

Mouth Breather

Round Table

Moderator: **Antonio Carlos Cedin**

Participants: **Gabriela D. Carvalho, Lilian Krakauer,
Nelson A. Rosário Filho and Presciliana de Araújo**

Antonio Carlos Cedin. *I would like to stress that this theme involves the multidisciplinary approach of the child who is a mouth breather. There are controversies among the professionals involved in the child's care, so this discussion will contribute to a synchrony among the specialists, providing a better treatment for these cases. As participants, we have Nelson, a Pediatrician and an immunologist, Lilian, a Speech Therapist, Gabriela, an Orthodontist and Presciliana, a Physical Therapist. The pediatrician is the first professional to diagnose mouth breathing, and also the one who provides the initial care - in the delivery room and in the nursery. Let us start with Nelson: a newborn is brought to your office and the mother is concerned about a respiratory difficulty. How do you approach such cases? How do you assess them? How do you see this problem and how do you manage them?*

Nelson A. Rosário Filho – I would say that the mother usually comes to the pediatrician and often to the specialist because she feels that her child has a noisy breathing. The child has a nose like a saddle, really flat, and she thinks that her baby has respiratory difficulty because it makes noises when breathing and seems to be snoring. The child suckles adequately, does not stop suckling, has no sleeping problems, but has a noisy breathing. As a result, the mother will very often use topical nose drops, even non-vasoconstrictors, because she thinks the child has an obstruction. This is a simple and transient problem. Sometimes it becomes a medical problem after an excessive use of saline and antiseptic nose drops. The first point we have to clear is whether it is disease or not. In my opinion this is an important role for the pediatrician. The next point is to search for other causes for a nasal obstruction such as congenital malformations, problems resulting from the passage through the birth canal or the onset of allergic diseases.

Antonio Carlos Cedin – *Lilian (Speech Therapist): is there any special recommendation for the care of breastfed or bottle-fed babies? Are there any advantages in using either one or the other? Do you recommend any special bottle nipple?*

Lilian Krakauer – Actually, breastfeeding is the most indicated. It stimulates the muscular exercise that will provide an adequate face development. The face will be more harmonious and the growth, more adequate. The ideal is to breastfeed the babies. Gabriela is more experienced in this area.

Antonio Carlos Cedin – *Absolutely. In other words, bottle-feeding should be an alternative to be used only when there is no possibility of breast-feeding the baby. The ideal is to breast-feed the babies. As an orthodontist, Gabriela can tell us a little about the consequences of bottle-feeding on the facial development and growth. She wrote a very interesting book on the subject.*

Gabriela D. Carvalho – I work as a member of the interdisciplinary team in the management of the mouth breather and I am a specialist in oral and maxillofacial surgery and traumatology. I have been working exclusively with mouth breathers, of all ages, for over 20 years. Of course this also means that I have been working with pediatricians, otorhinolaryngologists, speech therapists, physical therapists, and even with nutritionists. I think this is an excellent opportunity for us to have a new interdisciplinary approach on the subject. It is very rare to achieve a solution by working alone. We always need, at least, an assessment by other professionals. Working as a team, we will reduce the duration of the treatment; a faster recovery means that there will be less suffering for the patient. I enjoy the privilege of receiving patients that have already been assessed by a pediatrician and by a otorhinolaryngologist. I know that all the pathological obstacles that make breathing difficult have already been removed, and it is up to me to remove the mechanical obstacles of hard tissues, bones and teeth. I have to - and mind me, this is difficult, as we dentists are obsessed by the occlusion and the esthetics of teeth - work on the space in the oral cavity. It should be big enough for the speech therapist to position the tongue, which is generally hypotonic and poorly positioned. We have to increase the nasal base, even when the pathological causes have already been removed, because the growth and the development of the facial structure has already been altered. When the nasal base is narrow, there isn't enough space for the air to flow and consequently, patients continue breathing through their mouths.

I emphasize the importance of breastfeeding because I could not understand why we had so many mouth breathers until I saw some statistical data about the increase on the use of bottles and pacifiers. We know the Hotz physiological balance; the internal retention system, represented by the tongue, should be balanced with the external system represented by the cheeks, by the buccinator muscles and by the perioral muscles. This balanced is important not only to maintain occlusion but also to maintain the physiological development of the whole face. But this does not happen when the child is bottle-fed. The milk is extracted from the bottle by negative pressure formed as it is sucked; there is no specific work of the buccinator muscles for removing the milk. When the infant is suckling, a peristaltic wave is created by the tongue on the nipple. This will cause a three-fold increase in size in the baby's mouth and the milk is drawn. So this is the first step, the basic measure all professionals in the health area should stimulate in order to prevent the syndrome of mouth breathing.

The orthodontists have to correct bone factors, the teeth and bones. We perform the maxillary disjunction in small children, two and a half to three years old, because we need some support for our appliance. As soon as we have the first molars, we can place the appliance that will increase the maxillary bone's transversal

diameter. We know that although this structure is consolidated when the child is born, the process is painless, and with just a little pressure, the bone will separate and the nasal base will be increased in a short period of time.

But as dentists, due to our background, our line of reasoning tends to be very mechanical: we remove caries in a mechanical way, we restore teeth in a mechanical way, we correct teeth in a mechanical way, and very often, periodontal processes such as tartar scraping, are also mechanical procedures. Thus, according to Dr. Ricketts, it is difficult to think in terms of biology, function... and it is essential to think about the breathing function when we care for a mouth breather.

Antonio Carlos Cedin – *Nelson, a child comes to your office with respiratory difficulty and is already 3, 4 years old. What would be your initial approach?*

Nelson A. Rosário Filho – Basically, when you examine a mouth breather, a child with nasal obstruction, you already start considering the possible differential diagnoses of the anatomical causes of the respiratory difficulty; adenoid hypertrophy, nasal septum deviation, for example, should be differentiated from an obstructive rhinitis that is an allergic condition. The allergic patient has clinical symptoms that can easily characterize this diagnosis. Sneezing, coryza, nasal pruritus, snuffling are typical in the allergic patient. A patient with allergic rhinitis is classified in a simplistic way into a group with obstruction when nasal congestion is the main feature, and into a second group when sneezing and coryza are the main clinical manifestations. We are more interested in the patient with nasal obstruction as an important component of this allergy process. The first approach is to rule out an anatomical problem, a septum deviation or some other cause, and then work on the clinical diagnosis of allergic rhinopathy.

Antonio Carlos Cedin – *In other words, you can have the appropriate treatment when the problem is properly diagnosed. If there is a facial dystonia, an abnormal tongue positioning, you will refer the patient to a speech therapist for rehabilitation. I would like to know a little about the speech therapist's approach in such cases.*

Lilian Krakauer – I think it is important to take into consideration that oral breathing, as you said some people call it, will result in an imbalance of all orofacial functions. In order to breathe through the mouth, the tongue's position must change, so that the air can flow through the mouth. This change in the position of the tongue will lead to a change in the position of the mandible. Consequently, this will generate an imbalance in the orofacial musculature that can cause a flaccidity of the mandibular elevator muscle and a mastication unbalance. It is well known that mastication is one of the most important functions for the symmetrical growth of the face. This means that the sooner we start working on these children, the lesser the problems we will find.

Antonio Carlos Cedin – *At what age do you start?*

Lilian Krakauer – I work with children that are three, three and a half years old. When I say that I work with them, it does not necessarily mean a weekly therapy, as in the regular speech therapy. It is more like a follow-up with the family and with the other professionals that are working on this child.

Antonio Carlos Cedin – *Considering the global postural alteration, I would*

like to ask Presciliana, a physical therapist, what would be the right age to start working, advising and eventually manipulating this child?

Presciliana de Araújo – Younger children, between 2 and 3 years of age with a slight head retraction, can resist manipulation of the cervical region, which is sensitive. Only when they are older, will they cooperate and allow procedures that correct the head's position. During this interval, however, undesirable postures are established, making correction more difficult. It is important to remember that the position of the head is fundamental for several aspects of the development of the motor system and of the motor coordination, as well as for the balance between head, chest and pelvis masses. In all, the good body alignment is essential for an efficient breathing.

Antonio Carlos Cedin – *As Gabriela said, the management of a child that already has an orthopedic problem, an alteration of the facial growth, can start when this child is about 3 years old. Although the teeth are not permanent at this age, one can use appliances to expand the mouth so that the tongue can settle more adequately and the child can have a nasal breathing. The success in treating a mouth breather depends on the correct diagnosis of the problem and on the integration of the various professionals involved in its solution. We have to know the field of activity of each professional in order to correctly guide the treatment. From the diagnosis on, all professionals should be involved in a joint treatment, whatever the age of the patient.*

The take-home message is: first, a correct diagnosis by all the professionals, and second, the professionals should act together. The pediatrician is often the first professional to act. He is the specialist to whom the parents take their child and from then on, he will refer them to other professionals that will be necessary for the appropriate management of the problems. The treatment of the mouth breather is more efficient with an early diagnosis and with the well-timed intervention of these specialists. Thank you.