READ THIS FOR SAFE AND EFFECTIVE USE OF YOUR MEDICINE

PATIENT MEDICATION INFORMATION

[Pr]Norditropin NordiFlex®
Somatropin for injection

Read this carefully before you start taking **Norditropin®** and each time you get a refill. This leaflet is a summary and will not tell you everything about this drug. Talk to your healthcare professional about your medical condition and treatment and ask if there is any new information about **Norditropin®**.

Serious Warnings and Precautions

- Norditropin® therapy should be carried out under the regular guidance of a doctor who is experienced in the diagnosis and management of patients with growth disorders.
- There have been reports of deaths in children with Prader-Willi syndrome who were treated with growth hormone and had one or more of the following risk factors: severely obese, breathing problems or colds and lung infections.

What is Norditropin® used for?

Children:
- Norditropin® is used for the long-term treatment of children with growth failure due to an inability to produce adequate amounts of growth hormone.
- Norditropin® is used for the treatment of children with short stature born small for gestational age (SGA) with no catch-up growth by age 2.
- Norditropin® is used for the treatment of children who are short (in stature) and who have Turner syndrome.

How does Norditropin® work?
Norditropin® provides growth hormone for children unable to produce adequate amounts of growth hormone naturally.

Norditropin® may produce bone growth in children where the ends of the long bones have not yet hardened. Norditropin® has many effects on growth and metabolism.

What are the ingredients in Norditropin®?
Medicinal ingredients: Somatropin (recombinant human growth hormone)
Non-medicinal ingredients: histidine, mannitol, phenol, poloxamer 188 and water for injections

Norditropin® comes in the following dosage forms:
Norditropin NordiFlex® is available as a pre-filled disposable pen in 3 colour coded strengths:
- 5 mg/1.5 mL pen with an orange pen cap and push button

- 10 mg/1.5 mL pen with a blue pen cap and push button
- 15 mg/1.5 mL pen with a green pen cap and push button

Do not use Norditropin® if:

- The child has acute critical illness caused by open heart or stomach surgery, major injuries, or acute breathing (respiratory) problems. In these situations, treatment with growth hormone may increase the risk of death.
- The child's growth areas of the bones have closed (closed epiphyses) and cannot grow any longer.
- The child has active cancer or other tumours. Cancer treatment must be finished before starting treatment with Norditropin®. Stop Norditropin® treatment if evidence of cancer develops.
- The child has Prader-Willi syndrome. There have been reports of deaths in children with Prader-Willi syndrome who were treated with growth hormone and had one or more of the following risk factors: severely obese, breathing problems or colds and lung infections.
- The child is allergic to any of the ingredients in Norditropin® (see **What are the ingredients in Norditropin®?**) or to any component of the container.

To help avoid side effects and ensure proper use, talk to your child's healthcare professional before your child takes Norditropin®. Talk about any health conditions or problems your child may have, including if your child:

- Has Prader-Willi syndrome and breathing problems, sleep apnea (not breathing while sleeping), snoring or a respiratory infection. Norditropin® is not approved for use in children with Prader-Willi syndrome.
- Has diabetes or a family history of diabetes. If the child is on insulin, the dose may need to be adjusted because Norditropin® may affect the body's response to insulin.
- Is experiencing headache, nausea, visual changes and/or vomiting. These are symptoms of a condition called intracranial hypertension.
- Has ever had hypothyroidism (low levels of thyroid hormone), since Norditropin® may reduce the levels of thyroid hormone in the body.
- Has ever had scoliosis (a condition which affects the spine). Since growth hormone increases growth rate, patients who have ever had scoliosis who are treated with Norditropin® should be monitored for progression of scoliosis.
- Has ever had cancer or cardiovascular disorders (stroke, aortic aneurysm (abnormal dilatation of the aortic wall)/ dissection (rupture of the main blood vessels), and high blood pressure).

If your teenaged child becomes pregnant or is sexually active, talk to your child's healthcare professional as it is not known if Norditropin® could cause harm to an unborn baby, or whether it can pass into breast milk when breastfeeding.

Other warnings you should know about:

Rarely, injection of growth hormone products under the skin (subcutaneous injection) can result in loss of fat and tissue weakness (lipoatrophy), or enlargement or thickening of fat tissue (lipohypertrophy) in the area of the skin you inject. Patients should be advised to consult their healthcare professional if they notice any of these conditions.

Increased risk of growth of cancer or a tumour that is already present and increased risk of the return of cancer or a tumour in people who were treated with radiation to the brain or head as children and who developed low growth hormone problems. Your child's healthcare professional will need to monitor your child for a return of cancer or a tumour. Contact your child's healthcare professional if your child starts to have headaches, or has changes in behaviour, changes in vision, or changes in moles, birthmarks, or the colour of their skin.

In children with Turner syndrome, a few cases of increased growth of hands and feet compared to height have been observed.

Norditropin® may cause a decrease in thyroid hormone levels. Decreased thyroid hormone levels may affect how well Norditropin® works. Your child's healthcare professional will do blood tests to check your child's thyroid hormone levels.

Norditropin® may cause a decrease in a hormone called cortisol. Tell your child's healthcare professional if your child has darkening of the skin, severe fatigue, dizziness, weakness, or weight loss. The healthcare professional will do blood tests to check your child's cortisol levels.

Norditropin® may cause an increase in phosphorus, alkaline phosphatase and parathyroid hormone levels in your blood. Your child's healthcare professional will do blood tests to check this.

Tell your child's healthcare professional about all the medicines your child takes, including any drugs, vitamins, minerals, natural supplements or alternative medicines.

The following may interact with Norditropin®:

- Corticosteroids (steroids): Steroids may decrease the effects of Norditropin®. Doses of the steroid may need to be adjusted.
- Insulin: Norditropin® may affect the body's response to insulin. Doses of insulin may need to be adjusted.

How to take Norditropin®:

Norditropin® therapy should be carried out under the regular guidance of a doctor who is experienced in the diagnosis and management of patients with growth disorders.

Usual dose:

Your child's doctor will calculate the dose of Norditropin® most appropriate for your child, based on your child's body weight.

Overdose:

If your child has been given too much Norditropin®, contact your healthcare professional, hospital emergency department or regional Poison Control Centre immediately, even if there are no symptoms.

Short-term overdosage can lead to low blood glucose levels initially, followed by high blood glucose levels. Overdose is also likely to cause fluid retention.

Long-term overdosing can cause abnormal growth and coarsening of facial features.

Missed dose:
Missing doses can interfere with the effectiveness of the medication. Talk to your child's doctor if this happens. If your child misses a dose, it is not recommended to double the next dose. Administer the regular dose at the next scheduled dosage time.

It is important to keep changing the injection site to minimize the risk of lipoatrophy.

Please see the section "**INFORMATION ON HOW TO INJECT NORDITROPIN NORDIFLEX®**" at the end of this leaflet.

What are possible side effects from using Norditropin®?

These are not all the possible side effects your child may feel when taking Norditropin®. If your child experiences any side effects not listed here, contact their healthcare professional.

- Serious allergic reactions. Get medical help immediately if your child has the following symptoms: swelling of the face, lips, mouth, or tongue; trouble breathing; wheezing; severe itching; skin rashes, redness, or swelling; dizziness or fainting; fast heartbeat or pounding the chest; sweating.
- Redness and itching may appear at the injection site. If this appears to be particularly troublesome or if the injection area becomes painful, you should discuss this with your child's doctor.
- Growth hormone like Norditropin® may bring about insulin resistance. Insulin resistance means your body cannot make good use of the insulin it produces. This causes higher levels of glucose in your blood. It is important to check your child's blood glucose levels if your child has diabetes or a family history of diabetes.
- Nausea, vomiting, headache or visual changes. If your child experiences any of these side effects notify your child's doctor.
- Breathing problems in patients with Prader-Willi syndrome. If your child has Prader-Willi syndrome and develops signs of breathing problems, sleep apnea (not breathing while sleeping) or new or increased snoring, contact your child's doctor.
- If the child shows an unexplained limp, or complains of hip/knee pain (slipped capital femoral epiphysis), contact your child's doctor.
- Middle ear infection, hearing problems or ear problems in children with Turner syndrome. If your child experiences any of these side effects notify your child's doctor.
- When treatment with Norditropin® is initiated, fluid retention with swelling of the hands and feet may occur. Mild joints pain, muscle pain and tingling or numbness of the hands and feet may also occur, but will usually improve without treatment.

Serious side effects and what to do about them			
Symptom / effect	**Talk to your healthcare professional**		**Stop taking drug and get immediate medical help**
	Only if severe	**In all cases**	
VERY COMMON			
Respiratory tract infections: Cough; sneezing; nasal congestion; runny nose; fever; scratchy or sore throat.	✓		
Ear infections: Ear pain; fever; drainage from the ear that is thick and yellow or bloody; loss of appetite, vomiting, and grumpy behavior; trouble sleeping.	✓		
Skin infections: Redness of the skin and a rash; itching, pain, and tenderness.	✓		
Infection in the small intestine: Gas, bloating, diarrhea, abdominal pain or cramping; constipation.	✓		
COMMON			
Worsening of curvature of the spine (scoliosis): Back pain; one shoulder blade is higher than the other; one shoulder blade sticks out more than the other; uneven hips.	✓		
Pain in the joints	✓		
Asthma: Shortness of breath; chest tightness or pain; coughing or wheezing.		✓	✓
Swelling of adenoid glands: Blocked, stuffy nose; ear problems; problems sleeping; sore throat; difficulty swallowing; swollen glands in the neck.	✓		
Constipation: Passing fewer than three stools a week; having hard stools; straining to have a bowel movement; feeling as though you can't completely empty the stool from your rectum.	✓		
Sleep Apnea: Silent pauses in breathing; choking or gasping sounds while sleeping; daytime sleepiness or fatigue.		✓	✓
UNCOMMON			
Heart problems: Difficulty breathing; shortness of breath, chest pain, or tightness; feeling of heavy, pounding, or noticeable heartbeats; fainting.		✓	✓
Jaundice: Yellowing of the skin or eyes.		✓	
Convulsions: Losing consciousness; having uncontrollable muscle spasms; drooling or frothing at the mouth, having a strange taste in your mouth; clenching your teeth; biting your tongue; having sudden, rapid eye movements.		✓	✓
Febrile convulsions: Breathing difficulty; contraction of the muscles of the face, limbs, and trunk; fever.		✓	✓
Depression; aggression	✓		

If your child has a troublesome symptom or side effect that is not listed here or becomes bad enough to interfere with their daily activities, talk to your child's healthcare professional.

Reporting Side Effects

You can report any suspected side effects associated with the use of health products to Health Canada by:

- Visiting the Web page on Adverse Reaction Reporting (http://www.hc-sc.gc.ca/dhp-mps/medeff/report-declaration/index-eng.php) for information on how to report online, by mail or by fax; or
- Calling toll-free at 1-866-234-2345.

NOTE: Contact your health professional if you need information about how to manage your side effects. The Canada Vigilance Program does not provide medical advice.

Storage:
Before you use Norditropin NordiFlex® pens for the first time:
- Store your new, unused Norditropin® pen in a refrigerator between 2ºC to 8ºC.
- Do not use Norditropin® after the expiration date printed on the carton and the pen.
- Do not freeze Norditropin®.

After you use Norditropin NordiFlex® pens and there is still medicine left:
- Store remaining Norditropin® in the refrigerator between 2ºC to 8ºC and use within 4 weeks, or
- Store remaining Norditropin® at room temperature up to 25ºC and use within 3 weeks.

Keep out of reach and sight of children.

If you want more information about Norditropin®:
- Talk to your healthcare professional
- Find the full product monograph that is prepared for healthcare professionals and includes this Patient Medication Information by visiting the Health Canada website; the manufacturer's website http://www.novonordisk.ca or by calling Novo Nordisk Canada Inc., at: 1-800-465-4334.

This leaflet was prepared by Novo Nordisk Canada Inc.

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INFORMATION ON HOW TO INJECT NORDITROPIN NORDIFLEX®

Introduction

Please read the following instructions carefully before using Norditropin NordiFlex®.

Norditropin NordiFlex® is a multi-dose pre-filled pen with human growth hormone solution for injection. The dose is in milligrams (mg).

For Norditropin NordiFlex® 5 mg/1.5 mL, you can use the dose selector to dial any dose from 0.025 to 1.50 mg, in increments of 0.025 mg. Your doctor will decide the correct dose for you.

For Norditropin NordiFlex® 10 mg/1.5 mL, you can use the dose selector to dial any dose from 0.05 to 3.00 mg, in increments of 0.050 mg. Your doctor will decide the correct dose for you.

For Norditropin NordiFlex® 15 mg/1.5 mL, you can use the dose selector to dial any dose from 0.075 to 4.50 mg, in increments of 0.075 mg. Your doctor will decide the correct dose for you.

Norditropin NordiFlex® is designed to be used with NovoFine®, NovoFine® Plus or NovoTwist® disposable needles up to a length of 8 mm.

Never share your Norditropin NordiFlex® pen or needles with anyone else, even if the needle is changed. Do not reuse or share needles with another person including family members. You may give another person an infection or get an infection from them.

Prior to any contact with Norditropin NordiFlex® wash hands thoroughly with soap and water.

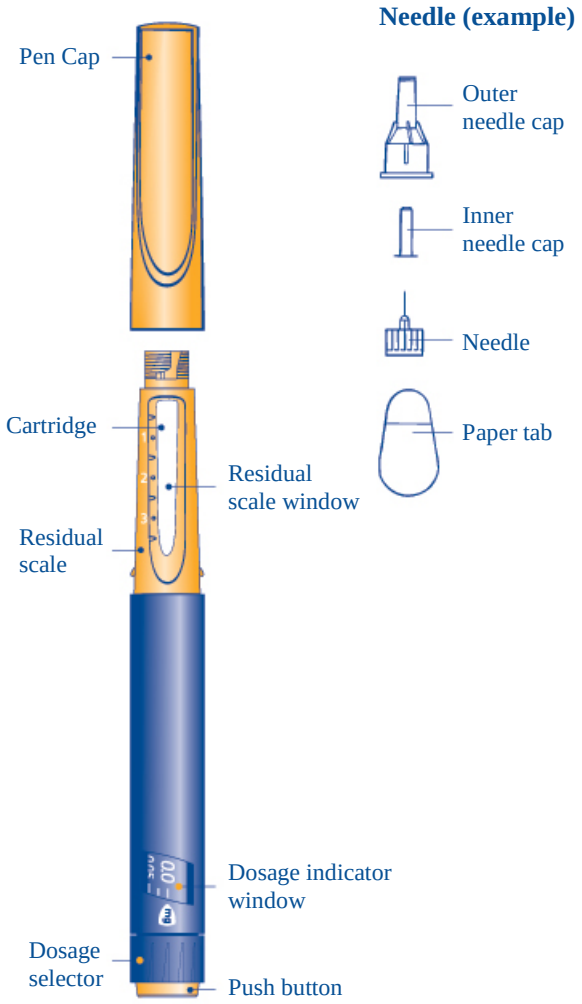
Always use a new needle for each injection.

Always check the flow before the first injection with each new pen – see step 3. Check the flow.

Always keep your pen and needles out of the sight and reach of children.

Caregivers must be very careful when handling used needles – to reduce the risk of needle sticks and cross-infection.

Norditropin NordiFlex® should not be shaken vigorously at any time.



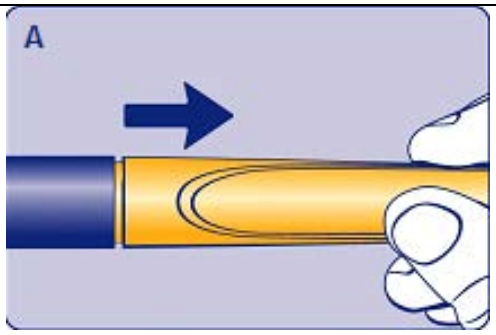
1. Check the pen

Check the name, strength, and coloured label of your Norditropin NordiFlex® pen to make sure that it contains the growth hormone strength you need.

Pull off the pen cap **[A]**.

Check that the solution inside the cartridge is clear and colourless by tipping the pen upside down once or twice.

Do not use the pen if the solution inside the cartridge is unclear or cloudy.



2. Attach the needle

Always use a new disposable needle for each injection. This reduces the risk of contamination, infection, leakage of solution, blocked needles, and inaccurate dosing. Never bend or damage the needle.

Remove the protective paper tab from the needle.

Screw the needle straight onto the pen **[B]**. Make sure the needle is on tight.

The needle has two needle caps. You need to remove them both.

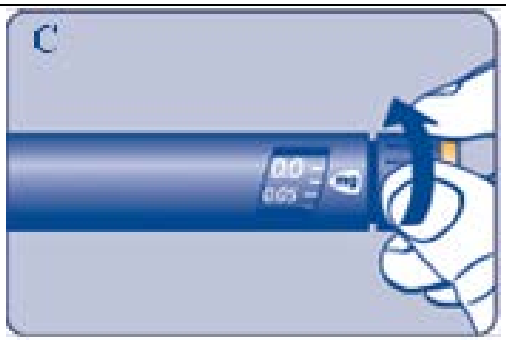
Pull off the outer needle cap and keep it to correctly remove the needle from the pen after the injection.

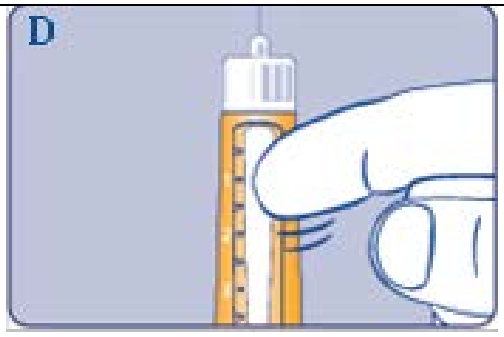
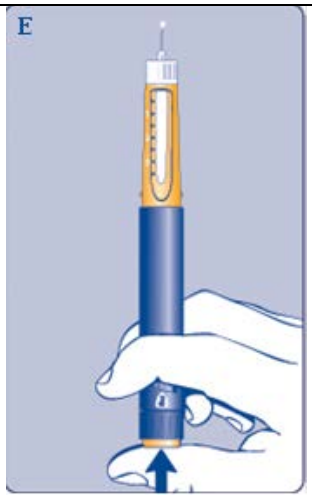
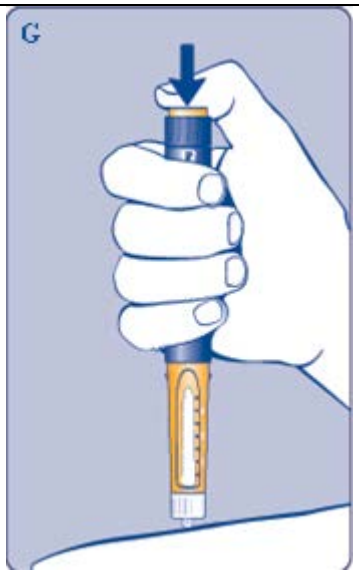
Remove the inner needle cap by pulling on the central tip and throw it away.

3. Check the flow

Before your first injection with each new pen, you need to check the flow to make sure you get the correct dose and do not inject any air**.**

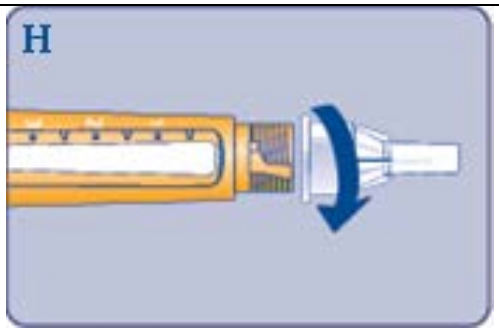
- For Norditropin NordiFlex® 5 mg/1.5 mL **select** 0.025 mg **[C]**. This is one ‘click’ after 0.0 on the dosage selector at the end of the pen.
- For Norditropin NordiFlex® 10 mg/1.5 mL **select** 0.05 mg **[C]**. This is one ‘click’ after 0.0 on the dosage selector at the end of the pen.
- For Norditropin NordiFlex® 15 mg/1.5 mL **select** 0.075 mg **[C]**. This is one ‘click’ after 0.0 on the dosage selector at the end of the pen.



Hold the pen with the needle pointing up and tap the top of the pen a few times to let any air bubbles rise to the top **[D]**.	
Holding the pen with the needle up, press the push button at the bottom of the pen all the way in **[E]**. A drop of solution will appear at the needle tip. If no drop appears, repeat steps **[C]** to **[E]** up to 6 times until a drop appears. If there is still no drop, change the needle and repeat steps **[C]** to **[E]** once more. **Do not use the pen if a drop does not appear.** Use a new pen. Always check the flow before the first injection with each new pen. Check the flow again if your pen has been dropped or knocked against a hard surface, or if you suspect something is wrong with it.	
4. Select the dose Check that the dosage selector is set at 0.0. Select the number of mg your doctor has prescribed for you **[F]**. The dose can be increased or decreased by turning the dosage selector in either direction. When turning the dosage selector backwards, be careful not to press the push button as solution will come out. You cannot set a dose larger than the number of mg left in the pen.	
5. Inject the dose Use the injection method shown to you by your doctor or nurse. Your doctor or nurse will teach you how to locate appropriate injection sites. It is very important that you rotate the site of an injection each time you give the medication. Prepare the injection site by wiping with an alcohol swab. Insert the needle into your skin. Deliver the dose by pressing the push button all the way in. Be careful only to press the push button when injecting **[G]**. **Keep the push button fully depressed and let the needle remain under the skin for at least 6 seconds**. This will ensure that the full dose has been delivered.	

6. Remove the needle

Carefully put the outer needle cap back on the needle without touching the needle. Unscrew the needle and throw it away carefully as instructed by your doctor or nurse **[H]**.



Never put the inner needle cap back on once you have removed it from the needle. You may accidentally stick yourself with the needle.

Put the pen cap back on after every use.

Always remove and dispose of the needle after each injection and store the pen without the needle attached. This reduces the risk of contamination, infection, leakage of solution, blocked needles, and inaccurate dosing.

When the pen is empty, throw it away without the needle, as advised by your doctor or nurse.

Caregivers must be very careful when handling used needles - to reduce the risk of needle sticks and cross-infection.

7. Maintenance

Your Norditropin NordiFlex® pen must be handled with care.

Avoid situations where Norditropin NordiFlex® might be damaged.

Do not drop your pen or knock it against hard surfaces. If you drop it or suspect that something is wrong with it, always screw on a needle and check the flow before you inject.

Do not try to refill your pen – it is pre-filled.

Do not try to repair your pen or pull it apart.

Protect your pen from dust, dirt, frost and direct sunlight.

Do not try to wash, soak or lubricate your pen. If necessary clean it with a mild detergent or a moistened cloth.