THE HUMAN BRAIN:
REQUIREMENTS & DEATH BY ANOXIA
SOME INTERESTING FACTS

The *human brain* is only about 2% of the body's weight (3lb/150lb).

However, it uses about 20-25% % of the *blood supply,* and thus *oxygen* as well as *caloric intake* of food.

This is far more than the 8-10% for nonhuman primates, and still more than the 3-5% for other mammals. Thus the human brain was a very expensive organ in terms of matter and energy, and hence there must have been major adaptive pressures for its evolution.

Due to of the brain's critical importance, it is given *special treatment* in that it is the last organ to suffer when an organism is *starving.*

Importantly, however, although the *heart* can recover after nearly 20 minutes without a beat, *brain cells* are more delicate.

When blood stops flowing, the *cells exhaust their oxygen reserves* in a mere 10 seconds, at which point the *individual loses consciousness.*

After the *last reserves of glucose* disappear 5 minutes later, *cells poison themselves* with a toxic cascade of chemical reactions.

Hence, when *sudden cardiac death* occurs at normal body temperature, *brain damage* will be permanent after 5 minutes.

However, this toxic cascade can be slowed by *mild hypothermia*--lowering the body temperature by just 7.2 degrees Fahrenheit.

[Source of most information, i.e., sudden cardiac death: *Discover,* October 2001, p. 30]