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**PUBLIC LECTURE**

**When:**

**Monday**

**September 21st  
2009**

**6 P.M.**

**Where:**

McGill University  
Otto Maass Chemistry  
Building  
Room 10

**Sigma Xi  
Entin Public Lecture**

**Don't Tase Me, Bro!**

**Is the Stun Gun Really A Flawless Device?**

The injuries produced by firearms have been well known for centuries, but the physiological effects and possible lethality of stun guns are still hotly debated. Stun guns are conducted energy weapons that deliver a series of short pulses of electrical current through darts projected over the subject. The resulting effect is uncontrollable muscle contraction and incapacitation of the targeted subject. The use of these new weapons by law enforcement agencies has increased dramatically during the last decade as has the number of deaths occurring proximate to exposure, thus raising concerns about the safety of these weapons. The evaluation of the lethality of these weapons has been difficult due to the relatively small number of related deaths, the multiplicity of confounding factors such as drug abuse and police restraints that are associated with arrest-related deaths, and the lack of publicly available data relevant to these deaths. Recently, measurements of the electrical characteristics of 41 stun guns performed for the Canadian Broadcasting Corporation showed that 10% of these devices generated abnormally high electrical current. These results prompted law enforcement agencies in Quebec, British Columbia and Alberta to test more than 500 similar devices (Taser model X26): their results revealed that 10% to 12% of the stun guns were outside the range of the manufacturer's specifications (high output charge and/or slow pulse rate). Moreover, for an older model used by the RCMP in British Columbia (Taser model M26), 80% of the devices failed to operate within the manufacturers specifications. The talk will address the stun gun operating modes, its physiological effects, the context of use, the electrical tests performed recently in Canada, the electrical safety standards, an epidemiological analysis of the fatalities and some recent recommendations of Canadian commissions and law enforcement agencies.

**Preceded by a members-only reception  
5:30 P.M.**

**Ruttan Room**



english

français