

## What other information is available on AD?

- ▶ The PVA self-help guide and wallet-sized AD information card: "Autonomic Dysreflexia: What you should know"

Online source: [www.pva.org](http://www.pva.org)

*If you have previously experienced AD you should carry this card with you at all times.*

- ▶ SCIRE (The Spinal Cord Injury Rehabilitation Evidence)

Online source: [www.scireproject.com](http://www.scireproject.com)

- ▶ Krassioukov *et al.*, (2009) *A.P.M.R.*. "A systematic review of the management of autonomic dysreflexia after spinal cord injury".

### Cardiovascular Health Education Clinic for Paralympic Athletes

Athlete's Village, Vancouver BC  
Dr. Andrei Krassioukov, Attending Physician

### GF Strong Rehabilitation Centre

Spinal Cord Injury Program  
4255 Laurel Street  
Vancouver, BC V5Z 2G9  
CANADA

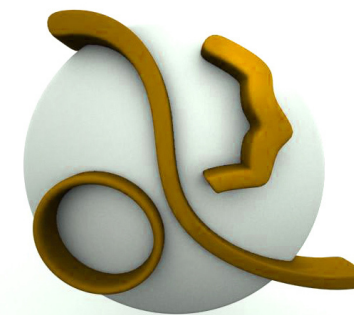
### International Collaboration on Repair Discoveries (ICORD)

Blusson Spinal Cord Centre  
818 West 10th Avenue  
Vancouver, BC V5Z 1M9  
CANADA

Paralympic Winter Games, March 2010

Authors: Andrei Krassioukov, MD, PhD, FRCPC  
and Dr. Patricia Mills, MD  
Cover Graphic: Todd Gack

## Boosting and You: Understanding the Risks



**Have you ever tried to self-induce autonomic dysreflexia to make yourself feel better or improve sport performance?**

*You, your family, friends, and/or personal caregivers should read this pamphlet*

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THE CRAIG H. NEILSEN FOUNDATION



## What is Boosting?

- ▶ Boosting occurs when an athlete with a spinal cord injury (SCI) at or above the sixth thoracic segment (T6) intentionally causes Autonomic Dysreflexia during training or competition.

## What is Autonomic Dysreflexia (AD)?

- ▶ It is a dangerous **rise in your blood pressure** that is triggered by a **painful or non-painful stimulation** below the level of your spinal cord injury (SCI).
- ▶ Below your SCI, your body cannot detect these stimulations and has difficulty properly responding to them.
- ▶ As a result, your blood pressure can go up quite fast and can lead to serious consequences such as stroke or even death.

## What are the symptoms of Boosting?

If you Boost, you may feel:

- A pounding headache
- Blurry vision or seeing spots
- Nasal congestion
- Nausea
- Sweating (usually above your SCI)
- Anxiety
- Difficulty breathing

## What are the signs of Boosting?

If you Boost, you may experience:

- A rapid, increase in blood pressure (**20-40 mmHg** or even more above your normal blood pressure level)
- Slow heart rate (HR)
- Upper body flushing (reddening of skin)
- Goosebumps (usually above your SCI)

## Why do some athletes Boost?

- ▶ Individuals with SCI above T6 have loss of control over regulation of their HR and BP.
- ▶ These individuals are unable to adequately increase their BP and HR in response to exercise, which can negatively affect their performance.
- ▶ Boosting increases BP and therefore may increase exercise performance in SCI athletes.
- ▶ Athletes who Boost may be doing so to compensate for their lower BP as a result of their SCI.

## Why is Boosting not allowed in training or competition?

- ▶ Boosting is discouraged by the International Paralympic Society due to concerns for athlete safety.
- ▶ This is because the **uncontrolled, extreme** increases in blood pressure associated with AD have been known to cause:
  - Bleeding inside the brain causing a stroke
  - Seizures
  - Abnormal heart rhythms
  - Death