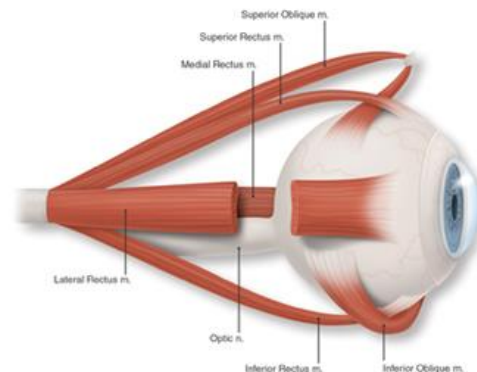




Dr. Michael Ashenhurst & Dr. Vivian Hill
Eye Physicians & Surgeons
Phone: 403 245 3171 Fax: 403 245 4205
(Surgical Booking)

Pediatric Strabismus Surgery At The Alberta Children's Hospital

Strabismus surgery involves the repositioning of the eye muscles on the eye balls to alter their function and better align the eyes. The goal of the surgery is to help the eyes work together better. This promotes better binocular vision. The surgery doesn't correct vision in the individual eye. Patching and eyeglasses will still be needed post-operatively if they were needed pre-operatively. Well aligned eyes also offer proven social and developmental benefits for your child.



During the surgery, weak muscles can be strengthened by giving them extra leverage, overacting muscles can be weakened by decreasing their leverage, and the direction of pull of a muscle can be altered. Absorbable stitches are used to reposition the muscles onto their new location on the eye ball. After several weeks, new attachments between the eye ball and the repositioned muscles will form. The muscle stitches completely dissolve within about 3 months. The surface stitches dissolve in 2 -3 weeks.

How is strabismus surgery done?

Strabismus surgery is usually done under general anesthetic at the Alberta Children's Hospital. Traditional micro surgical instruments are used. There is no current role for lasers in this type of surgery. A small incision is made in the conjunctiva (clear surface skin of the eye) and the muscle is accessed. The muscle is then detached from its original insertion and repositioned to its new location with sutures. These sutures are secured midway onto the outer wall of the eye and do not routinely penetrate the eye ball cavity itself.

What are the risks involved?

Fortunately, serious complications are very rare with routine strabismus surgery.

- Over/under corrections of the turn requiring an unplanned second procedure (<10%): Perfect alignment of the eyes is not always our goal. Sometimes we aim for slight over or under corrections to improve long-term stability or to minimize the amount of surgery required.
- Infections: Minor infections are a nuisance, but can be managed with extra eye drops. Serious infections are rare (1/10 000), but could result in loss of vision or loss of the eye.
- Small lumps, cysts, or persistent redness have been reported and are more common with re-operations.
- Eye ball perforations with the suture are very rare. If they occur, they are usually insignificant, but extra follow-up using dilating drops to help visualize the inner layer of the eye will be performed and if necessary a laser application or surgery may be needed to seal any worrisome holes or tears.
- A slipped or lost muscle is rare, but would require a prompt second surgery or a prolonged intraoperative course. Your child wouldn't be able to turn the eye at all in the direction of the slipped muscle. Most of the time, children simply don't use the muscle right after surgery because it is sore and this gradually gets better.
- Serious reactions to the anesthetic are extremely rare. Please let us know if there is ANY family history of adverse reactions to anesthetics or a disease called MALIGNANT HYPERTHERMIA.

Dr. Hill uses pre-operative measurements (orthoptics) to help calculate the amount of repositioning required and even which eye(s) should be operated on for the best possible results.

All preoperative appointments must be attended to avoid the possibility of the surgery being cancelled.

The Alberta Children's Hospital is located at:

28 Oki Drive NW
Calgary, Alberta
T3B 6A8

You can visit www.calgaryhealthregion.ca/achsurgery to help your family prepare for surgery. There is information on what to expect, and how to care for your child at home. You will also find a photo tour about what happens on the day of surgery, tips for teens, questions about anesthesia, and advice on how to discuss surgery with your child.

Most procedures done out of the Alberta Children's Hospital are a day surgery, meaning your child will be able to go home the same day. Sometimes, however, it is required that they stay overnight for one or two days.

In The Weeks Before Surgery

The Pre-Admission Clinic (PAC) staff will phone you 1-2 weeks before the surgery to go over your child's health history, give you instruction on getting your child ready for surgery, and answer any questions you may have.

Do not give your child medicine that has aspirin in it (like ASA, Aspirin, or Asaphen) or ibuprofen (like Motrin or Advil) 10 days before surgery. Please call PAC at (403)955-7953 if you have any questions.

Plan to have your other children stay with family or a friend on the day of surgery, as it can be a very long day for them. If this is not possible, Emily's Backyard, on the main level of the hospital offers free childcare. Space is limited, so please call (403)955-2500 or email eby@calgaryhealthregion.ca to book ahead.

We ask that at least one parent be with your child on the day of surgery. If your child is staying overnight, one parent is welcome to stay at the bedside. Your surgeon will tell you how long your child will need to stay home to recover. This will help you plan for days off work.

Special Information

If for any reason, you need to cancel or postpone your child's surgery, please call surgical booking at (403)245-3171. If it is within 24 hours of the surgery, you will also need to call the Short Stay Surgical Unit at (403)955-7856.

For health situations, it is important for non-English speaking patients to use a certified healthcare interpreter. If you need a certified healthcare interpreter for the day of surgery, ask your surgeon's office to call (403)955-1199 to arrange for an interpreter. You can also call the Pre-Admission Clinic at (403)955-7953.

If a yellow band is put on your child's wrist after blood work is done, please do not take it off. If it is taken off, your child will need to have another blood sample taken before surgery.

The Day Before Surgery

Please call the hospital the day before your child's surgery to find out what time you should be at the hospital. **Please call (403)955-7856 between 1:00PM and 3:00PM.** If your child's surgery is on a Monday, or if Monday

is a holiday, please call the Friday before. We ask that you arrive on time. This gives the nurses enough time to get your child ready for surgery and work around any schedule changes.

Instructions About Eating and Drinking

When you call the hospital, you will also be told when your child needs to stop eating or drinking before surgery.

It is very important you follow these instructions carefully. Your child's stomach needs to empty before he or she is given anesthesia (sleep medication). Your child cannot even have gum or candy on the day of surgery. If your child has something to eat or drink by mistake, the surgery may have to be delayed or cancelled.

If Your Child Becomes Sick

If your child has a fever, cough, or flu symptoms within 1-2 days of surgery, please call your surgeon. If your child is sick within 24 hours of the surgery, please call the Short Stay Surgical Unit at (403)955-7856 to speak to a nurse. If you reach our answering machine, please leave a message.

You may be asked to still come in on the day of surgery. The doctor that gives your child the anesthesia will check your child and decide if the surgery should be postponed until your child is feeling better.

Bath/Shower

Have your child take a bath or shower, including washing his or her hair the night before, or the morning of surgery. Braid long hair or tie it back in a ponytail. Use only plain elastics (no metal clips). Your child will also need to take off all make-up, nail polish, and jewelry (including body piercings) before coming to the hospital.

Medication

The PAC staff will tell you what time to give your child any prescription medication(s) on the day of surgery. If you have questions about medications, please call (403)9557856 to speak to a nurse. Let us know if your child is stopping or starting any new medication before surgery.

Parking and Checking In

There is lots of parking in the parkade, which is near the hospital's main entrance. A heated walkway connects the parkade to the hospital. There is disabled parking on each level of the parkade and in both of the outdoor parking lots. The outdoor lots are near the Emergency and Rehabilitation entrances.

Please go to the Admitting desk near the main entrance to check in.

What To Bring To The Hospital

- Loose, comfortable clothes for your child to wear home.
- Warm socks/slippers and a zip-up hoodie/housecoat to wear with the hospital pajamas. A comfort item for your child to take into the operating room (toy, blanket, or stuffed animal)
- Any special medications including inhalers, insulin, or heart or seizure medications.
- Any special medical supplies needed for things like G-tube feedings, trach care, or diabetes.
- Toys, books, or hand held electronic games, DVD movies, and portable music players.
- Any special bottle, nipple, or sippy cup your child likes, so it can be used after surgery.
- Your child's Alberta Health Care card.

Pack your child's things in a small suitcase or backpack. Please put your child's name on all of his or her belongings. Make sure you leave all expensive items and jewelry at home.

When Your Child Goes Home

To help you care for your child at home, you will be given a sheet of written instructions. There will be information on what to watch out for, when to call your surgeon, medication, diet, activity, and/or caring for your child's incision. Before you leave, your nurse will go over these instructions with you. Please ask us about anything that you do not understand.

It is best to have two adults for the drive home, so one person can take care of your child. If you came by bus, please ask someone you know to drive you home. The staff can also help you arrange for a taxi. It is a good idea to have a container or re-sealable plastic bag with you in case your child feels sick on the way home.

Have pain medicine like Tylenol or Tempra for when your child comes home. We also suggest you have extra fluids, such as soups, popsicles, and juices at home.

Specialized Care Plans

Would your child benefit from a specialized care plan for surgery? For children with Autism, high anxiety, or other special needs, the day of surgery can be challenging. We would like to help your family develop a plan to prepare for surgery in a way that works best for your child. The hospital can provide you with details about the day, communicate your child's needs to the surgical team, and develop a coping plan for your child. A child life specialist can work with your family and the surgical team to help and support you. Please contact

child.life@ahs.ca

Programs are also offered out of the hospital every Tuesday to go in and learn all about the equipment, anesthesia, and see the surgical areas with your child to answer any questions they may have! It is recommended to do this at least 1-2 weeks before surgery. Contact the email above to register!

What can I expect after surgery?

Your child may be nauseated and you should have Children's Gravol available. Reintroduce food slowly on the day of surgery. Start with clear fluids. The eye will look very red and it will feel sore. We suggest the regular use of children's Advil and Tylenol for the first 48 hours to control the pain. After this, use the pain medications on an as needed basis. Use the drops as prescribed. You may receive ointment from the hospital which can be used in addition to the drops, especially before bed. Ointment will sooth the eye, but will also blur the vision somewhat.

Please make sure you keep your follow-up appointments. Call the office if you are not sure when they are, or with any questions. (403) 245-3171.

What is normal after surgery?

Double vision	Low grade fever
Red eye	Difficulty getting the drops in
Pink tears or whitish mucous	Discomfort/scratchy eye
Reluctance to open the eye	Slight changes in eyeglass prescription
Swelling of the eyelids or small appearing eye	Slight blurriness

What is NOT normal after surgery?

Greenish or foul smelling discharge	Inability to open the eye/swollen shut eye
An eye that doesn't move at all	Extreme firmness around the eyelid
Severe pain	Red, tender, or extreme swollen lids
Reduced vision (some blurriness is expected)	

Please do...

Resume eyeglasses

Watch TV, read, use eye etc..

Resume pre-op patching in 3-4 days unless advised otherwise by orthoptist or surgeon

Please avoid...

Water in the eye for 1 week. Shower/bath is okay if careful

Swimming for 2 weeks or strenuous activity for 1 week

Sports for 2 weeks

RESCHEDULING/CANCELLING

If you need to cancel or reschedule your surgery, we need at least one week's notice. If you do not provide one week's notice there will be a rebooking fee of \$100. Exceptions are made for emergency situations with supporting documentation. Please call Surgical Booking at 403 245 3171 as soon as you can.

Important Phone Numbers

Admitting	(403)955-7783
Emily's Backyard	(403)955-2500
Family Support Specialist	(403)955-3272
Hospital Switchboard	(403)955-7211
Outpatient Pharmacy	(403)955-7303
Pre-Admission Clinic	(403)955-7953
Short Stay Surgical Unit	(403)955-7856
Surgeon's Surgical Booking	(403)245-3171