



Causes of Excessive Carbon Monoxide (CO)

1. **Very Rich Air/Fuel Ratios**
 - Too much fuel
2. **Excessive fuel pressure at the injectors**
 - Fuel pressure regulator stuck
 - Restricted fuel return lines
3. **Leaking fuel injectors**
4. **Loaded / Malfunctioning EVAP system**
5. **Crankcase fuel contamination**
6. **Incorrect input signal to PCM**
 - Coolant temperature
 - Throttle position
 - O₂ content
 - Load
 - Intake air temperature
 - Etc...
7. **Ruptured fuel pressure regulator diaphragm**
8. **Closed loop control system incorrectly shifted rich**

Note: Due to the reduction capability of the catalytic converter, increases in CO emissions tend to reduce NO_x emissions. It is not uncommon to repair a CO emissions failure and as a result of another sub-system deficiency, have a NO_x increase sufficiently to fail a loaded-mode transient test.