



Urology Service

Biofeedback

(pelvic floor training)

Information for parents/guardians/carers

Introduction

Your child's Doctor/Nurse has recommended to you that your child has biofeedback. This fact sheet aims to support the discussion you had with the Doctor/Nurse to enable you to make an informed decision.

What is biofeedback?

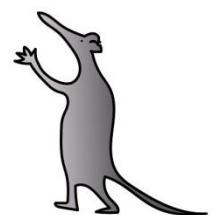
Biofeedback is a way of teaching children how to improve the muscle control of their pelvic floor control. It uses a laptop computer to provide visual feedback using animated figures. The nurse places small sensors, which we call "stickers", on the child's tummy, hips and bottom (near their pelvic floor). The stickers are attached to the computer by long wires. As the child squeezes and relaxes their pelvic floor, the computer measures the muscle activity and shows this as movement of the animated figures (cartoon characters). This provides constant feedback to the child and allows them to learn how to improve their muscle control. Biofeedback using animation helps keep the children entertained and interested during the training.

To understand the relevance of this training in children it is important to understand how the bladder normally works. The bladder is a muscular sac that is used to store urine. The bladder should remain relaxed as it fills with urine. A band of muscles at the bladder opening called the sphincter, contracts (squeezes) to keep the wee (urine) in the bladder whilst it fills with urine. The pelvic floor is made up of muscles which support the bladder and bowel. Contraction of the pelvic floor tightens the sphincter muscle. When the bladder is full, signals are sent to the brain to indicate the need to pass urine. For the bladder to empty, it must contract, and the sphincter and pelvic floor must relax at the same time to allow the bladder to empty. Problems with bladder emptying occur in children when the bladder and sphincter do not work together; the sphincter and pelvic floor continue to contract when the child is attempting to pass urine. This is referred to as 'dysfunctional voiding'.

What are the benefits of my child having biofeedback?

Dysfunctional voiding can lead to a variety of symptoms including:

- Recurrent urinary tract infections
- Start-stop urinary stream
- Incomplete bladder emptying
- Day and/or night-time wetting



Biofeedback teaches children to relax their pelvic floor to allow them to empty their bladder completely and reduce the above symptoms. It can also help prevent dysfunctional voiding in the future.

Before the decision is made to proceed with biofeedback a full assessment is completed to understand your child's current bladder and bowel habits. Your child will be asked, with your support, to complete a bladder diary. This includes measuring how much urine your child passes each time they go to the toilet and recording how many drinks they have. A diary of bowel movements is important to look for constipation. Constipation can prevent children fully emptying their bladder. Your child's doctor or nurse will discuss whether your child needs any treatment for constipation.

What are the risks of my child having biofeedback?

There are no risks to biofeedback. Children must have the mental ability and maturity to understand the relevance of the training. At Alder Hey we have used biofeedback in children as young as 4 years old, however, results are more successful in children over the age of 5 years. Your child's doctor or nurse will discuss this with you.

Will biofeedback hurt my child?

No, the procedure is painless. Some children are anxious regarding the placement of the stickers. If this is the case, the nurse can support you to apply the stickers correctly. Older children may want to put their own stickers on.



Are there any alternatives to this procedure?

All children with dysfunctional voiding should follow a bladder training programme. Your child should be encouraged to empty their bladder by spending more time on the toilet. They should count to 10 when they think they have finished as this can help ensure their bladder is empty. Double voiding (returning to the toilet shortly after urinating to try again) is also helpful. In addition, gentle stimulation of the bladder by a device called a Queen's bladder stimulator may help. Your child should be encouraged to urinate every 2 to 3 hours. This is called 'timed voiding'. Your child should sit on the toilet with their feet flat on the floor, legs apart and back straight. They may need a footrest to help them with this. Your child should be encouraged to drink 7 to 8 glasses of water or orange cordial at regular intervals throughout the day. They should avoid dark coloured cordial, such as blackcurrant, caffeinated and carbonated drinks.

If your child is unable to fully empty bladder then medication can help. Medication can cause side effects. Your doctor or nurse will discuss whether this is an appropriate alternative for your child. Some children require clean intermittent catheterisation to help empty their bladder. This is an invasive treatment, so we prefer to try less invasive alternatives, such as biofeedback, in the first instance.

What will happen if I decide my child will not have biofeedback?

Your child's doctor or nurse will discuss alternatives with you. Your child should continue with the bladder training programme discussed above.

How long will this procedure take?

The exercises take approximately 10 to 15 minutes. However, the appointment will last between 45 minutes and an hour as the nurse will ask your child some questions about their bladder and bowel symptoms before starting the exercises. The session will be tailored to meet your child's individual needs. Your child should attend the appointment with a full bladder.

Your child will be asked to empty their bladder on a special toilet. This is called uroflowmetry. The toilet is attached to a machine which produces a graph with the details of your child's urinary flow. If your child wishes, you can stay with them whilst they use the toilet. The nurse does not need to be present. A bladder scan will measure how much, if any, urine is left in the bladder. This will be

done at each appointment and is useful in documenting your child's progress. It is important, therefore, that your child attends the appointment with as full a bladder as they can manage.

What should I expect to happen during the appointment?

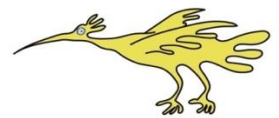
Your child should attend wearing appropriate clothing, such as a skirt, loose trousers or a long T-shirt. Your child is advised to drink plenty before the appointment, so they arrive with a full bladder. The nurse will place the stickers in the correct position. They do not need to remove their underwear. You can assist the nurse with this if you wish. Your child will be fully clothed whilst they do the exercises. Your child may stand or lie down to do the exercises. The exercises include quick and long pelvic floor squeezes, and the aim is to tire the pelvic floor, so it relaxes.

Discharge Information

Your child can go home or back to school as soon as the appointment ends. Each child is given an exercise plan to practice at home. The plan is tailored to your child's individual needs. The pelvic floor exercises are performed at home without the use of the laptop. Your child's nurse will show your child how to do this. It is important that you encourage your child to practice the exercises at least once daily. Biofeedback will not help your child if they do not practice the exercises at home.

Your child may like to watch a video to help them understand the pelvic floor function. This video has been produced especially for children at Alder Hey. It includes a dance exercise session that you may like to do with your child. Please access the video at the following link:

Link : <https://vimeo.com/468893298>
password : dolphin dances



Further appointment information.

Most children require between one and three sessions, but every child is different. Your child's nurse or doctor will discuss the most appropriate follow-up arrangements for your child. Your child will continue to have regular follow up with their urology doctor or nurse.

For further information.

Please contact the Urology Nurses on 0151 252 5852.

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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