

# Managing Autonomic Dysreflexia (AD)

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## What is autonomic dysreflexia (AD)?

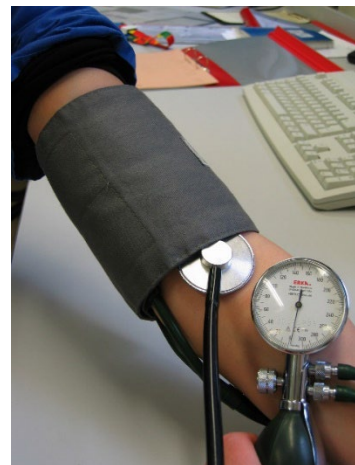
**Autonomic dysreflexia (AD)**, also called **autonomic hyperreflexia**, is a condition that may occur in people with a spinal cord injury. AD happens when your **autonomic nervous system** (the network of nerves in your body that control involuntary processes, like your heart beating) overreact to nerve signals that start below the level of your spinal injury. This can cause a dangerous increase in blood pressure.

**AD can become life threatening** if the condition is not addressed quickly and properly.

## How do I check for AD?

Check your blood pressure to see if it's higher than normal. It is important for you to know your normal blood pressure measurements.

- In adults, having a systolic (top number) blood pressure measurement of 20 mm Hg or more above your normal blood pressure could be a sign of autonomic dysreflexia.
- If you are age 15 or younger, having a systolic (top number) blood pressure measurement of 15 mm Hg or more could be a sign of autonomic dysreflexia.



## **What are the causes of AD?**

The most common causes of autonomic dysreflexia in patients with spinal cord injury are problems in the bladder, bowel, or skin. Listed below are some specific conditions that may cause AD:

### **Bladder causes:**

- Overfilled bladder
- Urinary tract infection (UTI)
- Stones in the bladder or kidney
- A blocked, clamped, or twisted catheter that is not working properly

### **Bowel causes:**

- Constipation
- Hemorrhoids
- Anal fissure (a tear in the lining of the lower rectum)
- Fecal impaction (a large, hard lump of poop that is stuck in the rectum) or doing manual disimpaction (including digital stimulation, or using your fingers to break up the fecal impaction)

### **Skin causes:**

- Wearing tight clothes, or clothes that don't let you move freely
- Pressure sores
- Blisters
- Skin infections or irritations, cuts, bruises, or abrasions (scrapes)
- Burns
- Ingrown toenails

### **Other causes:**

- Menstruation (having a period)
- Sexual touch or activity

- Scrotal compression (the scrotum, or skin around the testicles, getting hit or squeezed)
- Childbirth
- New trauma or injury (such as fractures, tendonitis, etc.)

### **What are signs and symptoms of AD?**

- Throbbing headache
- Profuse sweating (sweating a lot more than normal)
- Stuffy nose
- Shortness of breath
- Blurred vision
- Slowing heart rate
- Feeling unwell or anxious without a clear reason
- Flushing (redness) of the skin above the level of your injury

**If you are alone and you have any of these AD symptoms, call a friend to make them aware of the possible emergency.**

### **What should I do to treat AD and lower my blood pressure?**

- Sit straight upright (with your head up). If you can, lower your legs in your chair or bed below the level of your heart.
- Loosen or remove anything that is tight, including:
  - Clothes
  - Stomach binders
  - Compression stockings
  - Shoes
  - Leg straps or leg braces
  - Scrotal binders or supports
  - Unclamp or untwist any catheters
- Do pressure relief, or change your position in the wheelchair or the bed.

- If you use a straight catheter, do intermittent catheterization. If you use a Foley catheter, make sure the catheter tubing is not twisted and is draining well.
- If you are constipated, do a bowel program.
- Check your extremities (arms, legs, hands, and feet) for signs of injury like bruising, redness, or warmth.
- If you experience AD during sexual activity, stop that activity.
- If you have a prescription medication for urgent high blood pressure treatment, follow the prescription directions.
- If you can, continue to check your blood pressure every 5 minutes until you feel better (your AD symptoms go away).

### **When should I get emergency help?**

Go to the nearest emergency room if:

- You tried the actions listed above and they did not help to decrease your blood pressure below 140 mm Hg systolic within 30 minutes of experiencing AD symptoms.
- You have any of the following:
  - A severe headache that won't go away
  - Blurred vision
  - Confusion
  - Change in speech
  - Loss of consciousness (fainting or passing out)

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Author: Kathy Herman, RN

Reviewers: Edmund Chadd, MD, Gianna Rodriguez, MD, Alecia Daunter, MD, Courtney Meagher, RN

Edited by: Brittany Batell, MPH MSW

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