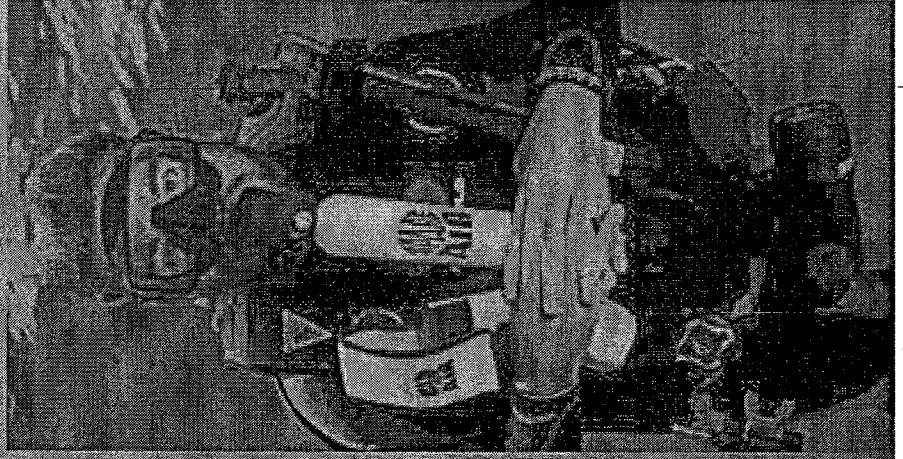


Physical Danger of Compressed Gas

Safety

- Compressed gas cylinders are designed with a burst pressure 5 times maximum working pressure (4 times in Europe)
- No known explosions with spare air cylinders
- Explosions extremely rare with diving cylinders, cracks in aluminium, heating to bake paint, gross overfilling
- The likelihood of a compressed gas cylinder exploding is

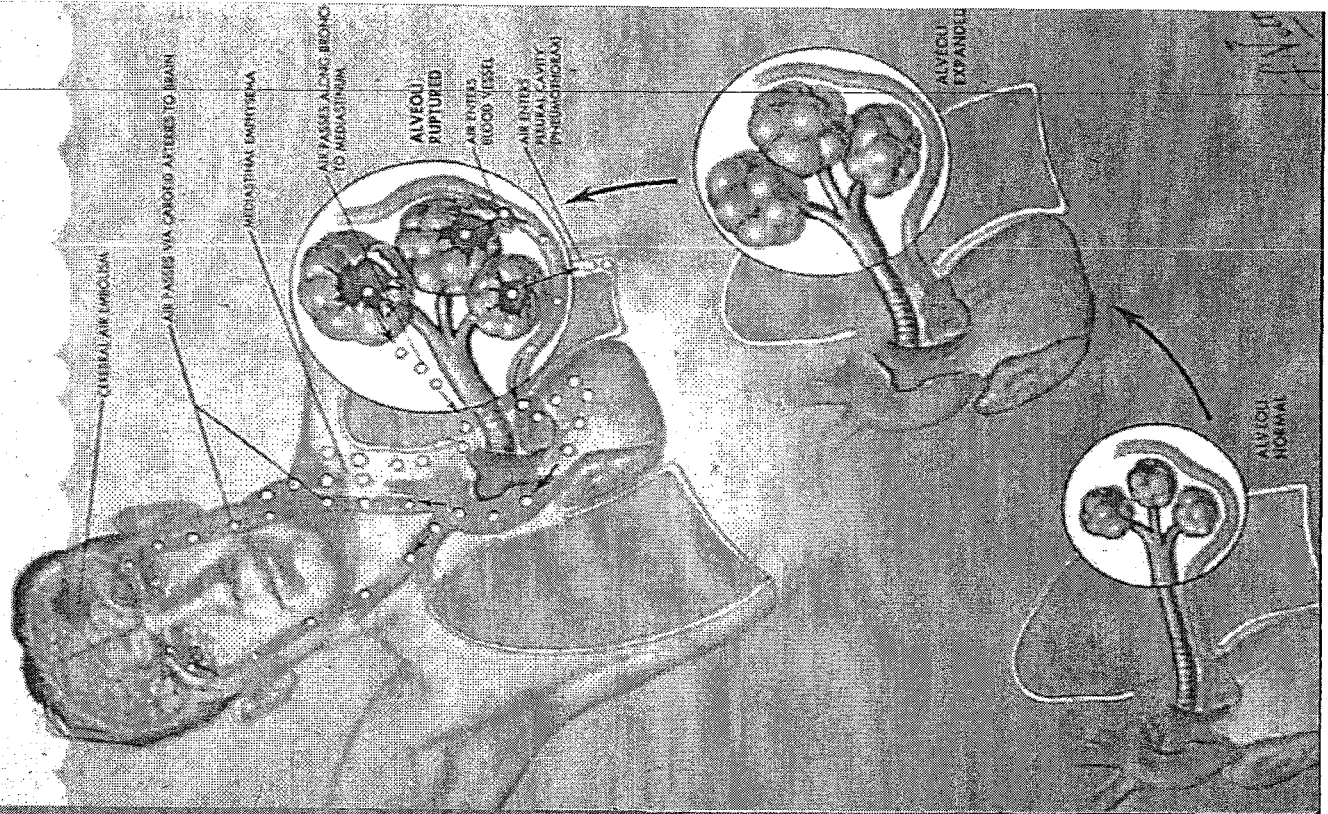
extremely small



Physiological Danger of Breathing Underwater

Boyle's Law

- At a constant temperature, the volume of a gas will vary inversely with the absolute pressure
- Potential lung rupture from 3 feet water depth
- Documented fatal lung rupture from less than 6 feet water depth



Physiological Danger of Breathing Underwater

- The dangerous gas is the gas in the lungs, not the gas in the cylinder!
- Identical danger of lung rupture from a rebreather or open circuit scuba



Psychological Response to Emergencies

- Only 15-20% of people 'think'
- 40-60% of people 'follow training'
- 20-40% of people 'panic', and 'die'

