

## Velopharyngeal Inadequacy (VPI) Clinic

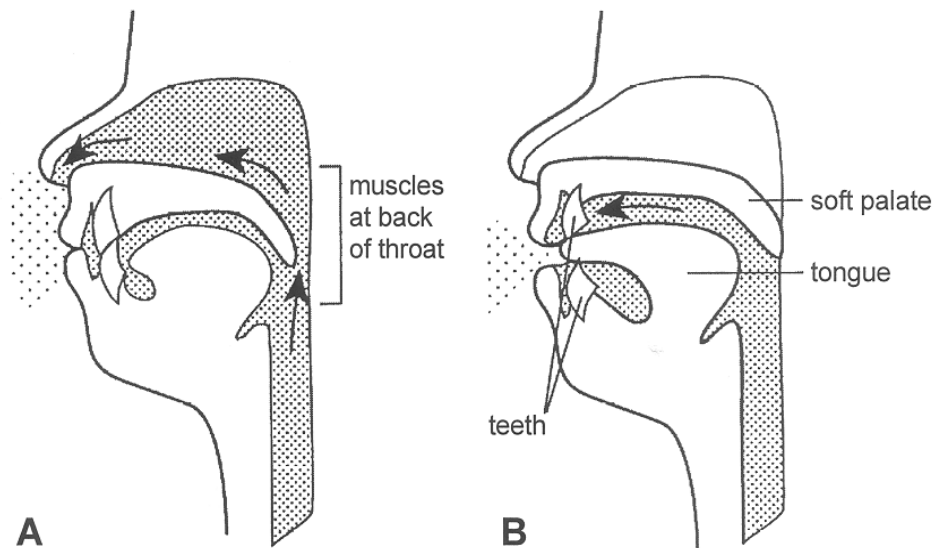
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The VPI Clinic is for children with resonance problems. This problem refers to the nasal tone of their speech.

- If there is too much air coming from the nose, the speech sounds too nasal. This is called hypernasal speech.
- If there is too little air coming from the nose, the speech is not nasal enough. This is called hyponasal speech.

The amount of air coming from the nose is controlled by the muscles at the back of the throat and the soft palate. These muscles close the space to direct air through the mouth only.

The VPI Clinic shows how well your child uses these muscles.



A  
Air flows through the mouth  
and nose.

B  
Soft palate closes the space and  
directs air through the mouth only.

## What happens at the VPI Clinic?

The VPI Clinic is made up of three different appointments:

1. speech and resonance assessment
2. videofluoroscopy
3. nasendoscopy

Your child may have three separate appointments. Each child's needs are different and may only need some of these appointments.

## Speech and Resonance Assessment

Speech assessment is done at the Ron Joyce Children's Health Centre, 325 Wellington Street North, Hamilton.

All children go to this appointment.

During this appointment a Speech Pathologist listens to your child talk. A computer may be used to measure sound coming from the mouth and nose. An examination of the inside of your child's mouth may be done.

The Speech Pathologist is listening for problems with:

- **resonance** or nasal tone
- **articulation**, which is how your child moves their tongue and lips to make letter or speech sounds

At the end of the appointment, the Speech Pathologist decides:

- to watch for changes over time
  - to recommend speech therapy
  - to do more testing in the Videofluoroscopy Clinic
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## Videofluoroscopy Clinic

The Videofluoroscopy Clinic is held in Diagnostic Imaging at McMaster Children's Hospital, 1200 Main Street West, Hamilton.

During this appointment:

- The Speech Pathologist says words to your child and your child repeats these words.
- A video x-ray shows how the muscles at the back of the throat and soft palate move when your child repeats these words.
- The video will take about 15 minutes.

Before the video x-rays are taken, your child will sniff a small amount of barium into their nose. Barium looks like milk and outlines the muscles, so that they can be seen on the x-ray. This can be a little uncomfortable but most children say the x-rays are "cool".

After the x-rays are taken the Radiologist and Speech Pathologist will look at them. You will **not** get the results of the x-rays on the same day. The Speech Pathologist will contact you when the results are known and let you know what needs to be done.

After the results are known the next step may be:

- to watch for changes over time
- to recommend speech therapy
- to do more testing in the Nasendoscopy Clinic

## Nasendoscopy Clinic

The Nasendoscopy Clinic is in the 3V1 ENT Clinic at the McMaster Children's Hospital, 1200 Main Street West, Hamilton.

Some children may need a special test called **nasendoscopy**. This test uses a very small camera to look at the muscles at the back of the throat and soft palate.

During this clinic the Speech Pathologist and the Plastic Surgeon get together to review all of the information about your child. Your child's problems will be explained to you with recommendations on how to help your child.

During the nasendoscopy:

- Your child will get nose spray, which freezes the feeling in the nose.
- The Plastic Surgeon will put a long, thin tube in the nose. The tube has a very small camera at the end of it. This is connected to a computer screen.
- The Speech Pathologist will have your child repeat words to make the muscles work.
- Everyone can watch the muscles at the back of the throat and soft palate work on the computer screen.

After this test, the Plastic Surgeon and the Speech Pathologist meet with you and your child. They explain what they saw and make suggestions to help your child.

These suggestions may be:

- to watch for changes over time
- recommend speech therapy
- surgery

## **The VPI Clinic team**

- Speech Language Pathologist
- Radiologist
- Plastic Surgeon

## **How do you find out more?**

You may have questions or want to know more about how to prepare your child for these appointments. Please call:

Christina Mellies or Brenda Murphy-Anderson  
Cleft Lip and Palate Team  
McMaster Children's Hospital at  
Ron Joyce Children's Health Centre  
905-521-2100, ext. 77207 or 77237