There is no single simple solution to the problems of nasal congestion and chronic catarrh in children with Down syndrome. Basically the whole skeletal structure of the mid-face and of the throat area behind the mouth tends to be rather cramped so that drainage of normal mucous secretions is compromised. This leads to mucus pooling and stagnating in the nasal passageway and provides a focus for infection. Once infection sets in yet more mucus is produced and a vicious circle results. As a general rule as children get older the situation improves as the airways behind the nose and mouth widen. There are nevertheless some adults who continue to have problems.

People have in the past probably been too accepting of the problem, regarding it as an inevitable part of the syndrome. We think that health professionals and parents should now try to be a little more proactive in trying to relieve children of the more severe effects of persistent catarrh which often has a detrimental effect on their general health and well-being. Also, for those who are very congested, reduction of the level of congestion can improve night breathing problems and glue ear.

There are several lines of treatment available for those with significant problems. Different strategies work for different children but here are a few ideas which may help.

**Nasal saline douches**

Saline (salt water) helps to loosen the mucous and so help its passage through the nose. Stérimar® nasal spray or equivalent nasal saline solution is available over the counter at a pharmacist. Applied twice a day when the nose is congested helps the child to clear the mucous from the nose. Used at night before going to bed this solution can help to maintain a good nasal passageway and improve night breathing. As the solution contains no medication it is safe to use on a regular basis.

**Nose blowing**

On the whole children with Down syndrome have even more difficulty than other children learning to blow their nose and this is often overlooked. However teaching a child with Down syndrome to blow their nose should be encouraged. Once learned this is probably the most effective method of removing mucous from the nose and if used in combination with saline douches could be all that is required to maintain a clear nose.

**Mechanical decongestion**

You may be able to keep the nasal airways clear mechanically by using a NUK nasal decongestor. This is an aspirator device. It consists of a rubber bulb and moulded nozzle to fit in the nostril. You simply suck out the muck. If you can keep the airways relatively clear for a couple of weeks then you stand a good chance of breaking into the vicious circle of congestion, stasis, secondary infection in the presence of stasis and excessive mucous secretion in response to infection. The problem with this strategy is that many young children will not tolerate having their nose cleared in this way. However, it has been very useful for several older children and teenagers who can actually take control of keeping their nose clear themselves sometimes benefit greatly.

**Dairy-free diet**

One has to approach this empirically but it does seem that more children with Down syndrome than in the general population have some degree of dairy food sensitivity and some at least are markedly improved if the intake of dairy products is reduced, or abolished. We usually advise parents to give a 4 week full dairy-free trial. If there seems to be an improvement then we advise that they should talk to a dietician about continuing with the diet because it is important to ensure that calcium and other nutritional intake is adequate. They may then get to a stage where they can play around with the diet and keep the child relatively mucous free with a lesser degree of restriction.

**Oral antihistamines**

Some children do respond to an antihistamine, for example Cetirizine (Zirtec®) once daily. This could make a difference and we advise that parents can try this for 6-8 weeks. If found to be of benefit during the trial it is useful to discuss further with your GP.

**Low dose antibiotics**

Low dose antibiotics can be enormously effective in treating chronic catarrh. If the catarrh is offensive and greenish yellow, we usually start off with a full dose of an antibiotic such as Amoxicillin for some days until the colour clears and then cut down to a maintenance low dose of Trimethoprim (5ml daily). Your own doctor may however recommend something different. We keep the low maintenance dose going for 6-8 weeks then stop. If the condition recurs we give a further course. Some children are clear in the summer months but need low dose antibiotics in the winter.

**Nasal decongestant sprays**

If there is any indication of a hay fever type association it may be worth trying either an antihistamine spray or one containing sodium cromoglicate (Rynacrom®).

**Oral decongestants**

Although these are generally not advocated we have known parents who swear by a daily dose of Actifed or Sudafed as a means of keeping the airways clear.

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By Dr Jennifer Dennis and Mr Patrick Sheehan

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Many children with Down’s syndrome attend mainstream school.
To sum up

It is often worthwhile experimenting with some of these approaches and you may need to use more than one at a time. On the whole, if the catarrh is offensive you have to start off by clearing the infection with antibiotics before trying other strategies to keep the airways clear. If the above measures don’t work then ask your GP for a possible referral to an ENT Surgeon who may investigate the problem further.

Remember that in the past we have probably tended to be too accepting of catarrh as an inevitable part of Down syndrome but it is now time for all of us to be more proactive in trying to help those children affected by this unwelcome problem.

Dr Jennifer Dennis, Paediatrician, Down Syndrome Medical Interest Group (DSMIG(UK))

Mr Patrick Sheehan, Consultant Ear Nose and Throat Surgeon, Royal Manchester Children’s Hospital

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Provide the tools to help a person with Down’s syndrome live a full rewarding life of their own choosing

Get involved in payroll giving as a simple effective way to support the Down's Syndrome Association.

Payroll giving is a simple, tax effective way to give to DSA from your pay before you are taxed – increasing the impact of your contribution!

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Payroll giving helps the DSA plan for the future and there is no long-term commitment. Just tell your employer if you would like to change your donation level.

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By working together, we can continue to increase the opportunities for those with Down’s syndrome.

*Accurate at the time of printing: November 2011.