HOG-TIED REVISITED

[A statement written by Dr. Donald T. Reay and sent to Ms. Charly D. Miller in June of 1998.]

In the November issue of the Annals of Emergency Medicine, Chan et al published a paper entitled, "Restraint Position and Positional Asphyxia," (*Ann Emerg Med* Nov 97; 30; 578-586), where they studied arterial blood gases, oxygen saturation, pulse and pulmonary function test in a group of normal healthy volunteers who were exercised and hog-tied and then compared the same parameters after exercise in a seated position.

They found no significant differences between the two groups except in respiratory function studies, where hog tying resulted in a restrictive pulmonary function pattern of some 14%, which they viewed as clinically insignificant.

This study showed that our study in 1988 (*Am J Forensic Med Pathol* 1988;9:16-18), which measured only cutaneous (skin) oxygen saturation, was incorrect and flawed and our interpretation that hog tying produces physiological consequences of recovery times as measured by pulse and oxygen saturation was contradicted by their work.

I readily acknowledged the value of these studies in the San Diego case of "Price vs. San Diego" which had many other features besides hog-tying in the restraint maneuvers used to control the victim. This has since been presented in law enforcement publications as my retraction of positional asphyxia as a cause of death, with particular reference to hog-tying.

Such is not the case! I still maintain that there are risks and hazards to restraint maneuvers including hog-tying and each case must be evaluated to assess the presence or absence of respiratory restriction in the light of the method of restraint.

A 280-pound man with a large abdominal panniculus is at risk in the face down position as well as a person with obstructive pulmonary disease. And there are many shades in between.

The point is that street deaths are much different than controlled investigations. If 14% respiratory restriction by hog-tying is not viewed as clinically significant in normal people, it has to be evaluated in the context of the event where it may be significant. It may be that physical restraint produces metabolic breakdown of muscle, which floods the body with potassium to cause cardiac standstill or that stimulants such as cocaine producing excited delirium, mediate a lethal reflex during restraint.

Not enough is yet known to say whether a method of restraint is free of any potentially lethal effects.

"HOG TIED REVISITED" SIGNATURE	11 14-05
Donald T. Reay	Date of Signing
IN WITNESS WHEREOF, I have hereunto set my hand and seal in the City of Oak Markin the State of What on the Holy of Morent 2005, 1115 E.A. P. 1111	
SIGNED, SEALED AND DELIVERED in	n the presence of
[Signature] lense a	Lett Sunotary 20.
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A NOTARY PUBLIC IN AND FOR The St	ate of WASH NGTON WASHININ

I, **Donald T. Reay**, hereby acknowledge that the eight (8) paragraphs printed on the preceding page were written by me, and sent to Ms. Charly D. Miller, in June of 1998.