Alder Hey Children's
NHS Foundation Trust

Respiratory Department

Nasal Brushings

Information for Parent/Carer

Why do we do nasal brushings?

Collecting nasal brushings allows us to look in detail at cells in the nose which are covered with tiny hairs called ‘cilia’. The nose, ear canals and the airways in the lungs are covered with these ‘ciliated’ cells. They provide one of the body’s defences and work by ‘sweeping’ mucus, that may contain dust particles and bacteria, to the back of the throat where it is either swallowed or coughed out. Primary Ciliary Dyskinesia (PCD) is a condition where these cilia don’t work properly because they are not formed normally.

What is PCD?

PCD is a rare inherited condition. It affects approximately 1 in 15,000 live births. We may suspect PCD and want to take a closer look at the cilia in patients presenting with the following:

- Constant runny or blocked nose
- Persistent, daily wet cough
- Frequent chest/respiratory problems
- Recurrent ear infections or hearing problems
- Situs inversus (all organs located on the opposite to expected) or dextrocardia (just the heart on the opposite side to expected).

Treatments to help replace the job of the cilia (such as chest physiotherapy which helps move mucus out of the lungs) can improve symptoms and give better long-term health. Gaining more information about the cilia and confirming/refuting a diagnosis of PCD is important in understanding more about your child’s condition, targeting treatments/monitoring and ensuring any new treatments which emerge in the future are available to your child.

What does nasal brushing involve?

A small brush is placed inside one nostril. The brush is then rubbed against the ciliated cells at the back of the nose to get a sample. Young children will generally be sat on a parent’s knee with their head held gently by an assistant whilst the sample is taken. Taking the sample takes about 10 seconds. The sample is then sent away to be examined by laboratory specialists in Leicester who will use a microscope to look at the appearances of the cilia and how well they are moving.

What are the risks?

The procedure will feel uncomfortable for your child but will be very quick and any discomfort is short-lived. Your child’s eyes are likely to water, and it can cause them to sneeze. Occasionally a small nosebleed can occur. Your child can continue with their normal daily activities following the procedure. Sometimes if there aren’t enough ciliated cells in the sample, we may need to sample both nostrils.

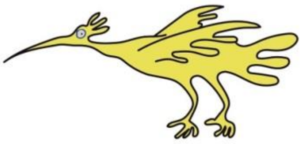
When should I postpose my nasal brushing appointment?

It is important we take the best possible sample we can to reduce the need to repeat the procedure. When your child has a cold, the cilia in the nose are damaged and it normally takes 4-6 weeks after cold symptoms have disappeared for the cilia to regenerate. If we take a sample during this time, either the sample will not contain cilia or the results will likely to be abnormal and a repeat sample needed. Therefore, we ask children not to attend within 4-6 weeks of having a cold. We would prefer you cancel and rearrange multiple appointments than have to turn you away after you’ve arrived for the appointment.

How long will results take?

It can take up to 6 months to get the results from the laboratory. The letter with the results often contains scientific terminology. There is usually a summary sentence at the end of the letter. These results will be discussed with you by the Consultant leading your child’s care. However, if you would like to discuss them earlier please contact RespiratoryPCO@alderhey.nhs.uk and a Consultant will call you. Sometimes we can’t definitively confirm or exclude a diagnosis of PCD and so the procedure has to be repeated.

If you have any questions after reading the above, then please contact the Respiratory department secretaries on: RespiratoryPCO@alderhey.nhs.uk



This leaflet only gives general information. You must always discuss the individual treatment of your child with the appropriate member of staff. Do not rely on this leaflet alone for information about your child’s treatment.

This information can be made available in other languages and formats if requested.

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