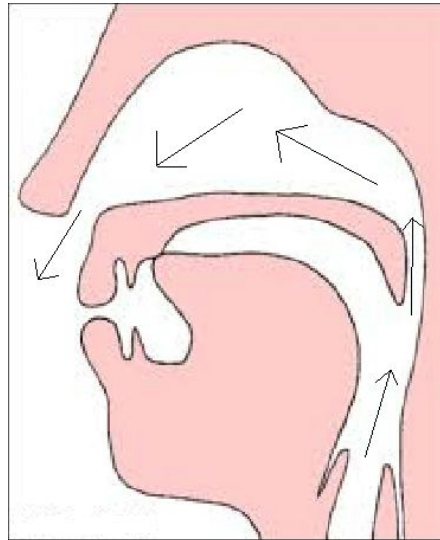


Active Nasal Fricatives

What is an Active Nasal Fricative (ANF)?

ANFs can be used as a compensatory articulation for children with cleft palate and velopharyngeal dysfunction but are also apparent in children with no structural difficulties. In both cases, the sound has been mislearned and is resolved by speech therapy not surgery. An ANF is produced by making an articulatory stop in the oral cavity (usually alveolar or velar) whilst actively lowering the soft palate and directing the air through the nose.



What does it sound like?

ANFs can sound similar to nasal turbulence or nasal emission and replace the target consonant sound. Target consonants are most often fricatives. They can affect the overall tone of the child's speech so it is important to rate the child's resonance using a sample free from ANFs.

How to diagnose an ANF

Listen to the child's speech – are other consonants and vowel sounds produced clearly with no evidence of hypernasality?

Listen to sentences with no fricative targets:

- Mummy came home
- Daddy painted a door
- Baby boy baby boy

- Lola would not eat her cake

Gently nip the child's nose as you ask them to say the target sound e.g. 'ssss'. If an active nasal fricative is used the child will usually block the sound in their nose or release an oral stop e.g. 'd'. If the 's' sound is produced accurately with nose holding of velopharyngeal dysfunction (a passive nasal fricative).



Therapy Tips for Active Nasal Fricatives

When providing therapy for an ANF both psycholinguistic and articulatory approaches are recommended. The use of a 'novel' sound is the psycholinguistic element whilst modelling and describing the placement and manner of the sound follows a traditional articulation method. This will need careful explanation to parents and carers who will be practicing the sound with the child.

1. Introduce a novel sound:

- a train slowing down 'tttssss'
- a long 't' sound
- a baby snake 'th'
- a leaky balloon (voiceless bilabial fricative)
- a smiley 'sh' sound

2. Use a picture or symbol that is only associated with this sound. The child may want to help naming this novel sound. The use of phonics/letters may confuse the child as they may associate this with their ANF sound.

3. Practice in isolation. Talk about how it is a 'mouth' sound and encourage the child to feel the air coming out of their mouth. They child may need to practice oral blowing first to get used to feeling the air coming out of their mouth and then associating this with the novel sound. You can do this by blowing bubbles on a wand or feathers off their hand. Repeated drills of this sound in isolation would be beneficial.

If the child is struggling to produce the novel sound in isolation it may be helpful to gently pinch the child's nose when practicing in therapy. They may be able to achieve an oral sound with nose holding first. When the child is confident doing this, encourage them to let go of their nose whilst making the sound. Ensure accuracy is maintained before moving onto the next step.

4. Use a picture with a mouth and a nose. This will help build the child's awareness of oral and nasal sounds. They can choose which picture they heard the sound coming from (mouth or nose) to rate the therapists and their own productions. This can also be useful for discrimination activities. The therapist should attempt to produce an example of the child's ANF for this activity.

5. Once accurate in isolation, blend the novel sound with vowels. CV and VC practice would then be indicated. If the child reverts back to using an ANF remind them to use their 'new' sound not their 'old' sound. CVC words would then be the next progression.

- For some older children you may need to explicitly talk about the idea of an 'old nasal s' and 'new oral s'. Showing them a picture of the oral/nasal cavity may help them understand how to produce their new sound.

- 'th' may be the easiest sound to elicit with older children as it is less used in their consonant inventory.



Suspected Non Cleft VPI Assessment

Case History

It is important to ask specific questions as part of the case history which may help provide information about palatal function. Questions may include:

- Is there any history of cleft lip and palate in the family?
- Has the child had glue ear or ear infections?
- How did the child feed when they were a baby? Sucking? Swallowing? Nasal regurgitation of milk?
- Does the child eat a variety of textures?
- Do you ever notice any food or drink coming down the child's nose?

Oral examination

It is important to look inside the child's mouth with a torch and make some observations. Look at the palate – comment on the appearance (pink colour and one white line down the middle is considered normal), movement (lift should be symmetrical when you ask the child to say 'ah'), uvula (should be a single uvula).

* Look out for a blue, thin, translucent area in the middle of the palate. This may suggest that the muscles are not aligned correctly.

* Look for a bifid uvula (split in two) or no uvula.

*Can you see any bumps or notches in the palate?

Resonance

When rating the child's resonance ask the child to say the following:

TARGET	CHILD'S PRODUCTION	INDICATION
Mummy, mummy, mummy	Bubby bubby bubby	Hyponasality
Nanny, nanny, nanny	Daddy daddy daddy	Hyponasality
Daddy, daddy, daddy	Nanny nanny nanny	Hypernasality
Bobby, bobby, bobby	Mommy mommy mommy	Hypernasality
Puppy, puppy, puppy	Mummy mummy mummy	Hypernasality
Counting from 1-10	Nasal snort/emission on four, five, six, seven	Active Nasal Fricative

If you would like to discuss the child's assessment further you can contact Caroline Smith (ITS) for further advice and support.

If you suspect that a child has non cleft VPI you will need to make a referral to the local Specialist Cleft Team. Details of the teams can be found on:

www.clapa.com/medical/treatment_centres/