



CONSUMER MEDICINE INFORMATION

NutropinAq (Somatropin (INN) recombinant DNA origin, *Escherichia coli*.)

What is in this leaflet?

This leaflet answers some common questions about NutropinAq. It does not contain all the available information. It does not take the place of talking to your doctor or pharmacist.

All medicines have risks and benefits. Your doctor has weighed the risks of you taking NutropinAq against the benefits he/she expects it will have for you.

If you have any concerns about taking this medicine, ask your doctor or pharmacist.

Keep this leaflet with the medicine. You may need to read it again.

What is NutropinAq?

The active substance of NutropinAq is somatropin. Somatropin is human growth hormone, which is made by genetic engineering using the bacterial micro-organism *Escherichia coli*. The structure of somatropin is identical to human growth hormone of pituitary origin.

Somatropin has effects that are equivalent to human growth hormone of pituitary origin. Growth hormone exerts significant effects directly on the production of other hormones, e.g. IGF-1, and on metabolic actions. The anabolic and growth-promoting effects of somatropin are to some part indirect effects mediated by IGF-1.

What NutropinAq is used for

NutropinAq is indicated for:

- Long-term treatment of children with growth failure due to inadequate endogenous growth hormone secretion.
- Long-term treatment of growth failure associated with Turner syndrome.
- Treatment of prepubertal children with growth failure associated with chronic renal insufficiency up to the time of renal transplantation.
- Replacement of growth hormone in adults with growth hormone deficiency originating in either childhood or adulthood.

Your doctor may have prescribed NutropinAq for another reason. Ask your doctor if you have any questions why NutropinAq has been prescribed for you.

Before you use NutropinAq

Do not use NutropinAq:

- In case of hypersensitivity to somatropin or any of the other ingredients.
- For growth promotion if growing is already finished.
- If an active tumour arises. Somatropin therapy should be discontinued if evidence of tumour growth develops.
- During acute critical illness due to complications following open-heart or abdominal surgery, multiple accidental trauma or in case of acute respiratory failure.

The diagnosis and management of somatropin therapy should be initiated and monitored by adequately experienced physicians.

Take special care with NutropinAq:

- In patients with previous malignant disease, the doctor should give special attention to signs and symptoms of relapse.
- In patients with a history of brain lesions, the patient should be examined frequently for a progression or recurrence of the lesion.
- Children with Prader-Willi syndrome should not be treated with NutropinAq unless they are also suffering from growth hormone failure.
- In patients with acute critical illness in intensive care units, the doctor should carefully evaluate the safety of continuing somatropin treatment.
- If a limp or hip or knee pain develops during growth, please ask the doctor for advice.
- In patients receiving NutropinAq, evidence of glucose intolerance should be monitored. If the patient also has diabetes mellitus, please consult the doctor regularly during NutropinAq therapy. The insulin dose may require adjustment after somatropin therapy is started.
- This medicinal product contains 82 mg of sodium per cartridge. To be taken in consideration by patients on a controlled sodium diet.
- If symptoms like visual changes, headache, nausea and/or vomiting occur, especially within the first 8 weeks after starting somatropin therapy, please ask the doctor for advice.
- In case of an untreated decrease of thyroid gland function (hypothyroidism), the optimal response to somatropin may be reduced. Severe hypothyroidism has to be treated prior to start of NutropinAq therapy.

- Since somatropin therapy following renal transplantation has not been adequately tested, growth hormone treatment should be terminated after that surgery.
- Adrenocorticotrophic Hormone (ACTH)-deficient patients should consult the doctor regularly during growth hormone therapy. The glucocorticoid replacement therapy may require adjustment after NutropinAq therapy has been started.

Pregnancy:

NutropinAq therapy should be discontinued if pregnancy occurs. Please ask your doctor or pharmacist for advice before taking any medicine.

Breast-feeding:

It is not known whether somatropin is excreted in human milk. However, absorption of intact protein from the gastrointestinal tract of the infant is unlikely. Please ask your doctor or pharmacist for advice before taking any medicine.

Driving and using machines:

No studies on the effects of NutropinAq on the ability to drive and use machines have been performed.

Somatropin has no known effect on the ability to drive or to use machines.

Using other medicines:

- Concomitant treatment with glucocorticoids may reduce the growth-promoting effect of somatropin.
- Because somatropin may reduce insulin sensitivity, patients with diabetes mellitus may require adjustment of their antidiabetic therapy.
- During concomitant administration of somatropin with corticosteroids, sex steroids, anticonvulsants or cyclosporin, please ask the doctor for advice.

Please inform the doctor or pharmacist of any other medicines that have been taken now or recently, including medicines taken without a doctor's prescription.

How to use NutropinAq

The doctor will advise you about the individualised dose of NutropinAq. Please do not change the dosage without consulting the doctor or pharmacist. In general the dosage will be calculated according to the following rules:

Growth failure in children due to inadequate growth hormone secretion:

0.025–0.035 mg/kg bodyweight given as a daily subcutaneous injection.

Growth failure associated with Turner syndrome:

Up to 0.05 mg/kg bodyweight given as a daily subcutaneous injection.

Growth failure associated with chronic renal insufficiency:

Up to 0.05 mg/kg bodyweight given as a daily subcutaneous injection.

Somatropin therapy may be continued up to the time of renal transplantation.

Growth hormone deficiency in adults:

Low initial doses of 0.15–0.3 mg given as a daily subcutaneous injection. The dose may be increased stepwise by the doctor according to the patient's individual requirements. The final dose seldom exceeds 1.0 mg/day. In general, the lowest efficacious dose should be received. For older or overweight patients lower doses may be necessary.

NutropinAq is designed for use only with the NutropinAq Pen. The product is for use in one individual only.

Please administer the prescribed dose of NutropinAq solution for injection subcutaneously each day and change the site of injection each time. At the start of therapy it is recommended that a doctor or a nurse give the injection. After training the injection can be given by the patient or his/her carer. The medicine is supplied in a cartridge as a sterile solution with preservative for multiple use. For each single injection please use a new, sterile injection needle. Do not use the solution unless it is clear and not cloudy. Please see also the instructions for use of the NutropinAq Pen.

Treatment with somatropin is a long-term therapy, for further information please ask the doctor.

If you use more NutropinAq than you should:

If more NutropinAq than recommended was injected, please consult the doctor.

Acute overdose could lead initially to a glucose decrease (hypoglycaemia) and subsequently to a glucose increase (hyperglycaemia). Long-term overdose may result in an enhanced growth of ears, nose, lips, tongue and cheekbone (gigantism and/or acromegaly). These signs are consistent with the known effects of excess in human growth hormone.

If you forget to take NutropinAq:

After missing an individual dose a double dose should not be injected. The prescribed dosage regimen should be continued.

Effects when treatment with NutropinAq is stopped:

A disruption or early ending of the treatment with somatropin may impair the success of the growth hormone therapy. Please ask the doctor for advice before stopping the treatment.

Which side effects can NutropinAq have?

Like all medicines, NutropinAq can have side effects.

Injection site pain, haematoma and reaction as well as headache and arthralgia (neuralgic pain in one or more joints) are the common side effects. An accumulation of fluids in the body with a mild transient swelling of the hands and feet or the face (oedema) were seen very commonly in adults with growth hormone deficiency.

Other less common side effects have been reported:

Those occurring at the injection site: injection site inflammation, atrophy, oedema, haemorrhage, hypersensitivity and injection site mass.

Those related to the heart: dilation of blood vessels, high blood pressure, abnormally rapid heart rate (tachycardia).

Those related to the stomach: vomiting, flatulence, feeling of sickness.

Those related to the musculoskeletal system: bone pain, arthrosis, joint disorder, muscular pain (myalgia), decrease in muscle size (muscle atrophy), muscular debility.

Those affecting the skin: rash, skin atrophy, skin hypertrophy, urticaria (allergic disorder marked by raised oedematous patches of skin or mucus membrane), exfoliative inflammation of the skin, excessive growth of hair on the face and body (hirsutism).

Those affecting the urogenital system: breast pain, breast enlargement (gynaecomastia), abnormally heavy bleeding at menstruation, urinary incontinence, discharge of mucus from the vagina (leukorrhoea), excessive secretion of urine, urine frequency, urine abnormality, urine haemorrhage.

Metabolic disorders: increase or decrease in blood glucose, increase in lipid, creatinine and phosphate levels in the blood, lipodystrophy (disturbed fat metabolism), bone disorder and necrosis, subnormal activity of the thyroid gland (hypothyroidism).

Nervous disorders: abnormal sensations (paraesthesia), excessive tension of the muscles (hypertonia), sleeplessness, somnolence, rapid involuntary movements of the eyes (nystagmus), personality disorder, vertigo.

Other possible side effects: loss of strength (asthenia), back pain, abdominal pain, neoplasm, peritonitis, ecchymosis (area of discoloration due to bleeding under the skin), anaemia, inflammation of the pancreas (pancreatitis).

Increased growth of birthmarks or moles (pre-existing naevi) may occur. The doctor should be consulted as soon as possible if any changed appearance of the skin is noticed.

Patients with endocrinological disorders are more prone to develop an epiphysiolysis.

As with all protein drugs, in a few patients antibodies may develop to the protein somatropin. Growth hormone antibodies with very low binding capacity have not been associated with adversely affected growth rate.

Leukaemia has been reported in a small number of growth hormone deficient patients treated with growth hormone. A causal relationship to somatropin therapy is unlikely.

Symptoms of benign increased brain pressure (benign intracranial hypertension), which are papilloedema, visual changes, headache, nausea and vomiting, may occur more often in children with chronic renal insufficiency receiving NutropinAq.

Carpal tunnel syndrome has been reported in adults more frequently than in children treated with somatropin.

If any side effects are noticed which are not mentioned in the leaflet, please inform the doctor or pharmacist.

If any side effect becomes troublesome or causes concern, tell your doctor immediately or go to the Accident and Emergency department at your nearest hospital. You may need medical attention.

Storage of NutropinAq

Keep out of the reach and sight of children.

Store at 2°C–8°C. Do not freeze.

Keep the container in the outer carton. Protect from light.

After first use, the cartridge may be stored for up to 28 days at 2°C–8°C. Do not remove the cartridge that is being used from the NutropinAq Pen between injections.

Do not use after the expiry date stated on the label of the cartridge and the carton.

Do not use NutropinAq if you notice that the solution is cloudy.

Product Description

What it looks like

NutropinAq 10 mg/2 mL solution for injection in a cartridge. NutropinAq is a solution for subcutaneous use. The clear, colourless, sterile solution for multidose use is contained in a cartridge of glass, closed with a rubber stopper and a rubber seal.

NutropinAq is available in pack sizes of 1 and 3 cartridges.

Ingredients

Each cartridge of NutropinAq contains 2 mL of solution with a total of 10 milligrams corresponding to 30 International Units (IU) of the active substance somatropin.

The other ingredients are sodium chloride, phenol, polysorbate 20, sodium citrate, citric acid anhydrous and water for injections.

Further information

If you have any further questions on your NutropinAq treatment, or are unsure of the information, please see your doctor, who will be able to assist you.

Manufacturer/Supplier

The manufacturer of NutropinAq and NutropinAq Pen device is:

IPSEN PHARMA BIOTECH S.A.S.,
Parc d'Activités du Plateau de Signes
CD no 402
83870 Signes,
France

The product is supplied in Australia by:

Ipsen Pty Ltd
Suite 6, 40 Montclair Avenue, Glen Waverley Victoria 3150

AUST R No: 116 678

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NutropinAq Pen

Instructions for use with NutropinAq

DO NOT INJECT THE MEDICINE UNTIL YOUR DOCTOR OR NURSE HAS THOROUGHLY TRAINED YOU IN THE PROPER TECHNIQUES.

Caution:

Before using your NutropinAq Pen, please read the following instructions carefully. We also suggest you consult your doctor or nurse for a demonstration.

The NutropinAq Pen is designed for use only with cartridges of NutropinAq (for subcutaneous use only). Only use the pen needles recommended by your doctor or nurse.

The dosage scale located beside the window of the cartridge holder should not be used as a dose measurement. It should only be used to estimate the dosage remaining in the cartridge. Always refer to the LCD (Liquid Crystal Display), not audible clicks, for setting an injection of NutropinAq. The clicks are only audible confirmation that the black dose knob has been moved.

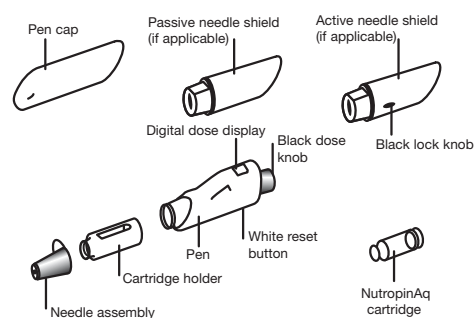
Always store the pen and cartridges in a clean, safe place in the refrigerator at a temperature between 2°C–8°C and out of children's reach. Protect from intense light. Use a cooler to store your NutropinAq Pen when travelling. NutropinAq is designed to withstand a nominal (one hour maximum) period of time outside of the refrigerator on a daily basis. Avoid areas of extreme temperature. Check the expiry date of the cartridge before use.

To guard against the spread of infection, follow these safety measures:

- Wash your hands thoroughly with soap and water before using your pen.
- Clean the cartridge rubber seal with an alcohol swab or cotton ball saturated with alcohol.
- Avoid touching the cartridge rubber seal at all times.
- If you accidentally touch the cartridge rubber seal, clean it with an alcohol swab.
- The product is for use in one individual only.
- Use needles only once.

NutropinAq Pen components:

Shown below are the items necessary for giving an injection. Gather all of these components prior to use.

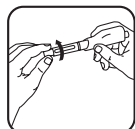


Your NutropinAq cartridge will be supplied separately.

Part I: Preparing and Injecting

Follow the instructions in this section if you are using the pen for the first time or are replacing an empty cartridge.

Inspect all new cartridges prior to use. Occasionally, after refrigeration, you may notice that small colourless particles are present in the NutropinAq solution. This is not unusual for solutions containing proteins like NutropinAq and does not affect the strength of the product. Allow the cartridge to come to room temperature and gently swirl. Do not shake. If the solution is cloudy or hazy or contains any solid matter, the cartridge should not be used. Return the cartridge to your pharmacist or prescribing doctor.



1. Remove the green pen cap and unscrew the cartridge holder from the pen. If necessary, remove the empty cartridge and discard it properly.

2. Press the white reset button.



3. Turn the black dose knob counter-clockwise back to its starting position until it no longer turns. (See illustration.) Then turn the dose knob clockwise until the first click position is reached (approximately ¼ turn). This ensures that the plunger push rod is reset to the starting position. If this is not done when the dosage knob is first pushed in, NutropinAq will be wasted or the cartridge may crack.



4. Insert cartridge into the cartridge holder, then screw the cartridge holder back onto the pen. (Be careful not to touch the rubber seal.)

5. Remove the paper seal from a new needle assembly and screw it onto the cartridge holder.

6. Carefully remove both protective caps from the needle by pulling gently. Do not throw the larger cap away as it will be used later for proper needle removal and disposal.



7. Holding the pen with the needle pointing upward, gently tap the cartridge holder to move any air bubbles to the top. While still holding the pen in the upright position, push in the black dose knob until it clicks into position. You should see a drop of solution appear.

Be patient. If medicine doesn't appear within a few seconds, you may need to push the reset button again.



8. If no drop of medicine appears, push the white reset button again. Now turn the black dose knob clockwise (See illustration) by one click (0.1 mg). If you accidentally turn it too far, go back one click (0.1 mg).

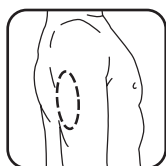
9. While still holding the pen in the upright position, push in the black dose knob again and watch the needle tip for a drop of medicine to appear. Repeat steps 8 and 9 until it appears.

10. Press the white reset button. (The digital dose display will blink for 5 seconds.)

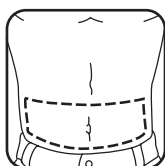


11. Set the required dose by turning the black dose knob. If you cannot dial the full dose, either start a new cartridge (as described in Part I), or inject the partial dose. Then, start a new cartridge (as described in Part I) to administer the remaining portion of your medication. Your doctor or nurse will advise you on the procedure for administering the last dose in the cartridge.

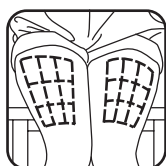
Prepare the injection site by wiping with an alcohol swab. Injection sites include the upper arms, abdomen and upper thighs. Change the injection sites to avoid discomfort. Even if you develop a preference for one site, you still should rotate the injection site.



Upper arm



Abdomen



Thigh



12. If you are using the passive shield (or no shield) proceed to step 13. If you are using the active shield, slide the shield onto the pen and push the 2 black lock knobs on the needle shield toward the tip.

13. Set the tip of the pen on the prepared injection site and press the needle into the skin by pushing the pen downward until the shield is totally depressed. Your doctor or nurse will show you how to do this. Now you are ready to administer the dose. Press down on the black dose knob. Wait 5 seconds after the button is pushed, then withdraw the pen from the skin. A drop of blood may appear. Put a plaster on the injection site if you wish.

14. Pull the needle shield off the pen (if you have used one) and place the larger needle cap on a flat surface. Slide the needle in to pick it up and push the cap completely down over the needle. Twist off the needle and discard it properly. Your doctor or nurse will tell you how to dispose of the items you have used for the injection. Always store your disposal container out of the reach of children.

15. Attach the pen cap and return it to its case with the black dose knob pressed in. You should always store the pen in a refrigerator. Do not remove cartridge between injections. **DO NOT FREEZE.**

For subsequent injections with the NutropinAq Pen, attach a new needle, push the white reset button and dial your dose.

Part II: Storage and Maintenance

Follow these tips to ensure proper care of your NutropinAq Pen:

- Always keep your NutropinAq Pen and cartridge refrigerated and protected from light when not in use.
- You may remove the pen and cartridge from the refrigerator up to 45 minutes prior to use.
- Do not let your NutropinAq Pen and/or cartridge freeze. Contact your doctor or nurse for a replacement if either the pen or cartridge does not work.
- Avoid excessive temperatures. The solution in the cartridge is stable for up to 28 days after first use when stored at 2°C–8°C.
- If your pen requires cleaning, do not place under water. Use a damp cloth to wipe away dirt. Do not use alcohol.
- When priming a new cartridge, you may need to repeat Part I, steps 8 and 9 up to a total of 6 times (0.6 mg) to remove air bubbles. Small bubbles may remain and will not affect the dose.
- The pen should contain the NutropinAq that is being used. Do not remove cartridge between injections.
- The NutropinAq cartridge may be used for up to 28 days.
- Do not store the NutropinAq Pen with needle attached.

Part III: Needles for the NutropinAq Pen

Your doctor or nurse will recommend a needle that is appropriate for you. Always use the needles recommended.

Needles from other countries may not fit on your NutropinAq Pen. If you travel outside Australia, make sure you take enough needles for the duration of your stay.

Part IV: Commonly Asked Questions

Q: Do I need to change the needle every time I use my NutropinAq Pen?

A: Yes. A new needle should be used for every injection. The needle is only sterile on the first use.

Q: Where should I store my NutropinAq Pen?

A: Your NutropinAq Pen should be stored in the case, inside a refrigerator when a cartridge is inserted. When travelling, place your pen case in a cooler. **DO NOT FREEZE.**

Q: Why do I keep my medication in the refrigerator?

A: To maintain its strength and to inhibit the growth of any contaminating micro-organisms that may be introduced by repeated needle insertions.

Q: Can I store my NutropinAq Pen in the freezer?

A: No. Freezing will damage the pen and drug.

Q: How long can I keep my NutropinAq Pen and cartridge outside the refrigerator?

A: We recommend no longer than 1 hour. Your doctor or nurse will advise you regarding pen storage.

Q: What is the maximum dose the NutropinAq Pen can deliver in one injection?

A: The NutropinAq Pen can give a minimum dose of 0.1 mg up to a maximum dose of 4.0 mg (40 clicks). If you attempt to dose more than 4 mg at a time, either the drug will be forced out of the needle and wasted or excess pressure will be placed upon the cartridge and it may crack.

Q: Is it possible to turn the black dose knob back if I click too many times?

A: Yes. You can turn the black dose knob backwards until the correct number appears in the LCD.

Q: What should I do if there is not enough solution left in the cartridge for my next dose?

A: Your doctor or nurse will advise you what to do for the last dose in the cartridge.

Q: Why do I have to rewind the black dose knob on my NutropinAq Pen every time I replace the cartridge?

A: This ensures that the plunger push rod completely resets itself back to the starting position. If this is not done, liquid will come out of the needle when a new cartridge is placed into the pen.

Q: Can I use my NutropinAq Pen without the shields?

A: Yes. Your NutropinAq Pen works without shields. The shields

are optional to help you administer your injection.

Q: What should I do if I drop my NutropinAq Pen?

A: If you drop the NutropinAq Pen, check to see if the cartridge is damaged. You should also check the pen to see that the black dose knob is moving up and down properly and that the LCD counter is working. If your cartridge or pen is damaged, ask your doctor or nurse for a replacement.

Q: How long can I use my NutropinAq Pen?

A: The NutropinAq Pen is designed to last 24 months from the time you first use your pen.

Q: What does a blinking 'bt' mean in the LCD?

A: The battery in your NutropinAq Pen is losing its charge. Please contact your doctor or nurse for a replacement pen. Batteries typically last 24 months and have a 4-week life from the time the 'bt' first starts blinking.

Q: How do I replace my NutropinAq Pen?

A: Contact your doctor or nurse if you need a replacement part or if you need to replace your entire pen.