NATIONWIDE CHILDREN'S
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Helping Hand™ Health Education for Patients and Families

# Biofeedback for Constipation and Pelvic Floor Dysfunction

Biofeedback is a therapy used to help children who cannot always have a bowel movement when they need to.

Two small muscles in the anus (opening from the rectum) help to control bowel movements. The muscles are the internal and external sphincters (s FINK ters). They are normally closed to prevent stool leakage. When a child has a bowel movement, these muscles must relax or open at the same time. They coordinate with the muscles of the abdomen (belly) and pelvis to allow the stool to come out. Sometimes a person's body signals may get confused and the belly, anal, and rectal muscles do not work together. This can cause constipation, pain or a hard time having a bowel movement.

In some children with constipation, the anal sphincter muscles do not relax. Instead, they do the opposite and squeeze when a child is in the middle of trying to have a bowel movement. This abnormal muscle function may cause the child to have a hard time passing stool.

By using biofeedback, the child can retrain anal sphincter muscles that do not relax with bearing down. Special exercises of the pelvic muscles along with the use of sensory and visual prompts are used during biofeedback therapy. This can help the child to use their belly muscles in the right way.

## Before biofeedback

There are no certain things to do to get ready for the test. Your child may eat a normal diet.

## During biofeedback

A visit usually lasts one hour. Testing is done in the gastrointestinal (GI) motility room. During the first visit, your child's bowel history and medicine regimen are reviewed. At the end of the visit you will be given instructions for your child's home program. You

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will also be given any changes in their medicines, if needed. Your child's active participation is very important to their success. Depending on the age, severity of problem and progress of the child, the visits may be once weekly for several weeks or once every 2 to 3 weeks, for up to 5 visits.

Your child will be asked to remove their underpants and will sit on a bedside commode (potty). A blanket or hospital gown covers the child's lap.

Biofeedback is done in a few different ways.

- Sensors (stickers) can be placed on your child's belly, buttocks, and hip or knee. These are connected to a small box (receiver).
- Another method involves placing a small, flexible tube, about the size of a thermometer, with a balloon at its tip. This tube, or catheter, is inserted into the rectum. The catheter has sensors and connects to a machine that measures the anal muscle sphincter pressure when the child pushes or bears down. The nurse or technician will ask the child to push at various times. The child strains down as if trying to have a bowel movement. This will determine if they are able to relax their external anal sphincter.
- The child may also be asked to do the balloon expulsion test (a measurement of the time it takes to push a balloon out of the rectum). For this test, the sensors are designed to measure the muscles that control bowel functions. As your child tightens or relaxes the muscles, they see changes on the computer monitor. The child watches a computer screen and uses the belly muscles to push as if having a bowel movement. This moves an object on the screen.

## After biofeedback

With the aid of the nurse or nurse practitioner, the child can learn to identify the correct muscles to use to make changes that will help them move their bowels.

## Risks and complications

Biofeedback requires a certain amount of cooperation from the child. If it is too hard for your child, we may need to stop it. Minor rectal irritation may occur if the catheter is used for the biofeedback.

Your child may complain of being dizzy or their head hurting if they are not used to pushing. This is only temporary. When the child stops pushing these feelings will stop.

## Results

Biofeedback gives visual, entertaining, and positive feedback to help your child retrain their pelvic floor muscles. With follow-up sessions and practice at home, they should be able to retrain these muscles and allow the anal sphincters to relax.