

APPENDIX D

PHYSIOLOGICAL EFFECTS OF PEPPER SPRAY

D-1. General. A one-second burst to the face will affect three major areas upon contact: (1) the eyes; (2) the respiratory system; and (3) the skin. All effects are temporary, and will usually completely disappear within 30-45 minutes.

a. Effect on Eyes. A direct spray in the face will cause dilation of the capillaries and instant closing of the eyes and swelling of the eyelids. Effects range from severe twitching or spasmodic contraction of the eyelids to involuntary closing of the eyes. The eyes appear to be red for up to 30 minutes. People with eyeglasses or contact lenses will be equally affected.

b. Effect on Respiratory System. A direct spray produces immediate respiratory inflammation, which causes uncontrollable coughing, retching, shortness of breath, and gasping for air with a gagging sensation in the throat. Inflammation of mucous membranes produces difficulty in breathing through the nose. Inflammation of the epiglottis causes shallow breathing through the mouth. As aggression increases, breathing becomes rapid and increases the effects of pepper spray. Respiratory functions return to normal within 10 to 30 minutes.

c. Effect on Skin. A direct burst of Pepper Spray on the face will cause an immediate burning sensation of the skin and mucous membranes inside the nose and mouth. Occasionally, the subject's lips will be swollen and discolored. Depending on the complexion of the individual, skin color will range from slight discoloration to a bright redness. Skin discoloration will disappear within 10 to 45 minutes, depending on the immediacy of decontamination as well as access to soap and cool water. The skin may also turn yellow from the spray, but can easily be washed off.

d. Pepper Spray has no long-lasting side effects or aftereffect. It can be used to control any high stress situation while producing rapid physiological action, desired effects in low concentration, and permits rapid recovery without lasting effects

e. Although this product is proven to be extremely effective, the reliability cannot be guaranteed 100%.