

Fresno Bee Earth Blog, Friday, Nov. 23, 2012:

As PM2.5 increases, so does risk of heart attacks

By Mark Grossi

Over Thanksgiving, a friend asked how the San Joaquin Valley's air quality might affect someone with a heart problem. It's a good question now when the most dangerous air issues arrive.

There is evidence that heart attack risk rises as particle pollution, known as PM-2.5, increases.

What's PM-2.5? Think soot from wood burning in fireplaces, though it also comes from diesel exhaust, chemicals in the air and microscopic moisture droplets.

By chance, an air-quality activist last week sent me a link to an article in progress on the Journal the American College of Cardiology. It included a section on PM-2.5, saying the odds of a fatal heart attack for nonsmokers rise 22% for each 10 microgram increase in PM-2.5.

The health standard is 35 micrograms per cubic meter of air. On Jan. 1 this year, one Fresno monitor was 70 micrograms higher than that federal standard.

You don't need to do the math to see that even people without heart or lung problems were suffering through an air crisis at the time.

The article advises anyone with cardiac problems to avoid exposure during episodes of PM-2.5. Last winter, that would have meant avoiding the outdoors for weeks in December and January. Obviously, the Valley has many violations of the federal PM-2.5 standard. The biggest hot spots seem to be Fresno and Bakersfield, but there are PM-2.5 violations in many places.

What about this year?

A quick look at the California Air Resources Board site tells us that PM-2.5 hasn't been a problem yet. If we have a lot of stormy weather this year, we might not have a long run of bad days as we did last year.

But dry, stable weather — as we seem to be having now — can make things miserable. So keep your eye on the weather report, and check with the San Joaquin Valley Air Pollution Control District web page before you light a wood fire at home.