

Surgery to Improve Speech

Z-plasty (furlow), Palatal Revision, Pharyngoplasty, Pharyngeal Flap, Fistula Repair, Posterior Pharyngeal Wall Implant

Children with cleft palate, submucous cleft palate and palatal problems may present with speech difficulties due to an open connection between the mouth and the nose. Air leaks into the nasal cavity as a result of this gap resulting in hypernasal voice resonance and nasal emission while talking. This is called velopharyngeal insufficiency (VPI). VPI may also cause pronunciation errors and nasal regurgitation (food or fluid coming through the nose).

Potential treatment options usually include speech therapy and surgery. Your child will have some tests that can take an image of the palate during speech (nasoscopy and lateral video fluoroscopy). Your surgeon will discuss the best option for your child.

Surgeries performed on patients to improve speech include:

- > **Z-plasty (furlow):** This lengthens the soft palate so it can reach the back of the throat during speech. This is done by using the width of the soft palate to make it longer. The resulting scar on the palate looks like a "Z" which is why it is called a Z-plasty
- > **Palatal revision:** The original cleft palate repair is opened, the muscles are realigned, and the palate is repaired once more
- > **Fistula repair:** After your child's cleft palate repair, the tissues may heal in such a way that there is still an abnormal opening called a fistula. If there are problems with either eating or speech, the fistula will most likely need to be closed
- > **Pharyngoplasty/pharyngeal flap:** A "flap" is created from part of the back of the throat (pharyngeal wall) and is pulled forward and attached to the soft palate. Small spaces are left either side for breathing.
- > **Sphincter (Orticochea) pharyngoplasty:** is done by taking flaps of tissue from just behind the tonsil on each side. They are connected together across the back of the throat. This narrows the throat opening. A small, central opening or "port" is left in the middle for breathing through the nose
- > **Posterior pharyngeal wall implant:** A small piece of rib cartilage is removed and inserted into the posterior pharyngeal wall so that the soft palate is able to form a seal with the back of the throat during speech

What to expect after your child's surgery

Your child's surgery will be done under general anaesthesia, which means that he or she will be sound asleep during the surgery and will have no memory of it. The surgery usually takes about 1-2 hours. Your child will stay overnight in hospital for at least 1-2 days after the surgery.

What can my child eat after surgery?

- > Initially your child will have fluid via a drip. The drip rate will be reduced as your child is able to drink and eat.
- > After the surgery, your child may not be allowed to eat or drink for **at least 4-6 hours**, to allow time for the wound to begin healing and reduce risk of bleeding.
- > Your child will then slowly be allowed to start drinking clear fluids (water, cordial, apple juice, icy poles and jelly) and then may start eating **soft food**.
- > Children need a variety of foods each day to provide them with the nutrition they need to grow and develop
- > It is important to consider the types of food and drinks that you offer your child until they are back on their usual diet so they don't miss out on any vitamins or minerals



What is a soft diet?

- > A **soft diet** has been suggested by your surgeon to help with wound healing. Your child should continue on a soft diet for about three weeks or until your surgeon is happy for other foods to be added. During this time it is *important to rinse your child's mouth with water after they have eaten any food*
- > A soft diet contains foods that do not require a lot of chewing and are easily swallowed. A soft diet texture should be able to be mashed when pressed with a fork.
- > Foods that may interfere with the stitches should be avoided for a few weeks or until your surgeon tells you when it is appropriate (e.g. crusts, sharp-edged foods, hard fruits and vegetables)
- > All children are individuals and will progress to their usual diet at different rates. Be guided by your child's progress

Try to include foods from the following food groups every day:

- > Milk and other dairy products
- > Offer custards, yoghurts, milkshakes / smoothies
- > Cheese sauces as a base for mornay, pasta or rice dishes can make meals more interesting

Meat, chicken, fish, eggs, legumes and nut pastes

- > Dry, chewy meats should be avoided. Instead use minced, moist meats including mince (red or white meat), tuna or soft mashed fish (e.g. spaghetti bolognese, tuna mornay, shepherd's pie)
- > Omelettes, mashed boiled eggs and scrambled eggs are good options.
- > Include legumes such as soft baked beans, lentils in a soup or stew or hummus dip
- > Include smooth nut pastes (peanut butter) spread on soft bread or added into smoothies/ milkshakes

Cereals

- > Breakfast cereals softened with plenty of milk (e.g. weetbix, porridge).
- > Well-cooked noodles or pasta with a cheese or meat sauce.
- > Soft bread (no crusts, no toast, no multi-grain bread)

Fruit and vegetables

- > Soft, mashed fresh fruit (eg bananas, peaches), canned or stewed fruit.
- > Fruit can be served separately or with yoghurt, custard or fruche
- > Well cooked, mashed vegetables

Pain Management

- > Your child may return to the ward with a Patient Controlled Analgesia (PCA). A PCA is a form of pain relief that is controlled by the patient via their drip. Your child can press a button to receive pain relief. Younger children may receive pain relief through their drip that is controlled by their nurse.
- > Your child will also be given regular paracetamol whilst in hospital
- > For more information refer to 'Patient Controlled Analgesia' or 'Analgesic Infusion' information sheets

Wound / Mouth Care

- > Mouth care is important after surgery to ensure the wound remains clean from food and fluids to help improve healing
- > Your child may use mouth wash or sips of water

- > Check the wound after cleaning to make sure all food has been cleaned away

- > Your child may brush their teeth with a soft toothbrush, this should be done carefully and watched by an adult to make sure the wound is not damaged
- > Metal spoons, drinking straws and toys are **not allowed** to be used in the child's mouth due to the risk of disturbing the wound site. When eating solids a smooth edged, plastic or rubber coated spoon should be used. Spoons should only be used to the lip margin.
- > Your child may be given antibiotics via their drip during the operation and afterwards for 1 or 2 days
- > The stitches used are dissolvable and do not need to be removed

Mobilising

Encouraging your child to get up and move around as soon as possible can help with their recovery. Start by sitting up in bed at first, and then slowly start walking around as usual.

Information for Discharge

- > **Mouth care:** rinse your child's mouth with water or mouth wash (if supplied) after eating or drinking whilst your child is on a soft diet
- > **Soft diet:** your child will need to eat a soft diet for 3 weeks after surgery or as advised by your surgeon
- > **Pain relief:** you may give your child paracetamol or ibuprofen if they have any pain.

Contact the Craniofacial Unit, your local GP or private surgeon if your child has any of the following problems:

Signs of possible infection:

- > Increasing pain or pain not relieved by paracetamol or ibuprofen
- > Ongoing fever
- > Generally unwell
- > Reduced eating and refusing to eat
- > Bleeding/ooze from your child's mouth

Even once you have discharged, there is still a **risk of bleeding** after the surgery. If your child has any of the following signs of bleeding:

- > Swallowing more than usual
- > Coughing or spitting fresh blood (bright red)
- > **Return to the Women's and Children's Emergency Department**

Follow up appointments

You will be given an appointment time for approximately 1 week following your child's surgery in the Craniofacial Unit

Contacts

If you have any concerns after your child's discharge please telephone the Craniofacial Unit on (08) 8161 7000 and ask to speak to a member of the Craniofacial Team

For more information

**Australian Craniofacial Unit
Surgical Services
Level 1 Reiger Building
Telephone: (08)8161 7235**