WHY CLOSE AN INDOOR GYM?
"A Report on Exercising Indoors During 'Unhealthy' Air Quality"
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The problem is that the filters on most building ventilation systems were not designed or rated to capture smoke particulates of this small size (2.5 microns or less). To do that they would have to be HEPA (High Efficiency Particulate Air) filters which are designed to remove 99.97 percent of airborne particles measuring 0.3 micrometers or greater in diameter. But such filter systems are expensive to install and maintain (think hospital clean room) and would be overkill on most days given the good air quality we usually experience in San Francisco. Add to that people opening doors and windows and all the cracks and crevices through which air routinely leaks in and out and it becomes impossible to control on the scale of a building.

So the crux of the question is what is the indoor air quality when the air quality outside is rated "unhealthy?"

It is possible to have an industrial hygienist company come and take indoor air samples and have them analyzed by a lab. However, these tests are expensive (a couple hundred dollars per sample depending on the scope of the analysis) and with the air quality changing all the time you would have to be running samples all the time.

You might be able to achieve a measure of control in a designated room using portable air purifying machines. These devices employ a fan system to pull air through a HEPA filter thus removing particulates. Each has a rating so you have to match the capacity of the room air purifier with the volume of the space to ensure enough air exchanges per hour to be effective. Depending on the size of the room, this might require setting up several of these units. However, if you can't control the buildings main ventilation to this space then this might be an effort in futility.

So, we are all basically left operating on the assumption that the air quality indoors is somewhat better than that outdoors but we don't know how much better. And even knowing that it is better, does not mean that people exercising indoors are protected from exposure to the harmful and cumulative effects of inhaling these small particles. The general recommendation is to limit exertion and stay indoors because this reduces the amount of the particulates one will breathe into the lungs per unit time. Now, if someone gets on a treadmill and brings their respiration and heartbeat up, they are going to be inhaling more air per unit time than at a resting rate. So it stands to reason they are going to be pulling into their lungs more of these particulates per unit time and, given the heavier breathing associated with exercise, these particulates may go deeper into the lungs. At some point during the exercise regimen, the amount of particulates entering the lungs will be equivalent to, or greater than, a person standing outside.
breathing the more unhealthy air. Which is what going indoors was supposed to prevent. If you accept the premise of this argument, then the conclusion is that people should not be exercising indoors when the outdoor air quality is rated "unhealthy" unless the building’s air can be adequately filtered.

WHY CLOSE AN INDOOR POOL?
An indoor pool requires an HVAC system that continuously pulls in fresh outside air and pushes out the chlorinated air. If we close the intake in the pool area, this does not allow us to push the chlorinated air out, making it unhealthy for staff and patrons to be in the pool area. The health of our staff and patrons is our number one concern.

RELIABLE RESOURCES
The references listed below provide guidance on how to deal with the current air quality situation in the Bay Area.

VISIT American Lung Association
CHECK Air Quality
WEAR N95 Mask: While staying indoors and reducing physical activity are the best ways to protect your lungs from wildfire smoke, wearing a particulate respirator that says “N95” will provide protection. Do not use bandanas, surgical masks, or tissues. LEARN how to use a mask (California Department of Public Health) SUBSCRIBE to your local emergency notification system for immediate alerts and information (City & County of San Francisco) UPDATE your emergency preparedness checklist UNDERSTAND the USF disaster preparedness system