



MISSISSIPPI STATE UNIVERSITY™
MS AGRICULTURAL AND FORESTRY
EXPERIMENT STATION

MAFES DAWG TRACKS

Compressed air is just regular air from the atmosphere pressurized. For this reason, its potential hazards can be easily overlooked. The safety issues come into play because of the pressures created and how it is used or abused.

Cleaning off your work clothes or horse playing with an air hose can quickly become life altering. Are you thinking, "How does that happen"? The pressure and speed of compressed air can cause it to enter the blood stream through a break in the skin or through a body opening causing an air bubble in the blood stream, known medically as an embolism. A dangerous medical condition in which a blood vessel is blocked, in this case by an air bubble, which can be fatal if it reaches the heart lungs, or brain.

- Inflation injuries of the intestine can be caused by air being directed at private body areas.
- Air blown into the mouth at only 5 PSI can rupture the esophagus or the lungs.
- 40 PSI can blow out an ear drum from 4 inches away and possibly cause brain damage.
- As little as 12 PSI can blow an eye out of its socket!

Most pneumatic tools require 80-120 psi of air pressure to operate effectively and to do useful work. However, OSHA regulations state: "Compressed air shall not be used for cleaning purposes except where reduced to less than 30 psi and then only with effective chip guarding and personal protective equipment."

This means air blowers should have a relief device or air ports in the side or within the system that will drop the pressure to under 30 psi if the nozzle becomes dead ended.

So, if the air pressure is reduced to less than 30 psi, can employees clean their clothing and/or themselves with the air gun?

- ✓ No. Under no circumstances should employees use compressed air to clean off clothing or any part of their body. As mentioned earlier, pressures as low as 5-10 psi have been known to cause serious injury.

Additional precautions with compressed air use:

- Use hoses and lines rated to meet the maximum operating pressure of the air system.
- Replace worn/damaged air lines and fitting before they become a problem. *(A guy actually lost his front tooth from a whipping airline after the quick connector came apart slapping him in the mouth.)*
- Always wear proper personal protective equipment. Eye and ear injuries can occur from a blast of air or flying particles.
 - Hearing protection in needed situations; the sound from a compressed air hose can reach 120-130 dB.
 - Safety glasses with side shields and a face shield if needed.

NEVER POINT COMPRESSED AIR AT YOURSELF OR ANOTHER PERSON!

For more info contact:
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Sources:

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- <https://www.aircontrolindustries.com/dangers-of-compressed-air/>
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