



photo credit: Suspendem

What do you need to know?

If the patient has been suspended in a harness be aware of:

- Symptoms of pre-syncope or loss of consciousness.
- Loss of consciousness that can occur from restricted blood flow, shock from the fall or an additional injury sustained.
- Large amounts of blood can pool in the legs due to the harnesses restriction on veins and lack of leg muscle movement.
- Post-rescue body position is important to restore blood flow.
- Potential risk from the sudden return of blood and toxins to the organs after rescue.
- 10 minutes in a harness with no other injuries can still be fatal.



The Canadian Wind Energy Association, is the voice of Canada's wind energy industry, actively promoting the responsible and sustainable growth of wind energy.

The Occupational Health and Safety Committee works collaboratively to provide solutions to health and safety concerns specific to the wind industry in Canada.

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Sources

Canadian Safety Group Blog –
Suspension Trauma 101, 2017

SAS Safety Systems –
What is Suspension Trauma, 2017

“Evidence-based review of the current guidance on first aid measures for suspension trauma” Health and Safety Laboratory, Birmingham, UK, 2009



Suspension Trauma Awareness for First Responders

CanWEA Occupational Health and Safety Committee

Suspension Trauma

Working at heights is a part of wind farm operations. While it is extremely rare for a worker to fall from the top or inside the tower it is essential to be prepared.

How it happens

Injuries are sustained from being immobilized in a vertical position when the legs are relaxed and unable to move.

Workers accessing a wind turbine wear fall-protection equipment, including harnesses and shock absorbing lanyards. A worker may be suspended from the front or back of their harness depending on their position in or on the turbine.

Injuries can include:

Hypoxia; syncope; hypoxemia; acidosis; ventricular fibrillation; myocardial infarction; damage to the liver, kidneys and brain; and possibly death.

A fallen worker may exhibit no external injuries but still be at risk of these potentially fatal issues.



photo credit: Suspendem

The importance of being aware

First responders in areas where wind farms are typically located may not encounter suspension trauma regularly. Being aware of symptoms and injuries may one day be a matter of life or death.

Fatality can occur both during and after a rescue.

The role of wind farm staff

Wind turbine technicians are trained in high angle rescue and some first aid. They are typically the most qualified personnel on site to rescue and extract an injured worker.

Emergency response plans are in place and rehearsed on site. Communication with EMS and intermediate care is provided until first responders arrive.

Expectations of first responders

Wind farm staff depend on first responders to provide advanced care and transport the patient after they are removed from the wind turbine or substation. After rescue, it is expected that first responders will conduct an individual assessment of the patient and adjust body positioning accordingly.



photo credit: MRS Training and Rescue

Working with wind farm operators

Wind farm operators want to work closely with first responders to plan and train for the worst situations. Be sure to contact any facilities in your region to enable good communication and the best outcome from a potential incident.

Key facts

- Dizziness can occur in as few as three minutes.
- Loss of consciousness can occur in as few as five minutes.
- Fatality can occur in 10 minutes.
- Reported cases of a fall from a wind turbine are very rare. Due to the severity of the injuries, diligence in preparing for the worst is important.