

AUTONOMIC DYSREFLEXIA

DEFINITION

- A sudden nervous system response to a condition that irritates the body
- It can happen to people with a spinal cord injury at T7 or higher
- It is common
- It is a **MEDICAL EMERGENCY** that raises the blood pressure so high, that it can cause death if not taken care of right away
- aka autonomic hyperreflexia, dysreflexia, A/D

CAUSES

- Full bladder
- Full bowel or constipation
- Bladder infection or bladder stones
- Tests done on the bladder
- Pressure sores
- Ingrown toenails
- Labor and delivery
- Genital stimulation (or pressure)
- Ejaculation
- Tight clothing or shoes
- Severe menstrual cramps
- Fractures bones (traumatic pain)
- Sunburn
- Abdominal medical problems
 - Gall stones
 - Appendicitis
 - Kidney stones
 - Ulcers
- Hot and cold temperatures
- Some drugs
 - e.g. digoxin

COMMON SYMPTOMS

- Sudden severe rise in blood pressure
- Pounding headache
- Change in heart rate
- Flushed skin above level of injury
- Sweating above or below level of injury
- An “aura”
- Anxious feeling
- Blurred vision
- Stuffy nose
- Shivering above level of injury
- Goose bumps below level of injury
- Pale skin below level of injury

WHAT TO DO IF IT HAPPENS

- **GOAL: Remove the cause**
 1. SIT UP if lying down
 2. LOOSEN clothing, legbag straps, and shoes
 3. Check for BLADDER issues
 4. Check for BOWEL issues
 5. Check for SKIN issues
 6. Seek MEDICAL ATTENTION

PREVENTION

- Do regularly scheduled bladder and bowel programs
- Do routine skin care and nail care
- Avoid extreme hot or cold
- Take prescribed medications

EDUCATION

- Family members
- Family physicians
- Health care providers
 - Attendants, homecare nurses, etc
- Emergency technicians
 - Ambulance attendants, etc

Medical Alert – Autonomic Dysreflexia (AD)

AD is a potentially life threatening complication of spinal cord injury above T7 level. It is caused by an unopposed sympathetic nervous system response to noxious stimulation below the level of the injury. Blood pressure may rise dangerously. The most typical cause of AD is distended bladder. Other causes could be distended bowel, pressure sore, in-grown toenail, etc.

Symptoms may include elevated blood pressure (normal after SCI may be 90/60), headache, sweating, flushed face, anxiety, bradycardia. Treatment is to remove the cause. Once the cause is removed the BP will return to normal immediately.

Autonomic Dysreflexia Treatment

1. Raise the head of the bed by 90° or sit person upright.
2. Monitor BP every 5 minutes.
3. Check for sources of AD: drain bladder first, consider using topical anesthetic jelly for lubrication of catheter.
4. Check rectum for stool. Apply anesthetic jelly to rectal wall before manipulation. Use digital stimulation to promote reflex defecation.
5. Check for other sources of AD such as ulcer, fracture, in-grown toenail, etc.
6. If SBP is above 150 mmHg after above checks, give captopril 25 mg sublingually x1. Advise patient to avoid swallowing until tablet dissolved.
7. If SBP still greater than 150 mmHG at 30 minutes post-captopril then give immediate release nifedipine 5 mg capsule via the bite and swallow method.
8. ******ONLY IN A HOSPITAL SETTING******
9. Repeat nifedipine 5 mg bite and swallow 15 minutes after the initial nifedipine dose if SBP still greater than 150 mmHg.
10. Consider intravenous agents for hypertension if hypertension is refractory.