

Nasal Hygiene



This brochure will guide you through the steps to be followed in order to adequately perform nasal hygiene on your child and will answer any questions you might have.

Why perform nasal hygiene?

The nose helps you filter, humidify and warm up the air you breathe. In order to fulfill its role this “filter” should be clean! A congested nose prevents the child from easily breathing and can hinder his/her sleep and alimentation.

Did you know? Children produce on average one liter (4 cups) of nasal secretions every day and even more when they suffer from colds or respiratory allergies (pollen, dust, etc.) It is not easy for children to take care of these secretions when they cannot efficiently blow their nose. Thus, they need the support of their parents to help them breathe properly.

In Canada, children suffer from approximately 6 to 8 colds each year, specially between the months of October and May. Each cold can develop into an ear infection (otitis), sinus infection (sinusitis), chronic cough or breathing problems. As well, 20% of children suffer from allergic rhinitis* (nasal congestion with clear mucus, dry cough, sneezing with nose and throat itching or tingling).

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Regular nasal hygiene with a saline solution will eliminate secretions and small particles (dust, pollen, animal dander, etc.). This will diminish congestion, humidify the nose and prevent nosebleeds. It will also promote:

- ▶ Better feeding and better sleep;
- ▶ Less colds and colds of shorter duration;
- ▶ Less otitis, sinusitis and coughs;
- ▶ Less use of antibiotics;
- ▶ For children suffering from asthma, a better control of their condition;
- ▶ Less absences from day care or school for the children and from work for their parents.

It is recommended to start regular nasal hygiene from birth and to continue till the child is 7 or 8 years old or even longer if necessary.

*For additional information on this subject, you can consult the following web site: <http://santé.gouv.qc.ca>

Also, you should know that the sooner your child is capable of blowing his/her nose adequately, the less frequently you will have to apply nasal hygiene procedures. It would be good to remember that prevention is always easier than to cure! Carrying out a good nasal hygiene on your child will take about **5 to 10 minutes** daily and will lessen the frequency of infections to respiratory tracts, thus less visits to health professionals.

Does your child go to a day care center? Your doctor or your specialized nurse practitioner can give you a prescription for nasal hygiene to be applied at the day care center.

Saline solution recipe

Nasal hygiene can be performed with a saline solution **prepared at home at no cost or with the commercial preparation** (Sinus Rinse™, NetiRinse™) at **very little cost**. The application technique is given in the section corresponding to the age of your child.

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If your child is less than 3 months old or is suffering from an immunodeficiency or is receiving a chemotherapy or radiotherapy treatment, it is important to use water which has been brought to a heavy boil for 3 minutes in order to make it sterile.

Home-made saline solution

1 litre (4 cups) of tap water

10 ml (2 teaspoons) of salt*

2.5 ml (1/2 teaspoon) of baking soda

1. Heavily boil water for 3 minutes and then add the other ingredients to the boiled water.
2. The solution will keep for 7 days in the refrigerator in a clean airtight glass container.

* Table salt contains iodine and other agents which can irritate the nose! If necessary, you can buy pickling salt which does not contain these ingredients.

3. Every night, shake the solution container in order to dissolve the salt which will have deposited at the bottom during refrigeration and take out the quantity of solution necessary for 24 hours to insure that the solution will be at room temperature ready for use the morning after.
4. To prevent contamination between family members, for each child, pour the saline solution in a clean little container (technique for irrigation with a syringe) or in a little bottle (technique for irrigation with a bottle) and properly identify each container or bottle with the name of each child.
5. This solution can be used by the whole family. Thus, you can double or triple the recipe if needed.

Preparation made with a commercial packet

- ▶ Use tap water or bottled water (if your tap water is not drinkable water). Pour 240 ml of water in the bottle supplied with Sinus Rinse™ or NetiRinse™ or any other clean container and add the packet (blue envelope for Sinus Rinse™ and white envelope for NetiRinse™, sold in packages of 100 or 200 little packets at the drugstores or department stores). Shake the bottle or container to mix well and the solution is then ready to be used. This prepared solution can be kept at room temperature for only 24 hours since the water used has not been boiled for 3 minutes and the preparation is clean but not sterile.
- ▶ If you wish to prepare a solution which can be kept for 7 days in the refrigerator, you only have to use tap water which has been brought to heavy boil for 3 minutes.

For either the home-made or commercial preparation, if when using the saline solution your child seems to be uncomfortable because the solution is too cold, you can warm up the solution a little by putting the bottle in a container of hot water. Always verify the temperature of the solution on your wrist before usage so that it is at body temperature or about 37° C.

For children less than 2 years or older children having difficulty protecting their airways

Technique for irrigation with a syringe

Minimum frequency recommended for your child

Summer Once a daily	Winter (Oct. to May) 2 to 3 times a day	Cold or congestion 3 to 6 times a day
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Here are the quantities of saline solution recommended for the age of your child. If your doctor has suggested a different quantity, you should follow his/her advice.

Premature	1 to 3 ml per nostril
< 6 months	3 to 5 ml per nostril
> 6 months	5 to 10 ml per nostril

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Some children might have difficulty in getting used to nasal hygiene. If your child badly tolerates nasal hygiene, try beginning by using smaller quantities. Then, you can progressively increase the dosage till you have attained the quantities recommended above.

Technique in supine position for children under 6 months or older children, but having difficulty protecting their airways (encephalopathy, eating disorders with gastrostomy, etc.)

1. Always wash your hands BEFORE and AFTER having performed nasal hygiene on the child.
2. Fill up a syringe with the saline solution, whether home-made or commercial (see the above table for the quantity).
3. Place your child on his/her side and put a washcloth under the nose of the child and irrigate the upper nostril by emptying rapidly the content of the syringe. Secretions can leak out of both nostrils and also from the mouth.
4. Then turn your child on the other side so that the other nostril is up and repeat the same technique.

5. If your child is unable to blow his/her nose, wipe the nose with tissue. If necessary, repeat steps 2, 3 and 4. Your child should then have a clean nose with a good air flow.

Technique applied by one person

1. It might be easier if you swaddle your child in a large towel. The child is then seated on your knees with his/her head standing straight (tilted neither to the front nor the back). You can place a towel on the child to prevent his/her getting wet.
2. You can put one hand on the child's jaw in order to stabilize him/her and then press your cheek on that of your child so that he/she cannot move during the technique.
3. Hold the syringe with your other hand. Insert the tip of the syringe in one nostril. Bend lightly forward.
4. Quickly empty the content of the syringe in one of the child's nostrils. Secretions might leak out of both nostrils as well as from the mouth.
5. Use the same technique for the other nostril.
6. If your child is unable to blow his/her nose, wipe the nose with a tissue. If necessary, repeat steps 2, 3 and 4. Your child should then have a clean nose with a good air flow.



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Technique applied by two persons

1. It might be easier if you swaddle your child in a large towel. The child is then seated with his/her head standing straight (tilted neither to the front nor the back) on the knees of the person helping you with the child's back firmly resting on her belly. The person helping you can maintain the legs of the child between her own legs. One of her hands is used to hold the child's arms. Her other hand rests on the child's forehead to prevent any movements of the head.
2. With one of your hands hold a washcloth under the nose of the child. Hold the syringe in your other hand. Insert the tip into one nostril. Bend lightly forward.



3. Quickly empty the content of the syringe in one of the child's nostrils. Secretions might leak out of both nostrils as well as from the mouth.
4. Use the same technique for the other nostril.
5. If your child is unable to blow his/her nose, wipe the nose with a tissue.
6. If necessary, repeat steps 2, 3 and 4. Your child should then have a clean nose with a good air flow.

For children older than 2 years

Technique for irrigation with a bottle

Minimum frequency recommended for your child

Summer	Winter (Oct. to May)	Cold or congestion
Once a day	Twice a day	3 to 4 times a day

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Nasal irrigation is more efficient than atomization. Nasal irrigation technique can be performed as soon as the child is 2 years old. Sometime introduction to nasal irrigation can be difficult at that age. You just have to gradually familiarize you child with the technique. The irrigation can be performed by either the parents or the child himself. With your child you can consult a video* which shows the nasal hygiene technique and how easy it is to perform nasal irrigation.

1. Wash your hands BEFORE and AFTER nasal hygiene.
2. Fill up the nasal irrigation bottle with the saline solution (home-made or commercial preparation).
3. Place the child in front of the sink, with his/her head tilted forward and his/her mouth open.
4. Place the tip of the bottle tightly in a nostril.
5. Press on the bottle till the solution runs out of the opposite nostril.
6. Ask your child to blow his/her nose one nostril at a time.
7. Repeat steps 4, 5 and 6 for the other nostril.

*https://www.youtube.com/watch?v=H_z7PLTpRMA

8. Your child should then have a clean nose with a good air flow. Should that not be the case, repeat steps 4, 5 and 6. You should use at least the content of half a bottle. If needed, use the full bottle. You can even refill the bottle and start all over again.

This technique may induce **some ear-ache**. Should this happen, continue the irrigation but apply less pressure on the bottle and do not put the bottle as tightly in the nostril. If there is still some pain, you may change technique and use the technique for irrigation with a syringe.

No matter how old is your child, the **8 ounce (240 ml) format** is recommended. However, it may be easier for very young children (between 2 and 3 years old) to start with the smaller 4 ounce (120 ml) size.

After each usage, clean thoroughly all equipment used. Fill up the bottle with soapy water. Insert the central tube and the cap. Put your finger over the opening and shake well. Rinse with clear water in order to eliminate any soap residue. Let the bottle dry on a clean cloth for the next use.

It is recommended to change the nasal irrigation bottle every 3 to 6 months or if the plastic becomes discolored. For additional details, verify the manufacturer's recommendations

Technique for application with an atomizer (for a child older than 2 years)

Nasal hygiene by the irrigation technique with a syringe or a bottle is always more efficient than simple atomizations (Hydrasense™, Salinex™, etc). However, this technique can help the child to become familiar with regular nasal hygiene and help to progress to an irrigation technique.



1. Hands should be washed BEFORE and AFTER the nasal hygiene.
2. Seat your child in front of you, head standing straight (not tilted either backward or forward). Ask your child to look in your eyes to prevent him/her from moving.
3. Place half the tip of the atomizer in the center of a nostril. Proceed delicately to prevent your child from wrinkling his/her nose. Apply 5 atomizations in each nostril. Your child can breathe through the mouth during the atomizations.

4. Make your child blow his/her nose one nostril at a time asking him/her to close his/her mouth.
5. If needed, repeat steps 2, 3 and 4. Your child should then have a clean nose with a good air flow.

At least once a day, clean the atomizer tip under hot water.

How can I teach my child who is over 2 years old how to blow his/her nose?

- ▶ Place a very small cotton ball on the table.
- ▶ Your child should keep his/her mouth closed, and ask him/her to move the cotton ball on the table by blowing through his/her nose. When your child is able to blow through his/her nose, he/she can learn how to blow his/her nose one nostril at a time. Try to move the cotton ball by blowing through one nostril at a time. Your child should then keep his/her mouth closed, press on one nostril and blow through the other.

Should the condition of your child be of concern to you or for additional information, do not hesitate to communicate with the Health-Info service at 811 or call a doctor.

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Comité des documents destinés à la clientèle

Printed

Imprimerie du CHU Sainte-Justine

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F-886 A GRM : 30007177 (Version : 01/2018)