



What is Autonomic Dysreflexia?

This is a condition of **sudden high blood pressure**, which may continue to rise and may cause a brain haemorrhage or fits.

The normal BP for this group of people is commonly 90/60 – 100/60 lying and lower when sitting. A BP of 130/90 is therefore high for them. If untreated it can rapidly rise to extreme levels e.g. 220/140.

What are the symptoms and signs?

- **Pounding headache, which gets worse as the blood pressure rises.**
- Blurred vision
- Flushing / blotching of skin above the level of the spinal cord injury
- Profuse sweating
- Goose bumps
- Chills without fever
- Bradycardia (slow pulse rate)
- Hypertension (high blood pressure)

What are the common causes?

- Bladder irritation e.g. distended bladder, urological procedure, urine infection.
- Bowel irritation e.g. distended rectum, chemically irritant suppositories.
- Skin irritation, e.g. pressure sore, ingrown toenail, burns
- Other e.g. contracting uterus, fractured bones, acute intra abdominal disease.

Patients and carers know about this condition and often can suggest the cause.

Ask if the patient has just taken a drug to control the autonomic dysreflexia.

Treatment

Two people are required to control the situation.

- 1) Sit upright or elevate the head of the bed. Loosen clothes and remove compression stockings and abdominal binder.
- 2) 2) If the person has an IDC or SPC:
 - i) Empty leg bag and estimate volume. To determine whether or not the bladder is empty, ask if volume is reasonable considering fluid intake and output earlier that day.
 - ii) Check that the catheter or tubing are not kinked or flow is not impaired by a blocked inlet to the leg bag or perished valve in the leg bag.

If the blood pressure > 170mm systolic, start drug therapy (see5).

- iii) If the catheter is blocked, irrigate GENTLY with no more than 30 mls of sterile water. Drain the bladder slowly – 500 ml initially and 250 ml each 15 minutes afterwards to avoid a sudden drop in blood pressure. If this is unsuccessful, recatheterize, using a generous amount of lubricant containing a local anaesthetic, eg. 2% lignocaine (Xylocaine) jelly.
- iv) If the blood pressure fails after the bladder is emptied, the person still requires close observation as the bladder can go into severe contractions causing hypertension to recur. Consider giving an oral anticholinergic medications, eg. Oxybutinin HCL.
- v) **Monitor the blood pressure for the next 4 hours.**





3. If the person does not have a permanent catheter:

If the bladder is distended, lubricate the urethra with a generous amount of local anaesthetic jelly e.g. lignocaine (Xylocaine) jelly, wait two (2) minutes, then pass a catheter to empty the bladder. Drain the bladder slowly (see 2iii).

4. If the constipation is suspected, check the rectum for faecal loading:

If the rectum is full, check the blood pressure – **if it is more than 150mm systolic, start drug treatment (see 5)**

Gently insert a generous amount of lignocaine jelly into the rectum and gently remove the faecal mass – Note: **if symptoms are aggravated stop immediately.**

If no response, i.e. if the elevated blood pressure does not start to fall within 1 minute of the above procedures, or the cause cannot be determined, treat as follows:

5) Glyceryl trinitrate.

NB **DO NOT** use glyceryl trinitrate if sildenafil (Viagra), or vardenafil (Levitra) has been taken in the previous 24 hours or tadalafil (Cialis) in the previous 4 days.

Give one spray of glyceryl trinitrate (Nitrolingual Pumpspray) under the tongue. During administration the canister should be held upright and the spray should not be inhaled.

OR

Place ½ a glyceryl trinitrate tablet (Anginine) under the tongue.

OR

Apply 5 mg, GTN patch according to the manufacturer's instructions. |

The hypotensive response should begin within 2-3 minutes and may last up to 30 minutes. A second spray/tablet may be given in 5-10 minutes if the reduction in the blood pressure is inadequate or if the blood pressure rises again.

Note: If glyceryl trinitrate is not available or is contraindicated (e.g. within 24 hours of sildenafil use), give one 10 mg nifedipine tablet (not a slow-release tablet crushed, mixed with water and swallowed

Avoid sildenafil (Viagra), vardenafil (Levitra) and tadalafil (Cialis) for 48 hours after a severe episode of autonomic dysreflexia.

If glyceryl trinitrate or nifedipine do not lower the blood pressure sufficiently and not been identified please contact the hospital, doctor or 000 so that you are able to be transported to hospital for emergency treatment.

All recommendations are for spinal cord injury patients at the 6th thoracic level must be made by combining these recommendations with clinical judgment.

This information is endorsed by the Aust. & New Zealand Spinal Cord Injury Soc.

