

Velopharyngeal dysfunction

This leaflet explains more about velopharyngeal dysfunction. If you have any questions, please speak to the speech and language therapist or doctor caring for your child.

Velopharyngeal dysfunction (VPD)

VPD is a speech difficulty that occurs when the soft palate muscle at the back of the roof of the mouth does not close tightly against the back wall of the throat during speech. This causes air to escape through the nose instead of the mouth.

The likely causes are:

- a cleft palate has been repaired and the muscles are still not working correctly, or the palate remains too short (a cleft palate is when a baby's mouth and palate have not fused together during pregnancy)
- the soft palate has a 'hidden' or submucous cleft palate
- the soft palate has no cleft (gap) in it but seems too short for the space between it and the back wall of the throat
- the soft palate looks long enough, but isn't
- the soft palate doesn't move or stretch normally. This is often caused by nerve messages not getting through properly or sometimes an unknown reason.

Signs and symptoms

Your child's speech could show one or more of these characteristics:

- hypernasal speech (too much air vibrating in the nose)
- the sound of air escaping down the nose while speaking (nasal emission or turbulence)
- speech sounds might be weak, missed out or replaced with other sounds that might be easier for your child to make, for example 'baby' becomes 'mayme'

Tests to confirm diagnosis

Your child will have a speech assessment by a speech and language therapist. This will identify any signs of VPD in your child's speech. During this assessment, the speech and language therapist will play with your child to listen to their speech. They will also ask your child to do some counting or repeat some sentences, to hear and analyse their speech.

This assessment is generally video recorded so we have a record of your child's speech for future comparison. The results of this assessment will be discussed with you.

If the therapist thinks that there are signs of VPD and your child is ready for potential surgery, they might recommend that you come to a velopharyngeal investigation (VPI) clinic. This appointment involves a detailed speech assessment and video recording, as well as a moving X-ray, showing how your child's palate is working when they talk. This type of X-ray is called a lateral videofluoroscopy.

Another test might be done called a nasendoscopy. This is where a very small light with a camera on the end is inserted through the nose to look at the palate moving from a different angle. This is only done if we need more information about the palate.

Treatment options

Your family and the speech and language therapist will discuss the results of these assessments with the cleft surgeon to decide the best treatment. This will quite often be an operation on the palate to make speech sound clearer. If surgery to the palate is needed, the speech and language therapist will review your child's speech after the operation, and might suggest some therapy or refer your child to a local speech and language therapist.

There are 2 main types of operation and the surgeon will choose the most appropriate one when they have all the information.

One type of operation tries to make the palate longer and more stretchy, to close up against the back wall of the throat. This is called a palate re-repair. The other type of operation moves muscles around in the throat to narrow the space and reduce the air leaking into the nose. This is called a pharyngoplasty. You will get more information at the VPI clinic about any possible surgery that your child might need.

What to expect from the surgery

We hope the operation will reduce the hypernasal tone of your child's speech and stop any nasal emission if it is present. A child's speech sounds are often stronger after the operation.

However, speech is a very complex skill that most of us develop without thinking about it. When VPD occurs, the speech might not only be very nasal sounding, but the sounds that we use in our words might also be produced in the wrong part of the mouth. The operation will not change this feature on its own and your child might need speech and language therapy with practice at home to learn new speech patterns.

You might notice a difference in your child's speech almost immediately, but often it can take a while for the muscles in the palate to 'learn' how to work in their new position.

If your child does not get treatment

The symptoms of VPD are unlikely to change if treatment is not given.

Support and more information

The Cleft Lip and Palate Association (CLAPA) is a support group for families and patients with cleft lip or palate, [web](http://www.clapa.com) www.clapa.com

Contact us

If you have any questions about VPI please contact the speech and language therapy team, [phone](tel:02071881321) 020 7188 1321, Monday to Friday, 9am to 5pm.

For more information on conditions, procedures, treatments and services offered at our hospitals, please visit [web](http://www.evelinalondon.nhs.uk/leaflets) www.evelinalondon.nhs.uk/leaflets

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