

Tube Feeding at Home

Percutaneous Feeding Tubes - Infants and Children



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saskhealthauthority.ca

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How To Get Feeding Supplies and Formula

Name of formula(s): _____

Amount of formula required per day: _____

Amount of formula required per month: _____

Number of feeding bags per month: _____

Number of syringes per month: _____

Number of Slip Tip syringes for balloon: _____

Where to Get Formula:

Your dietitian will help arrange access and coverage for tube feeding supplies.

Infants/Children With Treaty Status

- With valid treaty status most tube feeding supplies are covered through Non-Insured Health Benefits (NIHB).
- A parent's treaty status can be used until one year of age. After one year of age your child will need to have their own number.

Infants/Children Without Treaty Status

- When there is not treaty status some tube feeding supplies are covered through the Saskatchewan Aids to Independent Living (SAIL) program.

Where to Get Supplies:

- ☐ See the handout with locations closest to you.
- ☐ Pharmacy of your choice. Contact your pharmacist to determine if you can purchase formula and supplies from your local pharmacy. Remember that they may need to special order formula and supplies and will need advance notice of your needs.
- ☐ Other: _____



When you get home, store your formula at room temperature, out of direct sunlight.

☐ Transcribed information reviewed for accuracy and confirmed by healthcare provider

Types of Feeding Tubes

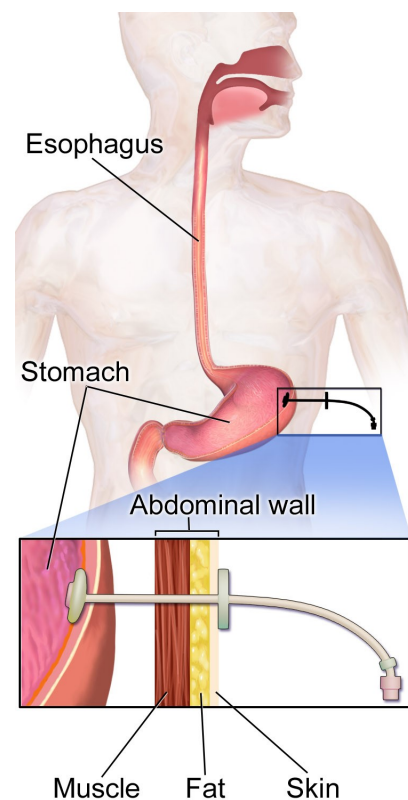
Gastrostomy Tube (G-Tube): a feeding tube that passes through the skin into the stomach.

Types of G-tubes include: Percutaneous Gastrostomy (PG), Percutaneous Endoscopic Gastrostomy (PEG), and surgically placed gastrostomy.

Jejunostomy Tube (J-Tube): a feeding tube that passes through the skin into the jejunum (the upper part of the small intestine).

Gastrojejunostomy Tube (G-J Tube): a feeding tube that passes through the skin into the stomach and then through the stomach into the jejunum (the upper part of the small intestine).

A Percutaneous Gastrojejunostomy (PGJ) is a type of G-J tube.



"Gastric Feeding Tube Adult" by BruceBlaus, CC BY-SA 4.0, via Wikimedia Commons.

Your infant/child's feeding tube is a _____

☐ The length of the external part of the tube is _____ cm.

Your infant/child's feeding tube may have a balloon that sits in their stomach and helps hold your tube in the right place.

☐ Yes, your infant/child's tube has a balloon.

☐ Your balloon volume is _____ mL.



A nurse will teach you how to check your infant/child's balloon volume and how to inflate the balloon prior to discharge. Instructions are on page 14.

☐ Transcribed information reviewed for accuracy and confirmed by healthcare provider

Tube Feeding Schedule

Infants may receive expressed breast milk and/or infant formula through their feeding tube. Expressed breast milk and/or infant formula is the only food an infant needs for the first 6 months of life.

Children one year of age and older receive liquid nutrition through their feeding tube. This liquid nutrition is also called enteral formula. Enteral formula may completely or partially replace a balanced diet of regular food.

Formula	Amount	Time	Rate (if using pump)



NOTE: These are suggested times. Feel free to adjust the times of the feeds based on what works for you and home.

Your Infant/Child's Tube Feeding Schedule:

Protein Powder/Modular:

Mix _____ scoops OR _____ packs of _____ with _____ mL room temperature drinking water.

Administer solution through your feeding tube _____ times per day.

Water Flushes:

Total amount of additional water required for flushes per day: _____ mL.

Before starting each feed, flush with _____ mL of room temperature drinking water.

When each feed is finished, flush with _____ mL of room temperature drinking water.

OR

Every _____ hours, flush with _____ mL of room temperature drinking water.

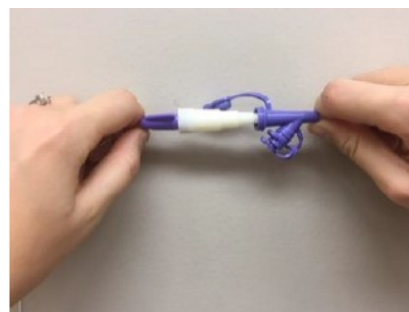
☐ Transcribed information reviewed for accuracy and confirmed by healthcare provider

Gravity Feeding Instructions

1. Gather **clean** equipment as listed below:
 - Feeding set (feeding bag and attached tubing)
 - Breast milk, infant formula or enteral formula
 - Container for water
 - Syringe (20 mL or larger catheter tip syringe)
2. Wash hands thoroughly with soap and warm water.
3. Check expiry date on formula. If expired, do **not** use.
4. Wash the top of the formula can with a clean, damp cloth. Shake can well before opening.
5. Close the roller clamp on the gravity feeding bag tubing and pour the formula into the bag. Use room temperature formula as cold formula can cause cramping or diarrhea. Do **not** heat formula in the microwave. See photo of roller clamp above.
6. Hang the gravity feeding bag so it is above your infant/child's head for gravity to work (on pole or hanger).
7. Let the formula run to the end of the gravity feeding bag tubing to get rid of all the air.
8. Flush your infant/child's feeding tube with the recommended amount of room temperature water using the syringe. Your infant/child may require a larger amount of water for the flush depending on their fluid needs. Their dietitian will assist you in knowing how much formula and water to provide.



Roller clamp. SHA [Nutrition Services, Saskatoon] 2019.



Gravity feeding bag and tubing. SHA [Nutrition Services, Saskatoon] 2019.

9. Attach the gravity feeding bag to your infant/child's feeding tube and slowly open the roller clamp to start the feed (**see page 5 for schedule/amounts**):
 - Do not hang the formula for more than 8 hours if pouring straight from the clean can. If you mix any additional liquids or powders into your formula (per recommendations from your dietitian), do not hang the formula for more than 4 hours.
 - Keep your infant/child upright at a minimum of 30 to 45 degrees while the formula is running and stay upright for 60 minutes after your tube feed is finished. Your child may also walk during their tube feed.

Gravity Feeding Instructions (Continued)

10. Once their feed is done, disconnect the gravity feeding bag from the feeding tube.
11. Flush the feeding tube with the recommended amount of room temperature water using the syringe.
12. Clean the gravity feed bag (**see page 10**).
13. If only a portion of a can of formula is being used for the feed, the remaining formula can be stored for use at the next feed. In this case, cover the top of the can with plastic wrap / lid or pour the leftover formula into a clean container such as a glass jar. Write the date and time on the lid of the container and store in the refrigerator.



- Any leftover formula must be used within 24 hours; otherwise, it should be thrown away.
- Do **not** store formula in the freezer.



Gravity feeding bag on pole. SHA [Nutrition Services, Saskatoon] 2019.

Extension Sets

- Anchor the feeding extension set with tape and pin the tape to your child's pants to keep it out of reach and prevent movement of the tube.
- Between feeds, be sure to detach the feeding extension set from the Gastrostomy tube to prevent pulling on the area. This pulling can enlarge the opening (stoma), causing irritation, granulation (scar) tissue and leakage.

Syringe Feeding Instructions

1. Follow steps **1 to 4** on page 6.
2. Flush the feeding tube with the amount of room temperature water recommended by your dietitian using a clean flushing syringe.
3. Remove the plunger from the formula syringe and set it aside. You now have a hollow syringe.
4. Clamp, pinch or kink your feeding tube.
5. Open the feeding cap/port of the feeding tube and insert the narrow end of the syringe into the end of the feeding tube. Lower the syringe below your infant/child's hips.
6. Pour the formula into the hollow syringe until $\frac{3}{4}$ full.
7. Raise the connected feeding tube and syringe to your infant/child's waist.
8. Unclamp your feeding tube to let the formula flow through. If the formula is running too fast, lower the syringe or temporarily pinch/kink your feeding tube with your fingers to slow it down.
9. Refill the syringe until all formula is used. When finished, disconnect the syringe from the feeding tube.
10. Flush your feeding tube with recommended amount of room temperature water using the syringe you used to flush the feeding tube in step 2.
11. Clean the formula syringe (**see page 10**).
12. If only a portion of a can of formula is being used at a feed, the remaining formula can be stored for use at the next feed. In this case, cover the top of the can with plastic wrap / lid or pour the leftover formula into a clean container such as a glass jar. Write the date and time on the lid of the container and store in the refrigerator.



- Any leftover formula must be used within 24 hours; otherwise, it should be thrown away.
- Do **not** store formula in the freezer.



Gravity feeding bag on pole. SHA [Nutrition Services, Saskatoon] 2019.

Pump Feeding Information

1. To Get a Pump:

- Enteral pump may be provided by Saskatchewan Aids to Independent Living (SAIL), Non-Insured Health Benefits (NIHB), private insurance or private purchase/rental.

- Local pump providers _____

- You may be able to purchase or rent a pump online.

2. If Using a Pump, Follow Distributor Instructions for Use.

- Do not hang the formula for more than 8 hours if pouring straight from the clean can. If you mix any additional liquids or powders into your formula (per recommendations from your dietitian), do not hang the formula for more than 4 hours.
- Keep upright at a minimum of 30 to 45 degrees while the formula is infusing. Your child may also walk during feeding.

☐ Transcribed information reviewed for accuracy and confirmed by healthcare provider

**Cleaning ENFit™ Feeding
Ports [Cardinal Health]**



Cleaning Instructions

Cleaning of Feeding Bags:

1. Rinse the feeding with cool water. Shake the bag back and forth several times to permit the water to reach all areas of the feeding bag.
2. Drain the water from the top of the bag. Repeat this several times until the water is clear and you are sure the formula has been rinsed out.
3. Between feeds, run cool water through the feeding bag tubing several times until the water comes out clear and you are sure the tubing is clean. Wash the feeding bag with soap and warm water after your last feed of the day.
4. Hang the feeding bag to dry in a clean place and cover it with a towel. If refrigerator space is available, the cleaned feeding bag can be refrigerated in between use to decrease chances of bacterial growth.



- It is recommended to use a new feeding bag each day. However, the same feeding bag can be used for up to 5 days if properly cleaned with soap and warm water daily.
- **Do not** use a dirty feeding bag.

Cleaning of Syringes:

1. Rinse the syringe with cool water after each use. **Once a day, wash with soap and warm water.** It may be necessary to soak the syringe for several minutes in order to remove the formula residue that builds up on the tip. Rinse thoroughly and allow to air dry on a clean surface.
2. Store syringes in a clean, dry space.
3. Syringes should be discarded as per manufacturer's instructions.

Feeding Extension Set:

1. Rinse feeding tube extension with water after each feed or every 4 hours with a continuous feed.
2. Wash in warm soapy water and rinse with clear water daily.
3. Replace the feeding extension set 2 times per month.

Medications

Buying Medication For Your Infant/Child's Feeding Tube:

- Talk to your infant/child's pharmacist or healthcare provider about all their medications (prescription, over-the-counter, supplements and herbal supplements) to be sure they can be given through their feeding tube.
- Remind the pharmacist or healthcare provider about your feeding tube each time your infant/child needs to take any new medications or supplements.
- Check with the pharmacist to see if your infant/child's medication is available in a liquid form and if this form is suitable to take through a feeding tube.

Giving Medications Through Your Infant/Child's Feeding Tube

(talk to a pharmacist for any medication-related questions):

1. Wash your hands thoroughly with soap and warm water.
2. Before giving the first medication, use a syringe to flush 5 to 10 mL, or amount recommended by healthcare professional, of purified* water through the tube.
3. Prepare each medication, one at a time, just before putting it in your feeding tube.
 - a. **Capsules:** Open the capsule and place the contents in a cup. Dissolve completely in the recommended amount of warm purified water.
 - b. **Tablets or pills:** Place the pill between the backs of two spoons or other devices to crush it very well. Place the contents in a cup. Dissolve completely in the recommended amount of warm purified water.
 - c. **Liquid medication:** Place in a cup and mix with the recommended amount of purified water.
4. **Never** mix any medications with any liquid other than purified water.
5. Between each medication, flush with 3 to 5 mL of purified water.
6. After you have given the final medication, flush the feeding tube again with 3 to 5 mL of purified water.

*Purified Water:



- **Water that has underwent any of the following:**
 - ⇒ Filtration
 - ⇒ Distillation
 - ⇒ Deionization
 - ⇒ Ion exchange
 - ⇒ Reverse Osmosis
- **Examples are:**
 - ⇒ Sterile water
 - ⇒ Distilled water

Mouth Care

Good mouth care is always important, even your infant/child is does not eat by mouth.

- For infants, use a wet wash cloth to wipe gums, lips, and tongue 2 times each day.
- For children, brush teeth 2 times each day.
- If you are unable to brush your child's teeth, rinse their mouth 2 times a day. Use 1 teaspoon (5 mL) of baking soda in 2 cups (250 mL) of warm water to rinse. Swish and spit out.



[Image](#) by [Alexas Fotos](#) from [Pixabay](#)



[Image](#) by [u_dln5yx2z](#) from [Pixabay](#)

Care of Feeding Tube Site

Cleaning Your Infant/Child's Tube Site:

- Clean the skin around the feeding tube at least once a day using a mild soap and warm water.
- Dry the feeding tube site well. A cotton swab may be used to help dry the feeding tube site.

Other Care For Your Infant/Child's Tube Site:

- Your infant/child may have tub baths again 1 week after their surgery to put in the feeding tube.
- 2 weeks after the surgery, you will be instructed to rotate the feeding tube 360 degrees every day if your infant/child has a gastrostomy tube with an internal balloon or dome.
Exception: tubes that are inserted through the stomach into the jejunum or directly into the jejunum **must not** be rotated.
- A dressing is not needed unless there is fluid leaking around the feeding tube site.
- If the skin around the feeding tube site is red, paint it using a cotton ball dipped in a liquid antacid such as Gaviscon™ or Pepto-Bismol™. A zinc-based cream may also be used (**see page 16**).



Do not use cream that has lanolin in it. Lanolin is a skin irritant and will make the skin worse.

- If you have any questions about care for the feeding tube site, ask your healthcare provider.

Changing Balloon Water

It is important to check the amount of water in the G-tube or PGJ-tube balloon at least once a week.

This will help you to know if there is a problem with the balloon leaking.

1. Gather **clean** equipment as listed below:

- 6 mL slip-tip syringes (2 of them)
 - ⇒ 1 for taking the old water out and 1 filled with new sterile water
- Sterile water

2. Wash your hands before changing the balloon water.

3. Insert an empty 6 mL syringe into the **balloon port. (BAL)**

4. Remove all the water from the balloon by pulling back on the plunger; some water will fill the syringe without even pulling. **Note the amount removed from the balloon** – seen on syringe markings.

5. **Keep one hand on the G-tube**, as it can potentially come out without water in the balloon. It is normal for the water to become discoloured (brown or yellow). It is also normal to have a small amount of water less, as sometimes it evaporates. Empty the syringe and **REPEAT** removal to ensure all water is out if you don't notice an air bubble.

6. Re-inflate the balloon with the second syringe (new water) –put in the recommended amount of water. Keep pressure on the plunger as you remove the syringe.



Image by JJuni via Pixabay



Balloon port. SHA [Nursing Practice and education] 2023.



Remember the amount of water used for your child's balloon.
The typical volume is 4 to 6 mL unless your balloon valve has a specific volume stamped on it.



It may be helpful to have someone help you if your child is very active for the first couple of changes.

Troubleshooting

- If you remove water from the balloon and it is significantly less water (for example, you put in 5 mL and you take out 3.8 mL), you may need to do frequent checks to ensure the balloon is intact.
 - ⇒ Check balloon water volume in the morning and again in the evening.
 - ⇒ Repeat for 3 days if you are unsure.
 - ⇒ If you can confirm the balloon is losing water during the day, you will need to change the tube.



If you have not done a tube change before, please call your nurse to arrange a change or they can help you do one over the phone.

TROUBLESHOOTING COMMON PROBLEMS

Bloating...

What could this mean?

- Taking the formula too fast
- Air in the stomach

What can I do?

- Run the feeds slower.
- Remove all air from the tubing and syringes before giving formula and medication.

Nausea and/or Vomiting...

What could this mean?

- Taking formula too fast
- May have a stomach flu
- Contaminated or expired formula

What can I do?

- Check the expiration date of the formula and ensure the formula was stored properly.
- If nauseous, run feeds slower or pause the feed.
- If vomiting, stop the feed and flush the tube with the recommended amount of water to clear the tube.
- Wait at least 2 hours before re-starting the feeds.
- When re-starting the feeds, run it slower.
If this does not work, stop feed again.
- Give smaller feeds more often.
- Stay as upright as possible (a minimum of 30 degrees) during feeds.
- Remain as upright as possible (a minimum of 30 degrees) for 60 minutes after feeds.
- If your child can, walk after feeds.
- If vomiting, flush your tube with additional water to avoid dehydration.
- If vomiting continues for longer than 1 day, contact your healthcare provider.

Cramping and/or Diarrhea...

What could this mean?

- Side effects of some medications
- Taking formula too fast
- Taking formula that is cold
- Contaminated or expired formula

What can I do?

- Ask your healthcare provider if any of the medications cause diarrhea.
- Run feeds slower.
- Always use room temperature formula. If the formula was stored in the fridge, let it sit at room temperature for 1 hour before using it.
- Store and prepare formula with care, including proper hand washing before preparing the formula and handling the tube site.
- Always use clean equipment.
- Never mix medication into formula.
- Do not hang the formula for more than 8 hours if pouring straight from the clean can. If you mix any additional liquids or powders into the formula (per recommendations from the dietitian), do not hang the formula for more than 4 hours.
- When diarrhea is present, increase water flushes to avoid dehydration.
- Ask your healthcare provider about the use of anti-diarrheal medications.

NOTE: Tube feeding formulas are in liquid form, which means there is very little bulk going through your digestive tract. As a result, bowel movements will likely be more liquid. A few loose bowel movements in a 24 hour period may be considered normal.

TROUBLESHOOTING COMMON PROBLEMS (Continued)

Constipation...

What could this mean?

- Not getting enough water or fibre
- Activity level has changed
- Side effects of some medications (especially pain medications)

What can I do?

- Increase water flushes before and after feeds.
- Dilute prune juice with an equal amount of water. Flush this mixture through your feeding tube using a syringe. Remember to flush the feeding tube with the recommended amount water after taking the prune juice. Ask the dietitian about a fibre-containing formula if constipation does not go away.
- If able, increase activity and movement.
- Ask your healthcare provider if any of the medications can cause constipation.

Gas/Vomiting/Discomfort (Do not do with PGJ tubes)...

What could this mean?

- Child has a swollen, firm abdomen or is fussier than usual
- Air is trapped in stomach and needs to be released

What can I do?

- Attach the extension set or bolus feeding tube (also called venting tube) to the **G tube**.
- Place a large syringe (open to air with the plunger removed) at the open end of the venting tube and raise it above the stomach to help gas to be released.
- You may need to do this venting after every feed for 10 to 20 minutes and possibly more often if your child is uncomfortable.
- If formula comes into the syringe, gently and slowly push it back. Sometimes, venting 5 to 10 minutes before a feed is helpful as well.

Plugged Tube...

What could this mean?

- Inadequate flushing of the tube
- Formula might need to be changed – call your dietitian
- Medications are too thick

What can I do?

- Be sure to flush the tube before and after feeds and before, between, and after medications to prevent the tube from plugging.
 - ⇒ Use 10 to 20 mL of water for children
 - ⇒ Use 5 mL of water for babies
- Medications may have to be diluted more before you give them. Your pharmacist can help with this problem.
- If the tube plugs, try gently flushing with 20 mL of warm water for children and 5 mL for babies. Do not force the water into the tube. Gently pull the plunger, drawing back into the syringe. Repeat this, gently flushing several times as needed until the tube is unplugged.
- If it is still plugged, clamp the tube for 5 minutes with the warm water in the extension set, then repeat the flushing movements.
- If you are unable to unplug the tube, it will have to be changed.
 - ⇒ Contact your healthcare provider if you are unable to change the tube at home.

TROUBLESHOOTING COMMON PROBLEMS (Continued)

Skin and Feeding Tube Site Issues (Discharge, Drainage and Granulation Tissue)...

What could this mean?	What can I do?
<ul style="list-style-type: none"> • White or yellow discharge from the site is normal • Green or foul-smelling discharge and weepy or itchy skin around the tube site may indicate an infection • Pain and drainage can occur with granulation tissue • Excessive drainage could mean the tube is not fitting properly 	<ul style="list-style-type: none"> • If the discharge is white or yellow, no action is needed. You may want to place a thin dressing around the base of the tube to absorb the discharge. Change this dressing as often as needed to prevent skin irritation. • Help prevent infection by cleansing the area daily with warm water and mild soap or, more often if there is drainage. Use a zinc based cream, with 15% or more zinc, on the area if the skin is reddened. • Contact your healthcare provider to rule out an infection if you have drainage that is green or foul smelling and/or if the skin around the tube is red and warm to the touch. • Tissue may begin to grow around the tube. This is scar tissue, also known as hypergranulation tissue. See the Hypergranulation handout. • Hypergranulation tissue forms more often if the feeding tube is moving around. This tissue affects the fit of the tube. A dressing or cloth tape may be needed to prevent the tube from moving. • If there is a balloon on the device, check the water level regularly. Add water as needed to improve the fit of the tube.

Tube Comes Out...

What could this mean?	What can I do?
<ul style="list-style-type: none"> • The balloon may have lost water • The feeding tube insertion site could close - This problem must be dealt with immediately 	<ul style="list-style-type: none"> • The stoma (opening) will begin to close quite quickly. • <u>If LESS than 2 months post surgery</u>, cover stoma with a dressing and take your child to the Emergency or Children's Emergency Department right away to have it replaced by the medical staff and possibly correct placement confirmed. • <u>If MORE than 2 months after the surgery</u>: <ul style="list-style-type: none"> ⇒ G-Tube: The stoma should be formed well enough to put tube back in. If you have never done this call _____ for guidance (after hours call the Emergency or Children's Emergency). <ul style="list-style-type: none"> ◆ If child is crying, try to settle as it is more difficult to place tube with stomach muscles tight. ⇒ PGJ: if the tube is partially out, tape it in place and come to the hospital for the tube to be replaced by medical staff. If the tube is full out of the stoma, insert the old tube about 3 to 5 cm into the stoma and tape in place (only meant to keep stoma open). Do not feed through this tube. • If you have concerns do not hesitate coming to the hospital.

Routine Replacement of Your Feeding Tube

Your infant/child's feeding tube is a _____
and was placed by _____ at _____
on _____.

- ☐ Percutaneous Gastrostomy (PG) and Percutaneous Gastrojejunostomy (PGJ) feeding tubes are usually changed in the _____ every 3 to 6 months.

Please contact: _____

- ☐ Percutaneous Endoscopic Gastrostomy (PEG) feeding tubes are not changed on a routine schedule.

Please call the physician who placed the feeding tube if the tube is cracked, damaged or leaking.

- Physician: _____ at _____ Phone: _____

- ☐ Surgical gastrostomy and jejunostomy tubes are not changed on a routine schedule.

Please call the physician who placed the feeding tube if the tube is cracked, damaged or leaking.

- Physician: _____ at _____ Phone: _____



- Note: Please call 1 week in advance to make arrangements for replacement.

Important Phone Numbers:

Professional	Phone Number
Dietitian:	

- ☐ Transcribed information reviewed for accuracy and confirmed by healthcare provider

Feeding Tube Replacement Log - Patient/Caregiver Notes

Date	Physician

Weight Log - Patient/Caregiver Notes

Date	Weight



- Be sure to weigh your infant/child weekly.
- Contact your outpatient dietitian if they have noticeable weight gain or loss, as this may indicate the need for a new tube feed prescription.

[illegible]



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Healthy People, Healthy Saskatchewan

The Saskatchewan Health Authority works in the spirit of truth and reconciliation, acknowledging Saskatchewan as the traditional territory of First Nations and Métis People.

PIER—Patient Information and Education Resource

MARCH 2025



**Saskatchewan
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