



Learning by Accident: A Bloody Mess!

««« Submitted by a STAO member at a safety workshop

Learning by Accident is an ongoing *Crucible* feature, in which real-life lab accidents or incidents are recounted and explained. The goal is to highlight the consequence of ignoring safety rules so that science educators will be further encouraged to become knowledgeable, and to take appropriate action, in areas of safety that affect their daily activities in the science classroom. Submissions are encouraged. Anonymity will be guaranteed. Please send written descriptions to Ian Mackellar, STAO Safety Committee Past-Chair, Box 191, MAITLAND, ON K0E 1P0.

A student was instructed on how to prick his finger to obtain a blood sample for blood testing. He fainted and struck his head on a radiator as he fell to the floor. He required stitches to close the gash in his head.

Comments from the STAO Safety Committee

For all of their bravado, teens, especially males, can be very squeamish when it comes to “medical” procedures such as drawing of blood, instillation of drugs in the eye and injections. Clinicians often have to deal with teen and young adult males who pass out during such procedures.

If such an activity takes place in the science classroom or laboratory, the subject should be seated in an area clear of furniture or fittings that could cause injury. The teacher should closely monitor the student’s physical reaction as the blood sample is taken. Should the subject collapse, it is important to ease him or her to the floor so that no further injury occurs, and he or she should be placed in the first aid recovery position¹ to allow increased blood supply to the brain. The subject should recover from the fainting spell in a few minutes at most.

The STAO Safety Committee would like to emphasize, however, that the drawing of bodily fluids for experiments in school science classes is NOT encouraged because of the risk of disease transmission (e.g. HIV), contamination of the classroom in case of spillage, and the problem of safe proper disposal of the fluids at the end of the activity. Most Boards of Education do not allow the use of human bodily fluids in the classroom for this reason. When in doubt, ask your Board safety officer about the Board’s policy.

Canadian Blood Services offers a 75-minute programme *What’s your type?* on blood typing, which is designed to support the curriculum for Grade 11 Advanced Biology. For more information on this programme, visit the CBS website at www.bloodservices.ca.

Blood type testing activities can be carried out with synthetic blood available from most science suppliers at modest cost. This material avoids the problems of using human blood in the science class. Similarly, synthetic urine is also available for use in urinalysis activities.



1 Recovery Position for Child/Adult (anyone over the age of 1 year old for the purpose of these instructions): An unconscious casualty who is breathing but has no other life-threatening conditions should be placed in the Recovery Position:
* Turn casualty onto their side. * Lift chin forward in open airway position and adjust hand under the cheek as necessary. * Check casualty can not roll forwards or backwards. * Monitor breathing and pulse continuously. * If injuries allow, turn the casualty to the other side after 30 minutes. NOTE: if you suspect spinal injury, use the jaw thrust technique. Place your hands on either side of their face. With your fingertips gently lift the jaw to open the airway. Take care not to tilt the casualty’s neck. Information from St. John Ambulance website: <http://www.sja.org.uk/firstaid/info/recoveryPosition.asp>