

DANGERS OF COMPRESSED AIR

Compressed air is a concentrated stream of air at high pressure and high speed that can cause serious injury to the operator and the people around him. First, compressed air is itself is a serious hazard. It has been known for compressed air to enter the blood stream through a break in the skin or through a body opening. An air bubble in the blood stream is known medically as an embolism, a dangerous medical condition in which a blood vessel is blocked, in this case, by an air bubble.

An embolism of an artery can cause coma, paralysis or death depending upon its size, duration and location. While air embolisms are usually associated with incorrect scuba-diving procedures, they are possible with compressed air due to high pressures. This may all seem to be improbable, but the consequences of even a small quantity of air or other gas in the blood can quickly be fatal so it needs to be taken seriously.

Unfortunately, horseplay has been a cause of some serious workplace accidents caused by individuals not aware of the hazards of compressed air, or proper work procedures.

- Compressed air accidentally blown into the mouth can rupture the lungs, stomach or intestines
- Compressed air can enter the navel, even through a layer of clothing, and inflate and rupture the intestines
- Compressed air can enter the bloodstream, and death is possible if it makes its way to blood vessels in the brain
- Direct contact with compressed air can lead to serious medical conditions and even death
- Even safety nozzles which regulate compressed air pressure below 30 psi should not be used to clean the human body
- As little as 12 pounds of compressed air pressure can blow an eye out of its socket. If an air pocket reaches the heart, it causes symptoms similar to a heart attack. Upon reaching the brain, pockets of air may lead to a stroke.



To prevent accidental injury when working with compressed air, here are several precautions to follow:

- Before operating an air hose, examine all connections to make sure they are tight and will not come loose under pressure. A loose air hose can make a dangerous bullwhip.
- Never point a compressed air hose nozzle at any part of your body.
- Keep air hoses out of aisle ways where they can be damaged by traffic or be a tripping hazard.
- Check the air hoses regularly for damage or leakage. Remove a leaking hose immediately. A hose that breaks under pressure will come loose and wave around completely uncontrolled.

