

Autonomic Dysreflexia (AD)

Autonomic dysreflexia (AD) is a dangerous rise in blood pressure that can happen after spinal cord injury. It affects people who have a spinal injury at level T6 or above. AD happens when you have pain or discomfort in the areas of your body that have no feeling. The most common cause of AD is a full bowel or bladder. When you have AD, you have other signs and symptoms at the same time. If you have these symptoms, you need to fix the problem right away. AD is a **medical emergency**. If not treated, it can cause stroke, heart attack, seizure, and death.

Symptoms

AD is a sudden rise in blood pressure by 20-40mmHg that happens with other symptoms. Since you cannot feel your blood pressure rising, you need to know the signs and symptoms of AD. If you have any of these symptoms, check your blood pressure right away. Symptoms of AD start suddenly. If you can't check your blood pressure, see a doctor right away.

Symptoms of Autonomic Dysreflexia	
Blood pressure increase by 20-40mmHg	
Pounding headache	Nasal congestion
Sweating or flushing of the face	Blurred vision
Goose bumps	Seeing spots
Increased muscle spasms	Nausea
Metallic taste in your mouth	Difficulty breathing
Feeling of anxiety	Slow heart rate

Treatment: Sit up to help lower your blood pressure. Find and remove the cause of AD. Check your bladder, check your bowel, and check your skin. If your blood pressure does not go down, get medical attention right away.

Contact your Doctor or Nurse for more information.

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Know your usual blood pressure

To know if your blood pressure has increased, you need to know your usual blood pressure. After spinal cord injury, blood pressure is often lower. Many people with an injury level of T6 and above can have systolic blood pressure of 90 to 110 (upper number). For some people it can be even lower. For these people, blood pressure above 130 can be a sign of AD.

Teach your family, friends & caregivers how to help you through an episode of AD.

What to do if you have symptoms

AD is a serious condition that must be treated right away. Once the cause has been treated, your blood pressure should go down. The symptoms should also go away. If your blood pressure stays high, go to the nearest emergency department.

Step 1: Check your blood pressure

Sit up and lower your legs if you are lying down. This will help lower your blood pressure. Check your blood pressure to see if it is high (20-40mmHg increase). If it's high, it's an emergency. Check your blood pressure every 5 minutes to see if it comes down. Keep a blood pressure monitor at home. They can be purchased at most drug stores.

Step 2: Check and empty your bladder

A full bladder can cause AD. One treatment for AD is emptying your bladder. To reduce your risk, keep a regular schedule for emptying your bladder. If you use intermittent catheterization, a numbing gel can help. Other events related to your bladder that can cause AD include:

- Blocked or kinked urine drainage tubes (Foley catheter or condom catheters).
- A condom catheter that is set too tight.
- Urinary tract infections or bladder/kidney stones.
- Bladder tests (urodynamics, cystoscopy). Numbing gel can help.

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Step 3. Check and empty your bowel

A full bowel can cause AD. Check your bowel for stool by doing a rectal touch. If stool is present in your bowel, gently remove it using your regular method. It is possible that your bowel program is a trigger for AD. If this is the case, you can use numbing gel during your bowel program. Always keep a regular bowel routine to reduce your risk. Other events related to your bowel that can cause AD include:

- Hemorrhoids
- Anal fissures

Step 4. Check your skin

Irritated skin and pressure points can cause AD. This can happen from tight clothing, tight shoes, or sitting on something hard. Extreme heat, cold, or pressure on your skin can cause AD. Make sure nothing is pressing on your skin. Other events related to your skin that can cause AD include:

- Ingrown toenail
- Sunburn
- Cuts or burns
- Trauma (e.g. broken bone)
- Pressure on the scrotum
- Bent toe in your shoe
- Tight or bunched up clothing
- Insect bites
- Blisters
- Pressure sore

AD affects people with an injury level of T6 and above. Most people have AD within 6 months of the injury. Almost everyone has an episode within the first year.

Other Causes of AD

Sexual activity can lead to AD. Causes can include intercourse, vibrators, pinched genitalia, orgasm, and ejaculation. Other causes can come from menstrual cramps, and child birth.

Medical conditions can also cause AD. These include stomach ulcers, heart attack, asthma, lung infections, and blood clots in your legs. If you cannot find the source of AD, get medical attention right away.

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If your blood pressure stays high, get medical attention

If your blood pressure does not go back to normal, go to the nearest emergency department. Do not drive. Inform hospital staff that you have AD and that it is a serious condition. Emergency room workers are not always aware of the special needs of people with spinal cord injuries. Carrying an AD card can be helpful.

Carry an AD card

Keeping a wallet sized card with you at all times can help in an emergency. It explains the warning signs and describes what to do. Write your normal blood pressure on your AD card. Give hospital staff your AD card and ask them to check your blood pressure right away. You may need medicine to bring your blood pressure down.

Try searching the internet for a printable wallet sized AD card. These websites have one:

- Paralyzed Veterans of America
- Christopher and Dana Reeve Foundation

Fact: AD is a medical emergency that must be treated immediately. If not treated, AD can lead to heart attack, stroke, seizure, and death.

How to prevent AD

Avoiding these triggers is the key to preventing AD.

- Wear loose clothing.
- Follow a regular bladder schedule.
- Follow a regular bowel schedule.
- Make sure that tubing is draining well (Foley and condom catheters).
- Check your skin regularly.
- Keep clothing and bedsheets free of wrinkles.
- Perform regular foot care to prevent ingrown toenails.
- Treat infections early (e.g. bladder infections).

Contact your Doctor or Nurse for more information.

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