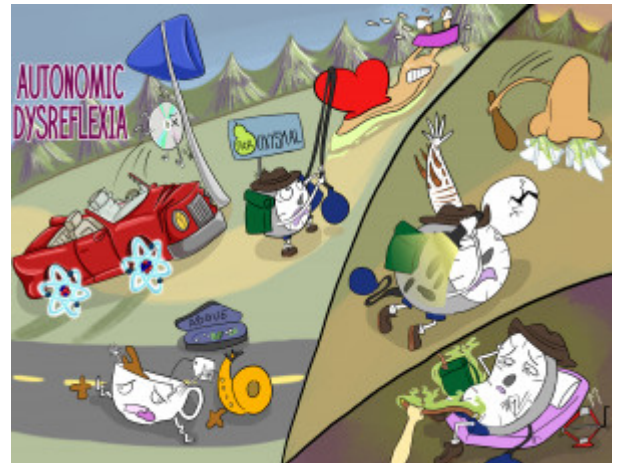


## Autonomic Dysreflexia

Autonomic dysreflexia is a life-threatening condition caused by a noxious stimuli in individuals with spinal cord injury above the level T6. The patient may present with paroxysmal hypertension, bradycardia, diaphoresis, and headache. Other assessment data includes flushing above the level of injury, nasal congestion, and piloerection. Interventions include elevating the head of the bed and removing the noxious stimuli to alleviate symptoms. Immediate resolution is critical to preventing complications, such as status epilepticus, stroke, myocardial infarction, and death.



PLAY PICMONIC

### Injury Above T6

#### Crashing above Injured Tea with (6) Sax

After the resolution of spinal shock, the return of normal reflexes may be hyperactive and exaggerated. Injury above T6 causes a reflex stimulation of the sympathetic nervous system and results in major uncompensated cardiovascular reactions. The sensory receptors below the level of injury are stimulated with reflex arteriolar vasoconstriction that increases blood pressure. However, due to spinal cord injury, the parasympathetic nervous system is unable to counteract the sympathetic nervous system's response.

### Assessment

#### Paroxysmal Hypertension

##### Pear-oxysmal sign Hiker-BP

Autonomic dysreflexia may cause episodic high blood pressure, known as paroxysmal hypertension. After the resolution of spinal cord injury, the arteriolar reflex is activated and causes vasoconstriction that increases blood pressure. The patient's systolic blood pressure may read as high as 300 mm Hg. Monitor the patient's blood pressure frequently during the episode.

#### Bradycardia

##### Snail-heart

After spinal cord injury, increased blood pressure stimulates the parasympathetic nervous system and results in decreased heart rate. Autonomic dysreflexia may cause bradycardia and decrease the heart rate to 30-40 beats/minute.

#### Diaphoresis

##### Sweaty-sweatband

Since there is an increase in warm blood circulating in the area, the patient with autonomic dysreflexia may experience diaphoresis above the level of injury.

#### Flushing Above Lesion

##### Flushing-flashlight Above Leeches

The patient with autonomic dysreflexia may experience flushing of the skin above the level of injury due to the increased amount of blood in the area.

#### Piloerection

##### Pile-of-hair-erect

Autonomic dysreflexia may cause pilomotor spasms that cause goosebumps. In addition, the patient may experience an erection of body hair known as piloerection.

#### Nasal Congestion

##### Stuffed Nose

Since autonomic dysreflexia increases the amount of fluid circulating above the level of injury, the patient may experience nasal congestion.

## Headache

### Head-egg lump

The patient with autonomic dysreflexia may experience a throbbing headache. This symptom is caused by an increase of blood shunted to above the level of the injury. If a patient with spinal cord injury complains of a headache, measuring the blood pressure is critical in helping to determine the presence of autonomic dysreflexia.

## Interventions

### Elevate Head of Bed

#### Elevating Head of Bed

Immediately elevate the patient's head off the bed or place them in an upright sitting position to help decrease the elevated blood pressure. Determine the noxious stimuli causing the autonomic dysreflexia and alert the medical team.

### Remove Noxious Stimuli

#### Removing Noxious-fume Apparel

Removing the noxious stimuli will help resolve autonomic dysreflexia. Common causes include a distended bladder or impacted rectum. Immediate catheterization may be necessary to relieve bladder distention. If the patient already has an inserted Foley catheter, assess for kinks, folds, or plugs in the tubing. Stool impaction may require applying anesthetic lubricating ointment to decrease rectal stimulation before performing a digital rectal examination. Other causes include stimulation of sensory receptors, skin, or pain receptors. If the cause is skin stimulation, loosening the patient's constrictive clothing and tight shoes will also help relieve symptoms. If symptoms remain after removing the noxious stimuli, an alpha-adrenergic blocker or arteriolar vasodilator may be administered to help stabilize vital signs.