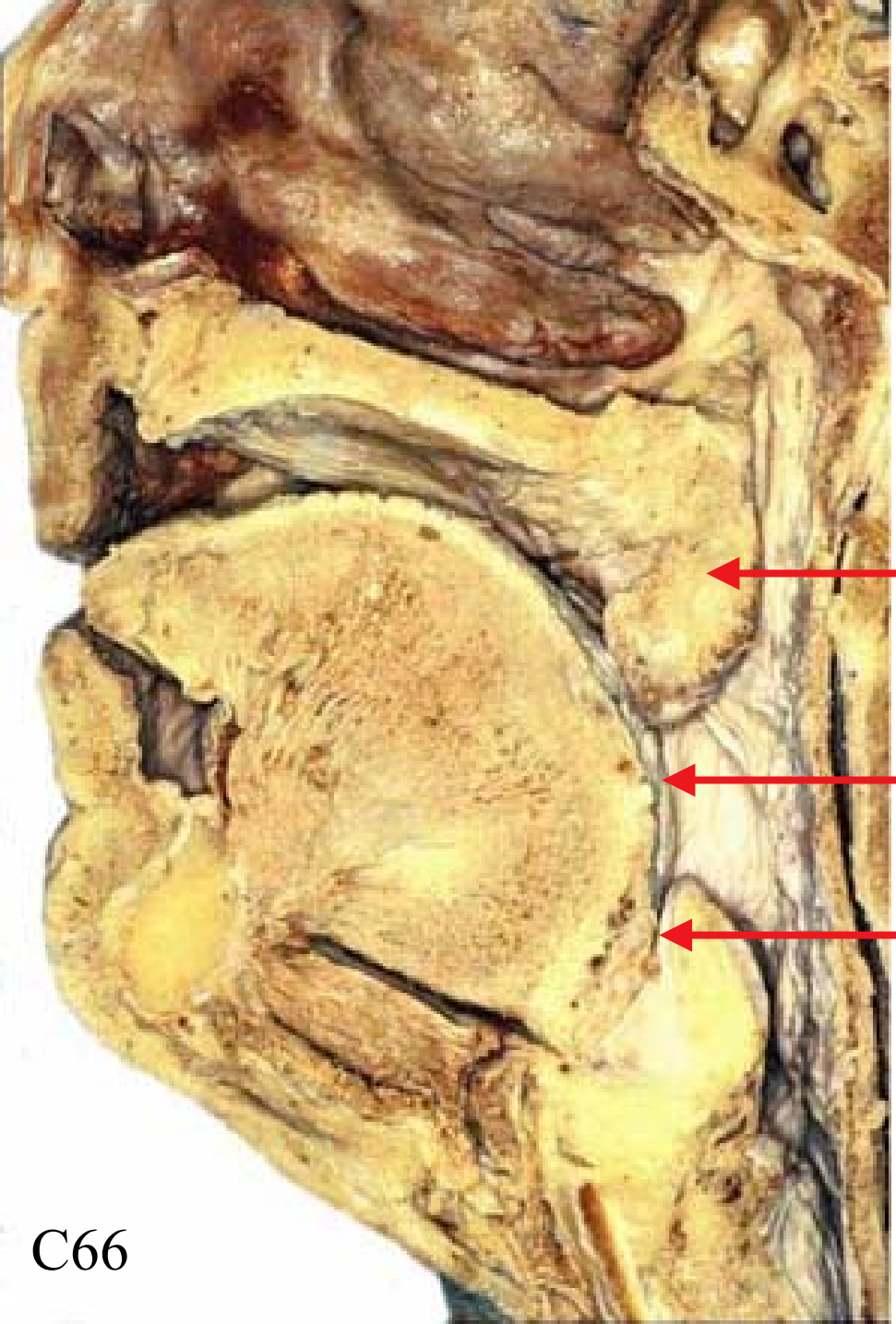
Faucium channel

View looking into the mouth to illustrate the interlocking of the soft palate and epiglottis.

C64



C65 Cadaver dissection demonstrating soft palate / epiglottis relationship as described by Dr. Crelin.



Soft palate and epiglottis never touch in adult humans.

Soft palate

Posterior 1/3 of tongue is now anterior wall of oropharynx

Neck of epiglottis

C66

"Age group 4 to 6 months seemed to represent a transitional period from obligate nasal breathing to potential oral tidal respiration… this transition is important because it reflects a period of potential respiratory instability."

Sasaki CT, Crelin E,S et al. Postnatal Descent of the Epiglottis in Man, March 1977, Arch Otolaryngol, Vol. 103, 169-171

"Maturational descent of the epiglottis, found to occur between 4 and 6 months of age, is verified by cineradiography."

"This period, interestingly coincides with the peak incidence of SIDS, which similarly occurs at 3 to 5 months of age."

Sasaki CT, Crelin E,S et al. Postnatal Descent of the Epiglottis in Man, March 1977, Arch Otolaryngol, Vol. 103, 169-171

"A leading hypothesis for a large proportion of SIDS cases is that SIDS may reflect a delayed development of arousal or cardiorespiratory control ... When the physiologic stability of such infants becomes compromised during sleep, they may not arouse sufficiently to avoid the fatal noxious insult or condition."

AAP position on SIDS: Kattwinkel J, Brooks J, Keenan M, Mallory M, AAP,Changing Concepts of Sudden Infant Death Syndrome: Implications for Infant Sleeping Environment and Sleep Position, Pediatrics, Vol. 105, No. 3, March 2000, 650-656.

"Data supports the hypothesis that prolonged apnea is part of the final pathway resulting in sudden death."

"Study demonstrated that prolonged periods of apnea can occur in otherwise well infants beyond 1 month of age."

Alfred Steinschneider. Prolonged apnea and the Sudden Infant Death Syndrome. Pediatrics 1972;50(4).

"The fear that dummy use might stand in the way of breastfeeding is irrelevant to cot death cases, because most cot death mothers do not breastfeed their infants …***only 10% of Dutch cot death mothers do so!***"

L'Hoir MP, Engleberts AC, vanWell, GTJ et al. Risk and preventive factors for cot death in the Netherlands. Eur J Pediatr. 1998;157:681-688

Anatomic features that contribute to both OSA and SIDS include:

- High palates
- Retruded chins / faces
- Large tongues
- ANYTHING that can interfere with or reduce the flow of air to the lungs.

When finished with this presentation, I recommend you view my full presentation on sleep apnea and SIDS. I strongly believe both SIDS and OSA are very similarly related as to cause.

Possible key to preventing SIDS

Determine facial and oral characteristics that put infants at risk for SIDS.

Otitis media / Pacifiers

Factors Predisposing Bottle-fed Infants to Otitis Media

- Lack of IgA immunity from human breastmilk.
- Bottles propped - infant on back - regurgitates into Eustachian tubes (ETs).

Ruth Lawrence, 1980, "Breast-feeding, a guide for the medical profession."

I add the following factors:

- Confinement of the space in the area of the ETs due to the displacement of soft palate during bottle feeding.
- Altered ability of the tensor palatini to fire properly.

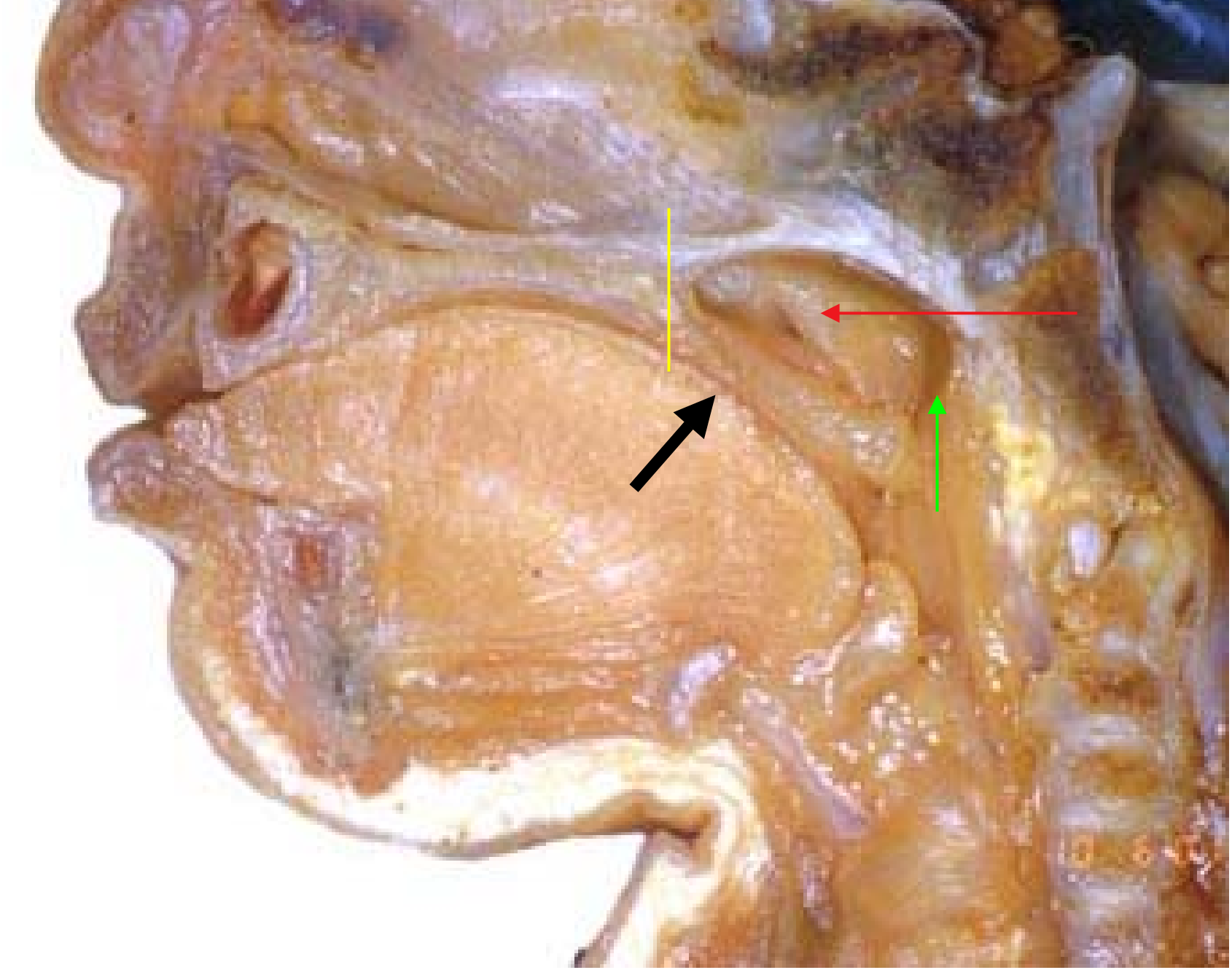
Auditory tube position changes with age

Lumen of tube in child is more horizontal and wider

The pharyngeal opening is:

- Below the level of the hard palate in the fetus.
- Is level with the palate at birth.
- Is 3 to 4 mm. above it at the fourth year.
- Is 10 mm. Above it as an adult

Cunningham's Textbook of Anatomy, 10th Ed., 1964, p814.



C77 Position of the Eustachian tube in the fetus.

Research by Dr. John R. Neil (OB/GYN)

- Discovered that the normal nipple junction distance (NJD) is equal to l or less than 5 mm from the hard/soft palate junction.
- Nipple/breast in and out slide movement during suck is equal to or less than 5mm.
- Normal breastfeeding tongue action has a “rocker” or peristaltic like motion.

Dr. Neil research continued

- NJD is more likely to be abnormal with babies who had attachment problems (Statistically significant)
- 100% of babies who had a piston tongue action had used a bottle teat.
- Of those who had used a teat, 13 had piston tongue actions, and 18 had rocker action.
- Of those who had not used a bottle teat, 0 had piston and 48 had rocker action.

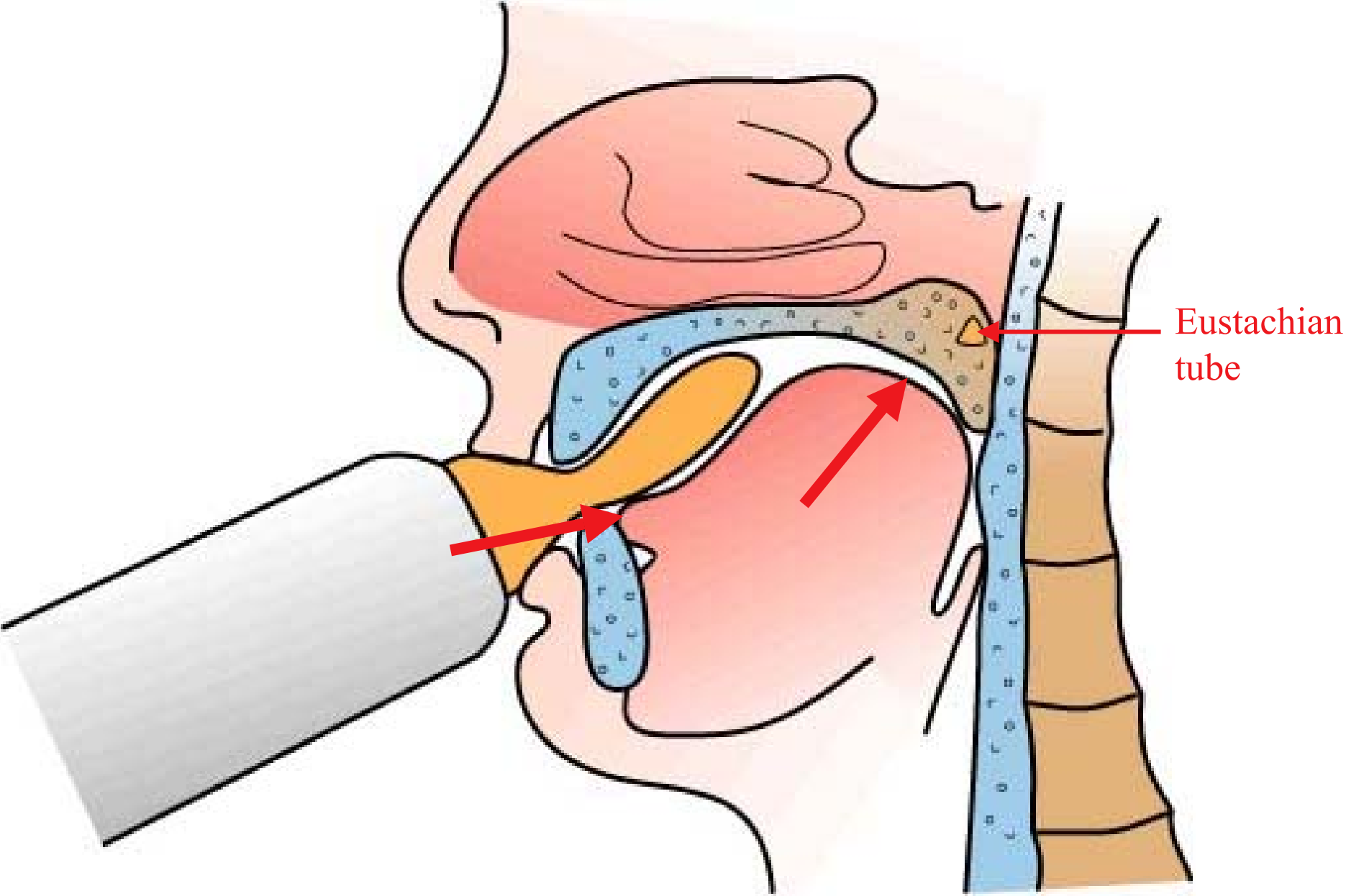
Dr. Neil research continued

- Action of tongue:
  - 90% of normal action is a peristaltic wave like motion that looks like a “rocker”.
  - 10% of normal swallowers have piston like action (may be tongue-tied).
- If baby had poor attachment or sucking problems, found distance from hard/soft palate junction was greater than 5mm.

Dr. Neil research continued

- KEY FINDING:
  - If there was a "piston like" action of the tongue, 100% of the babies had had a bottle of pacifier.
- PACIFIER USERS:
  - Do not do as well on the breast although some babies are better coordinated and can do better than others.
- SUCTION:
  - There is mild suction during breastfeeding to hold the nipple. Stronger suction is needed to suck milk out of the bottle.

Personal conversation, 1996, plus info from others who attended his presentation at ALCA in 1996.



Bottle feeding forces tongue back. This elevates tongue at back, which in turn can block off Eustachian tubes.

C82

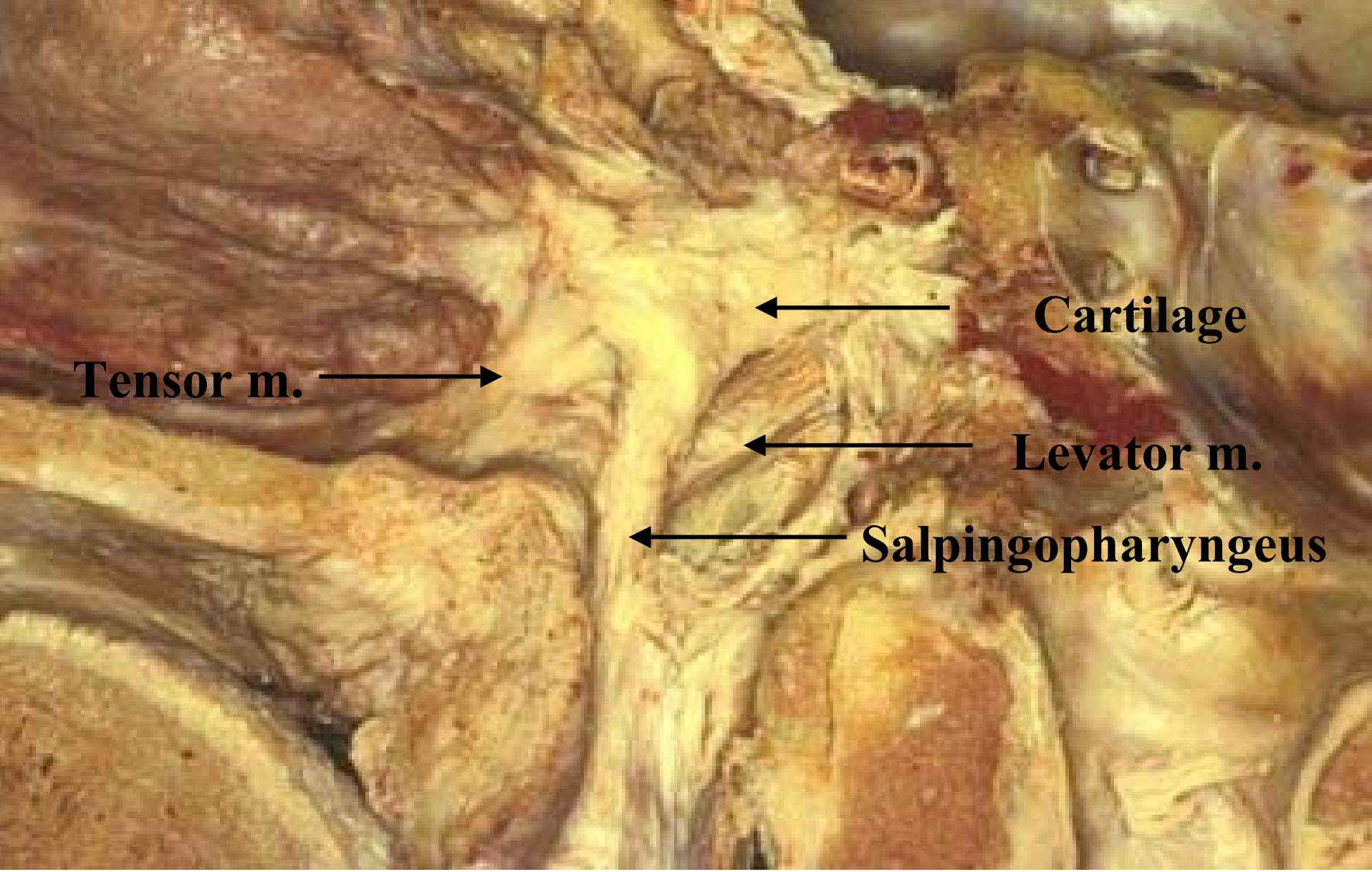
C83

NEVER bottle feed an infant on it’s back like this!

Muscles involved with the opening and closing of the Eustachian tube / Auditory canal

- Lumen **opens** chiefly when attachment of tensor veli palatini muscle pulls wall of tube laterally during swallow.

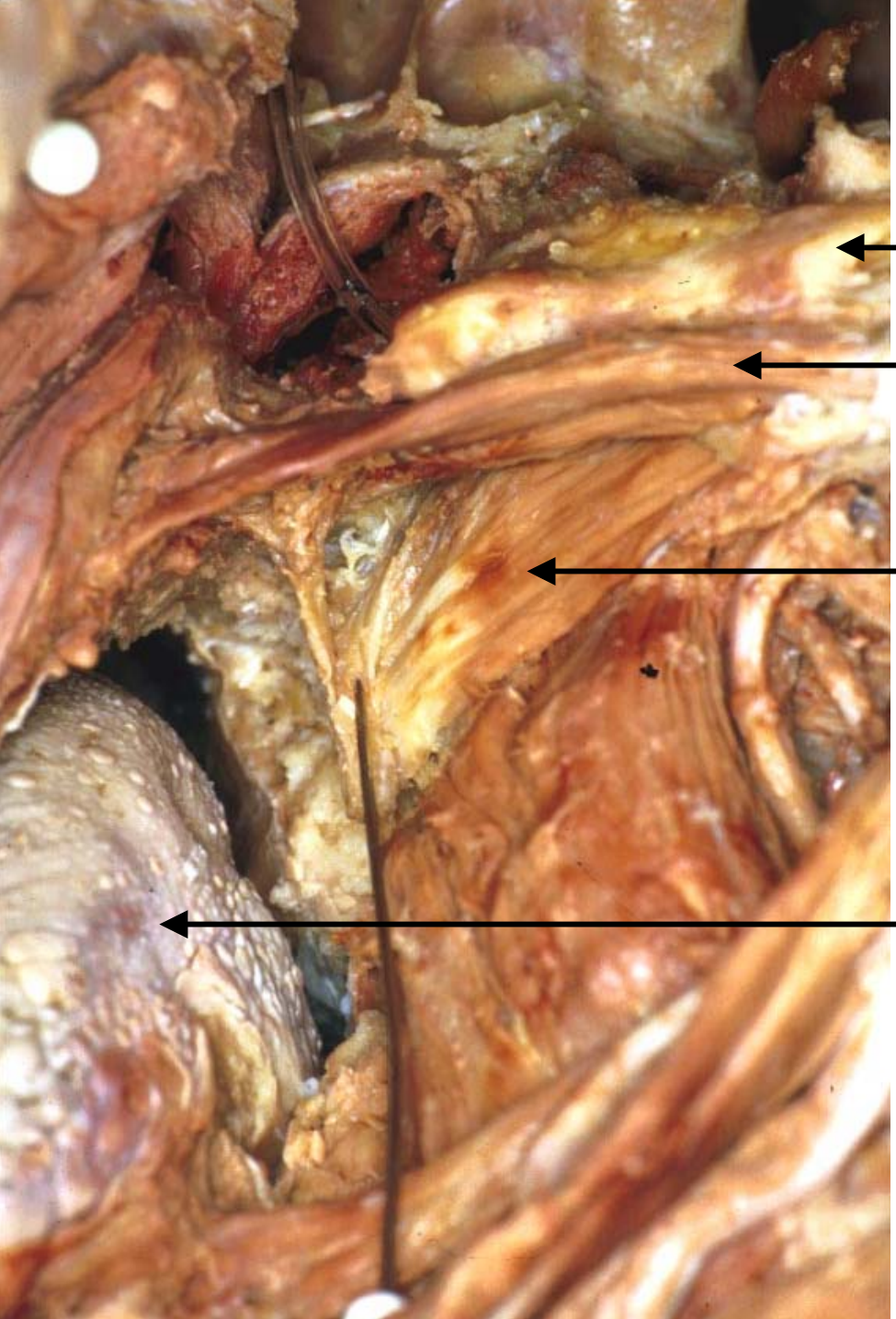
- Auditory tube **closes** by elastic recoil of cartilage, tissue turgidity and tension of salpingopharyngeus muscle.



Close up view of Eustachian tube.

C85

Dissection from behind



Bottle feeding and ear infections

- Study showed a direct correlation between the negative pressure in the feeding bottle and negative pressure in the middle ear.
- In order to simulate breastfeeding, it is necessary to avoid a vacuum.
- More than 30 million visits for otitis media transpire annually. The average percentage of infants who develop otitis media by 1 year is 50%.

Brown CE, Magnuson B. On the physics of the infant feeding bottle and middle ear sequela: Ear disease in infants can be associated with bottle feeding. International J Pediatric otorhinolaryngology 2000;54:13-20.

Brown article continued:

- When using conventional feeding bottles, negative pressure is generated in the oral cavity, as well as, in the bottle when fluid is removed by sucking. It is suggested that this sequence of events may lead to secretory otitis and it's accompanying consequences.
- As vacuum increased in the bottle so did the resistance to flow, making the child suck even harder when trying to evacuate the bottle.
- As the bottle nipple collapses the baby will break its seal at the nipple and swallow air along with liquid into the stomach.

Brown article continued:

- As soon as the vacuum became great enough, the pressure in the middle ear followed the same course with a rapid negative deflection.
- During normal breastfeeding, breastmilk is ejected in repeated small portions when oxytocin stimulates milk release via the myoepithelial cells in the milk glands and ducts. This causes a positive pressure within the gland and there is no negative pressure build up.

Brown article continued:

- Middle ear evacuation and subsequent locking of the eustachian tube, as a result of the intensified and forceful sucking against the increasing vacuum in traditional bottles, may also be expected when sucking on pacifiers, toys, thumbs, and similar objects.
- The study clearly shows a direct correlation between the negative pressure in the feeding bottle and negative pressure in the middle ear.
- A must read article for everyone.

Pacifiers and otitis media.

- The children who had used a pacifier had a greater risk for having recurrent attacks of acute otitis media than those who had not used a pacifier.
- Mouth breathing was significantly associated with acute otitis media, as was open bite.
- A pacifier could cause mechanical blocking of the of the nasopharynx by raising the soft palate and impairing the functioning of the eustachian tubes.

Niemela M et al. Pacifiers and dental structure as risk factors for otitis media. Intern J Pediatr Otorhinolaryng 1994;29:121-27.

Acute Otitis Media (AOM) study:

- Studied 484 babies under the age of 18 months.
- Infants who did not use pacifiers had 33% fewer episodes of AOM.
- Conclusion: Pacifiers use appears to be a preventable risk factor for AOM in children.
- Excellent article on pacifiers and otitis media.

Niemela M, et al. Pacifiers as a Risk for Acute Otitis Media: A Randomized Controlled Trial of Parental Counseling 2000, Pediatr;106(3):483-88.

Pacifiers and AOM

- Pacifier use increases the risk of recurrent attacks in children 2 to 3 years old attending a day care center by a risk ratio of 2.9.

Niemela M et al. A pacifier increases the risk of recurrent otitis media in children in day care centers. Pediatrics 1995;96:884-88.

Pacifiers and AOM

- Use of a pacifier is a significant risk factor for recurrent AOM and suggest that pacifiers should be used only during the first 10 months of life, when need for sucking is strongest, and AOM is uncommon.

Niemela M et al. A pacifier increases the risk of recurrent acute otitis media in children in day care centers. Pediatrics 1995;96(5):884-88.

Incidence of AOM

- The numbers of visits made to office-based physicians in the US at which the principal diagnosis is otitis media has increased significantly in recent years, and was estimated in 1990 to be about 24.5 million - i.e. - about 2.5 times more than in 1975.

Schappert SM. Office visits for otitis media: United States, 1975-1990. Vital Health Stat. 1992;214:1-9.

Expense of AOM

- Otitis media places a significant economic burden on both parents and the health care system.

Gates GA. Cost-effectiveness considerations in otitis media treatment. Otolaryngol Head Neck Surg. 1996;114:525-30.

Costs arising from otitis media

- The average annual cost per child younger than 2 years was $1040.
- The cumulative costs from age 6 months to 7 years was $2549.
- In Finland (population 5 million) OM gives rise to a total annual cost of $138 million.
- OM leads to considerable expenses and even expensive preventive measures would be cost-effective.

Niemela M et al. Costs arising from otitis media. Acta Paediatr 88:553-6. 1999

AOM and learning

- Recurrent AOM may even lead to long-term sequelae in the form of learning difficulties, especially in reading and mathematics.

Luotonen M, et al. Recurrent otitis media during infancy and linguistic skills at the age of nine year. Pediatr Infect Dis J. 1996;15:854-58.

Need for sucking

- The physiologic need for sucking is most prominent during the first 6 months of life, after which pacifier use only tends to be a habit that brings a feeling of security.

Maekawa K et al. Developmental change of sucking response to taste in infants. Biol Neonate. 1991;60(Suppl 1):62-74.

Breastfeeding longer reduces need for pacifiers.

- Children who are weaned from breastfeeding early use a pacifier more often than those who are breastfed longer.

Victora CG et al. Pacifier use and short breastfeeding duration: cause, consequence, or coincidence? Pediatrics 1997;99:445-53.

Breastfeeding reduces the risk of AOM

- Exclusive breastfeeding for 4 or more months protected infants from single and recurrent episodes of otitis media.

Duncan B et al. Exclusive breastfeeding for at least 4 months protects against otitis media. Pediatrics 1993;91:867-72

Pacifiers and cariogenic microbes

- A pacifier has been found to be associated with a higher carriage rate of cariogenic microbes.

Ollila P et al. Risk factors for colonization of salivary lactobacilli and candida in children. Act Odontol Scand. 1997;55:9-13.

Pacifiers and dental caries

- A pacifier have been found to be associated with a higher development of dental caries.

Ollila P et al. Prolonged pacifier-sucking and use of a nursing bottle at night: possible risk factors for dental caries in children. Acta Odontol Scand. 1998;56:233-37.

Cup feeding as an alternative

- Cup-feeding was found to be an effective alternative to bottle feeding nutritional supplements to newborns.
- Researcher found that there was no significant difference between the two groups, which means that giving breastfeeding newborns nutritional supplement by cup is a safe alternative to administering it by bottle.

Cynthia Howard, Ruth Lawrence et al. Physiologic stability of newborns during cup-and bottle-feeding. Pediatr 1999;104(5):1204-7

Abfractions

There are two articles written on this subject located under “articles” elsewhere on this website.

Abfraction

Due to the stresses resulting from biomechanical loading forces exerted on the teeth (static, as in swallowing and clenching or cyclic, as in chewing) both enamel and dentin can chip or break away. This loss of tooth substance, which shall be termed Abfraction, is dependent on the magnitude, duration, direction, frequency, and location of the forces. These abfractive lesions are caused by flexure and ultimate material fatigue of susceptible teeth at locations away from the point of loading.

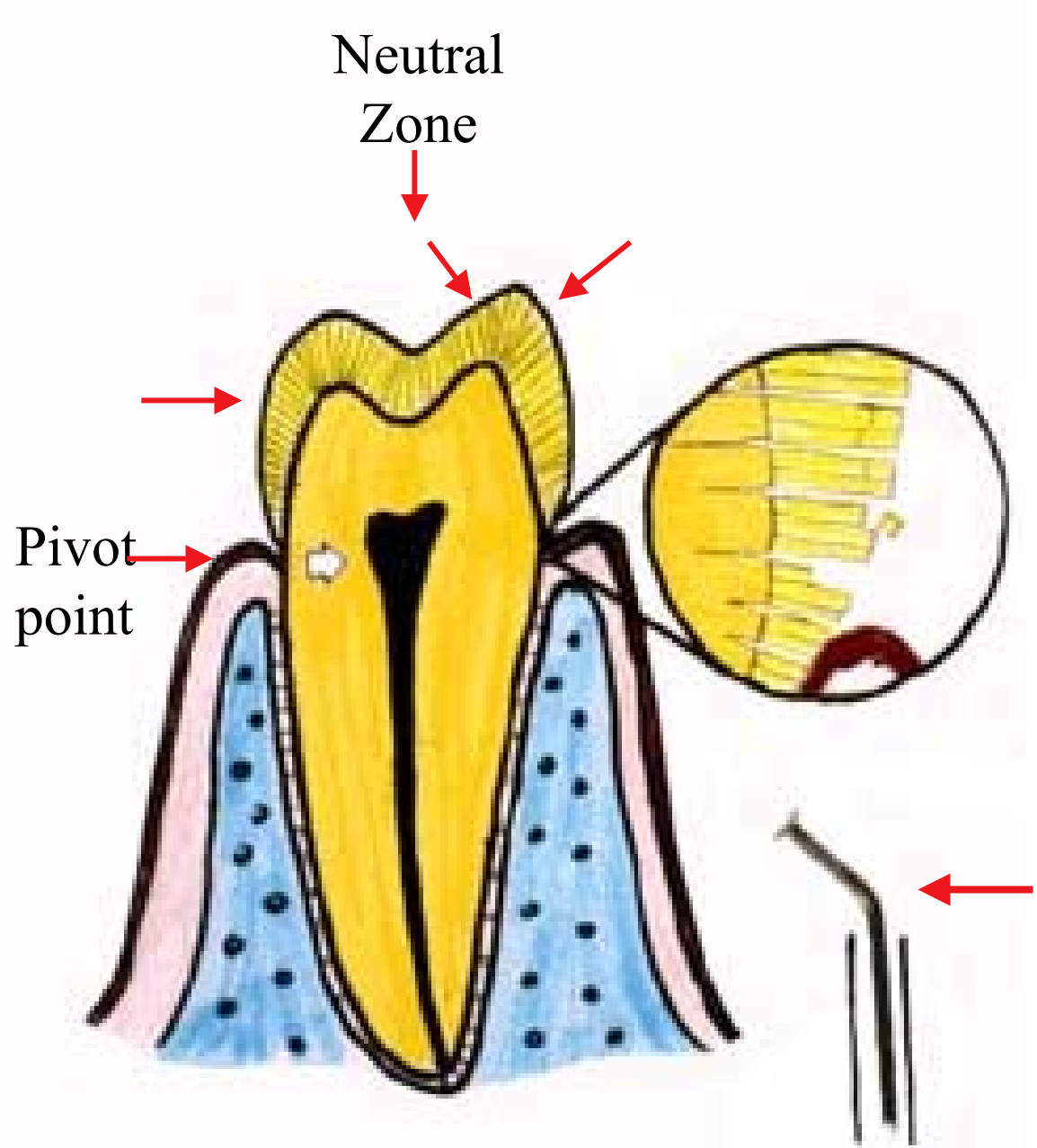
Grippo J. Abfractions: A new classification of hard tissue lesions of teeth. J Esthetic Dent. Jan/Feb 1991:14-18

Abfractions: in summary

Abfractions are due to the traumatic lateral forces created by either a malocclusion or a tongue thrust - or both.

The reasons for malocclusions and tongue thrusts were explained earlier in this presentation.

The reason abfractions are rarely found on prehistoric teeth is due to the fact that prehistoric humans did not have any other choice of nurturing their young except for breastfeeding.



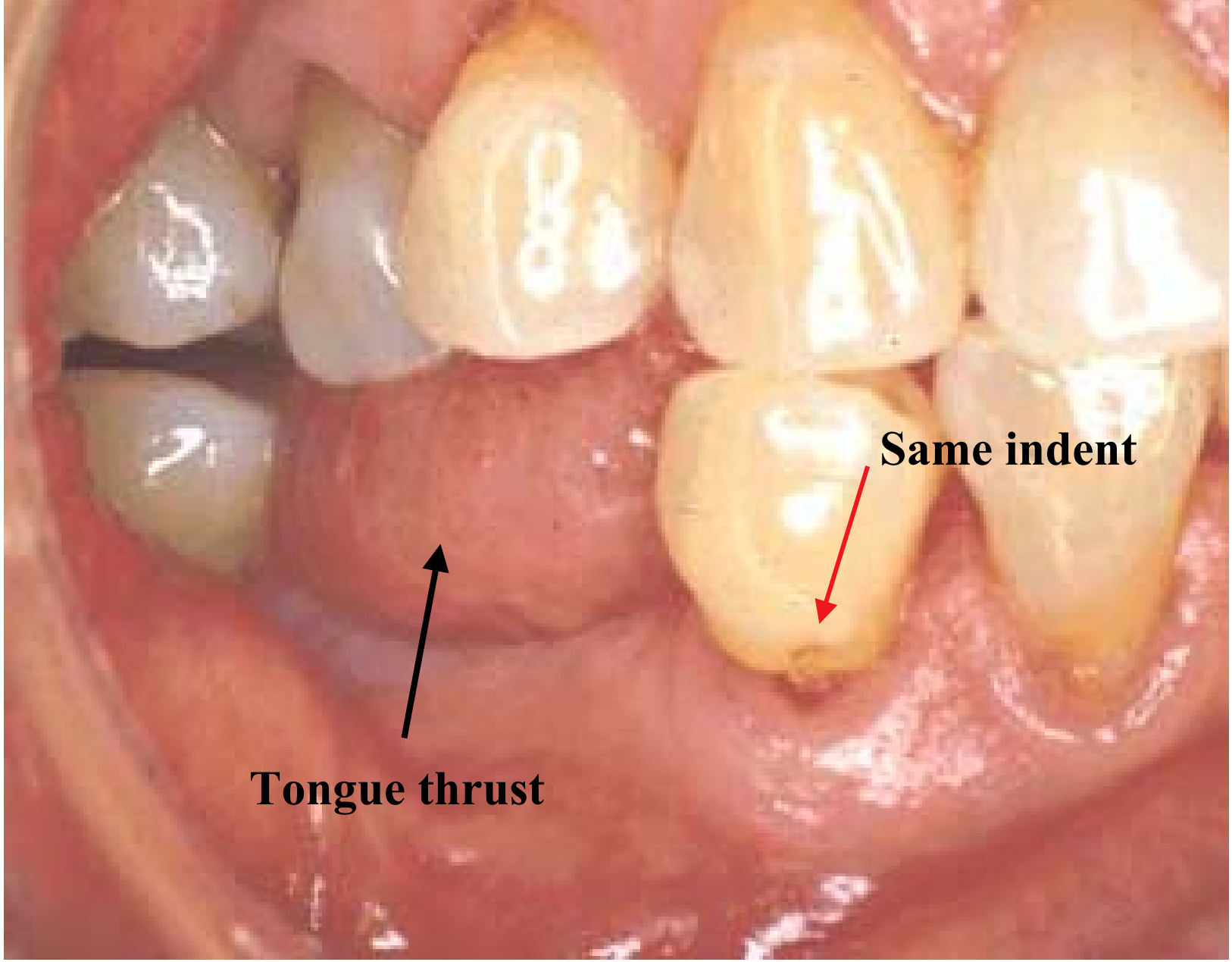
Drawing I did many years ago explaining how traumatic lateral forces that cause an abfraction.

If you bend a nail back and forth like this it will eventually break over time.

C108

Extracted tooth with abfraction. Note size of abfraction and marked indent. Tooth was unrestorable because of sub gingival depth of defect and patient's desire not to spend any money on the tooth.

C109



C110 Same tooth prior to extraction. Abfraction TOTALLY SUBGINGIVAL. Tooth brushing could not have caused it!

C111

No decay is present on the tooth

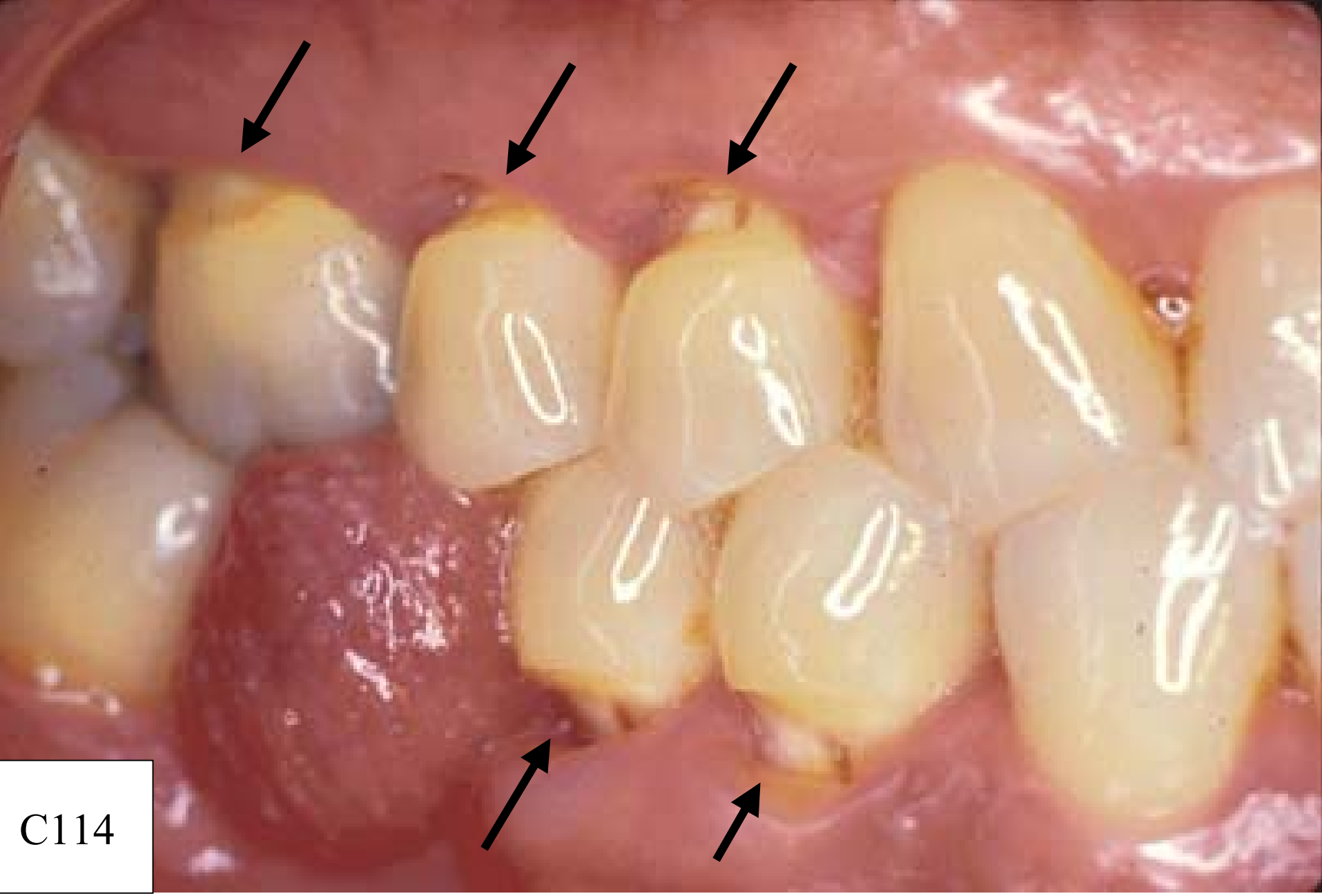
Abfraction as seen on x-ray

Abscess is result of abfraction

C112

The abscess is a result of the abfraction

Abfractions are seen on a daily basis in dental offices today. Abfraction on right was only tooth I could find during research at Smithsonian.



Similar to other case but with multiple abfractions. Note tongue thrust.

C115 Abfractions on inside. Impossible for tooth brushing to cause.

C116 Multiple abfractions. Note different angulations of each defect. Tooth brushing could not have caused these defects. The abfraction was so deep that one tooth actually fractured in half.

C117

These abfractions were due to the traumatic lateral forces created by the tongue thrust.

Breastfeeding may help reduce obesity

- After adjusting for potential confounding factors, breastfeeding remained a significant protective factor against the development of obesity.
- Since obese children have a high risk of becoming obese adults, such preventive measures may eventually result in a reduction in the prevalence of cardiovascular disease and other diseases related to obesity.

Rudiger von Kries et al. Breast feeding and obesity: cross sectional study. BMJ 1999;319:147-50

Human breastmilk kills cancer cells

- Catharina Svanborg and associates at Lund Univ. in Sweden discovered that a component of human breast milk compels cancer cells - every type of cancer cell tested - to die.
- The killer turned out to be the protein alpha-lactalbumin. It helps to produce lactose, the sugar found in milk.
- Their lab is the only non-American lab with American Cancer Society support.

Human breast milk kills cancer cells.
Discover Magazine, June 30, 1999.

"Knowledge is most meaningful when shared with others."

Brian Palmer, D.D.S.

Recommendations

- Add breastfeeding courses to the curriculum of all health care schools.
- Educate current health care providers.
- Educate the public via the media.
- Encourage breastfeeding in public places.
- Encourage large corporations to have child care facilities for their employees
- Have insurance companies reimburse for breastfeeding support services.

For Better Health!

Please share this site with others if you feel it has any value.

Presented by:

Brian Palmer, D.D.S

Kansas City, Missouri, USA

Return to commentary

C123