

Doctor warns of 'dangerous' air

By Glenn Moore

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Wildfires burning across California continue to cast a veil of smoke across Tracy and the rest of the San Joaquin Valley, prompting health concerns with the possibility that the smoke could linger for another month.

The San Joaquin Valley Air Pollution Control District extended a health caution for valley residents Monday as the smoke degraded the valley's air quality. Anthony Presto, a spokesman for the district, said the warning would remain in effect until the wildfires are put out.

"The wildfires create fine microscopic particles made of smoke, dust, soot and ash. Those fine particles are most detrimental to your health," Presto said.

The air pollution district specifically measures fine particles called PM 2.5 — those that are 2.5 micrometers or smaller. That's 30 times smaller than the thickness of a human hair and roughly a quarter of the size of pollen and dust particles.

"This is wildfire season and things are very fluid how they impact the valley," Presto said. "Things change on a daily basis."

People can keep track of the air hour by hour — from Level 1, good, to Level 5, very unhealthy — with the district's Real-Time Air Advisory Network, which lists recommendations for outdoor activity.

Wildfires that may be contributing to the smoke over the San Joaquin Valley are the vast Mendocino Complex fires in Mendocino, Lake and Colusa counties; the Ferguson Fire burning near Yosemite in Mariposa County; the Carr Fire in Shasta County; the Donnell Fire in the Stanislaus National Forest; the Lions Fire in the Sierra National Forest; and the Holy Fire in Southern California, according to the air pollution district.

Dr. Shyam Subramanian, a Sutter Gould Medical Foundation pulmonologist and director of pulmonary critical care at Sutter Tracy Community Hospital, noted that he had seen "a tremendous increase" in people seeking help for respiratory problems, especially among those who have conditions such as asthma, emphysema and chronic obstructive pulmonary disease.

"People with pre-existing lung conditions are really having a hard time with their asthma and with their breathing," Subramanian said. "So we are seeing many more patients coming into the office and some of them severe enough to even require hospitalization at Sutter Tracy Hospital."

Subramanian said that San Joaquin County and neighboring Stanislaus County have some of the worst air quality anywhere in the country to begin with and have a very high rate of asthma, COPD and respiratory conditions. The wildfire smoke has compounded the problem significantly over a short period of time.

"It is very dangerous for those people with pre-existing lung conditions," Subramanian said. "Even though we are not in harm's way as far as an immediate risk of the fire, the change of air quality is enough to cause significant exacerbation. We are seeing this all day long. At least 20 to 30 percent of the extra patients who are coming in are one way or another related to the change in the air quality."

When an asthma patient with inflamed air passageways inhales smoky air, the small particles in the smoke further irritate the lining of the lungs. Subramanian said that the lungs try to protect themselves by restricting or closing off the air passageways, which causes the person to feel short of breath and tight in the chest, have coughing spells, and feel unable to breathe.

In severe cases, people can end up in the emergency room with very low oxygen levels and need be admitted to the hospital for treatment.

Some people don't realize how sick they are.

"It's a lot more serious than a lot of patients realize. And unfortunately in some of them, it may end up being in a situation where they don't realize how badly off their asthma is until it really hits them hard and then they sort of have to call the ambulance and get them to the emergency room in an urgent type of

situation,” Subramanian said. “Just in the last week, I had at least two patients show up in the office saying they were more short of breath, feeling a lot worse and saying, ‘Can you just check me out?’ And we look at their oxygen levels and they are down to 80 percent and we have to divert them to the hospital and get them admitted.”

The young and the old are also vulnerable to the effects of the wildfire smoke.

“Children especially because they have very vulnerable lungs — they are sort of growing, developing lungs — and they end up inhaling a lot of the small particles in the poor-quality air because of the smoke,” Subramanian said. “Even if they didn’t have known asthma or known lung problems before, they can develop an asthmatic bronchitis, kind of an acute bronchitis, where they have coughing and wheezing and trouble and difficulty breathing.”

People who know they have lung conditions should try to limit their exposure to the smoke by staying inside air-conditioned buildings.

“The most important thing is to obviously not go out, try to stay indoors as much as possible. Really be very cognizant of the need to be outdoors,” Subramanian said. “Even when they are indoors, they don’t turn on anything that has fire that could potentially increase the smoke index,” such as candles.

When people vulnerable to smoke exposure do venture outdoors, Subramanian urged caution.

“If they have to go out, a simple mask unfortunately is not going to be of any protection. A lot of them feel they can just cover their nose with a scarf or piece of cloth. Those are all not going to be effective,” Subramanian said. “They are going to need a particular filter than can prevent particulate matter from entering their breathing system. Those are typically the N95 masks.”

The masks are sold by many hardware stores and drugstores and can also be bought online.

“This would be applicable particularly to people whose occupation involves being outdoors and there is no way around it,” Subramanian said.

Staying hydrated is also important when the air is smoky, especially for kids.

The doctor also advised asthma patients and others with respiratory conditions to take symptoms such as coughing, chest tightness or shortness of breath more seriously and be ready to seek medical attention.

“Most of them should have an action plan if they do get into trouble. They may need to use their rescue medications more frequently and make sure they are well stocked with refills,” Subramanian said. “These symptoms can worsen very, very quickly, particularly overnight. The nighttime is when a lot of these asthma symptoms tend to get exacerbated, and so they shouldn’t wait until the very end or until they are really, really severe before they seek medical attention.”

With the number and size of the fires burning across the state, Subramanian doesn’t see any relief coming soon.

“At least in the short term, based on the fact the fires are still there, I don’t really see any immediate turnaround where it will be safe in the next week or potentially the next month. It takes a while for this to really clear up,” he said.

For more information on the wildfire smoke, visit the San Joaquin Air Pollution Control District website at www.valleyair.org.