

Let's Talk About...

Autonomic Dysreflexia (AD)

Autonomic Dysreflexia (ought-oh-NAH-mic dis-reh-FLECK-sea-ah, also called dysreflexia, "AD" or autonomic hyper-reflexia) happens in people with certain spinal cord injuries. It happens in people whose injury is above a certain bone in the upper back or neck, called thoracic spinal vertebra 6, or "T-6." It happens more often when the spinal cord injury is caused by trauma; for example, a car accident. Irritations, below the point of injury, such as having a full bladder can trigger autonomic dysreflexia. The body sends messages through the spinal cord, but the messages never get past the damaged part to the brain. The brain does not receive the messages, and the body responds the wrong way.

Autonomic dysreflexia may cause a medical emergency requiring immediate attention. If dysreflexia is not controlled quickly, blood pressure can rise a great deal. This could cause stroke (the brain does not get the oxygen it needs) or death. Most people with a spinal cord injury at the T-6 level or above have episodes of dysreflexia. One episode of dysreflexia may last minutes or hours. Just because your child has not had dysreflexia before does not mean it will not happen. You should know the symptoms of dysreflexia and how to manage them. To stop problems, treat dysreflexia as soon as signs appear. You can prevent or manage dysreflexia with proper attention to bowel, bladder, and skin care and staying away from things you know cause dysreflexia for your child.

What causes autonomic dysreflexia?

Anything that causes irritation below the injury can cause dysreflexia. Here are some examples:

- Full bladder or severely spastic bladder
- Full bowel
- Bladder infection
- Kidney stones
- Medical tests of the urinary system or bowel
- Pressure sores
- Broken bones
- Ingrown toenails
- Infections
- Uncomfortable feelings such as pain, heat or cold below the injury level
- Uncomfortable body position
- Diseases of the stomach or bowels
- Childbirth/Pregnancy
- Sexual activity

What equipment should I have?

You should have a dysreflexia kit. Keep the kit stocked and keep it with your child at all times. The kit should contain the following items:

- Blood pressure cuff and stethoscope
- Numbing ointment for rectum
- Numbing gel for bladder
- Extra urinary catheters
- Supplies for catheterization
- Gloves
- Disposable waterproof underpad (Chux®)
- Medicine ordered by your child's doctor
- Syringe to deflate indwelling catheter, if your child has an indwelling catheter
- A copy of this handout

What are the signs of autonomic dysreflexia?

- Pounding headache
- Sweating above the level of injury
- Flushing or red splotches on the face
- Goosebumps
- Paleness or pallor below level of injury
- Nasal congestion
- Chills, without fever
- Blurred vision
- Raised blood pressure (You may need to treat even mildly raised blood pressure.)
- Anxiety
- Bradycardia

Normal blood pressure for people with a spinal cord injury is often much lower than people without a spinal cord injury. Your child's normal blood pressure is _____.

What should I do if my child has signs of dysreflexia?

- Sit your child up and lower his legs so gravity can help lower his blood pressure
- Loosen your child's clothing
- Take your child's blood pressure every few minutes.
 - If your child's blood pressure is normal or not more than 40 points higher than normal (either the top number or the bottom number), your child is in no immediate danger. Keep taking your child's blood pressure every few minutes.
 - If your child's blood pressure is 40 points higher than usual (either top or bottom number), give your child his blood pressure medicine immediately. If your child's blood pressure does not go down or if you have no medicine, go to the nearest emergency room immediately and keep trying to relieve the cause.

- If you know what causes your child to have dysreflexia, check that irritation first.
- If your child always has a catheter in, check the tubing for kinks and make sure the catheter is draining well.
- Squeeze numbing cream into your child's rectum (bottom) to numb the area and prevent further irritation. (Use numbing cream made for rectal use.) Wait two to five minutes and then check your child's rectum for poop. The wait allows the ointment to work. Check their rectum for poop and remove any that you can reach. After you do this, check your child's blood pressure.
- While you are waiting to check for poop, make sure your child's bladder is empty.
 - Put numbing gel into your child's urethra to numb the area. (Be sure to use numbing gel designed for bladder use.) This will prevent your child's blood pressure from getting higher.
 - If your child has a urinary catheter in, change it.
 - If your child is on an intermittent catheterization program, perform a catheterization to make sure your child's bladder is empty.
 - After you do all this, check your child's blood pressure.
- If your child's blood pressure stays high, keep trying to find the cause. Go to the emergency room if you cannot find the cause on your own.

What if I have more questions?

If you or your child's doctor has questions, please call the rehabilitation doctor for help. Learn the cause of your child's dysreflexia and talk about it with the rehabilitation doctor at your next visit.

Doctor's name _____

Doctor's phone number _____

Can my child avoid dysreflexia?

If you know what causes your child's dysreflexia, try to keep him away from those things. Follow your child's bowel, bladder, and skin programs to keep your child healthy.

How do I get help in the community?

Emergency room doctors may not know how to treat dysreflexia. Tell your emergency room and your child's doctor about dysreflexia before it happens so they know about it. Take this sheet with you for the doctor to read. Ask the emergency room doctor to call the rehabilitation doctor on call at Primary Children's Hospital.

Cut out the following wallet cards. Keep one in your dysreflexia kit. Keep one in something you keep with you, like a purse or a wallet.



DYSREFLEXIA

- A fast, major increase in blood pressure—20–40 mm Hg systolic higher than usual.
- A pounding headache
- Heavy sweating
- Flushed or reddened skin
- Goose bumps



- Blurry vision or seeing spots.
- A stuffy nose
- Anxiety or jitters
- Tightness in your chest, flutters in your heart or chest, or trouble breathing.

- Sit up or raise your head to 90 degrees. **Important: You need to stay sitting or upright until your blood pressure is normal.**
- Loosen or take off anything tight.
- Monitor your blood pressure about every 5 minutes.
- Check your bladder for drainage.
- Call your health-care professional, even if warning signs go away.
- If warning signs return, repeat steps, call your health-care professional, and go to the emergency room.
- At the emergency room, tell staff you need immediate care:
 - May have dysreflexia
 - Need to remain sitting up
 - Need blood pressure checked
 - Need causes of the problem sought

To obtain a complete guide, call toll-free, (888) 860-7244 or www.pva.org

©2000 PARALYZED VETERANS OF AMERICA

Reprinted with permission from Paralyzed Veterans of America. For more information about other available publications, please visit www.pva.org.