Revisions to 1993 report. Euthanasia is the act of inducing humane death in an animal. It is our responsibility as human beings to ensure that, if a life must be taken, it must be done with the highest degree of respect. Technique should be rapid and with little distress. Pain can be experienced both physically and mentally. Sensory-discriminative pain indicates the site of origin and stimulus causing pain. Motivational affective pain is measured by the animal’s response. Pain is experienced only when the cerebral cortex is functional (not if nonfunctional due to drugs/hypoxia/concussion/etc). Stress is the effect of mental/physical/physiologic/emotional factors (stressors) that induce an alteration of the animal’s homeostasis or adaptive state. **Eustress** = harmless stimuli result in benefit to animal. **Neutral stress** = not harmful or beneficial. **Distress** = response to stimuli interferes with animal’s well-being or comfort. Know the animal you are euthanizing so that you can tell if it is experiencing undue stress. Evaluation of euthanasia methods: a) ability to kill without pain, b) time to loss of consciousness, c) reliability, d) safety of personnel, e) irreversibility, f) compatibility with purpose, g) emotional effect on personnel, h) compatibility with subsequent evaluations (tissue use, etc), i) drug availability, j) compatibility with animal, k) ability to maintain equipment, l) safety for predators (carcass to be eaten). Always be aware of the effect euthanasia has on the humans performing it!