

February 2006

The Nose Job

Besides holding up your sunglasses, your nose's job is to let you breathe while protecting your health. It is better to breathe through your nose than it is through your mouth because the nose acts as a filter and self-defense mechanism. The mucous membrane lining the nose moistens and warms the air before it gets to your lungs. The hairs in your nose can trap large particles, like dirt or pollen. The mucous in the nose traps dust, germs, and many small particles that could irritate your lungs. Particles that are trapped in the mucous can be sneezed out. Particles that travel further into your nose or sinus cavity may be removed by tiny hairs called cilia.

Unfortunately, some particles can be so tiny that they pass right through the body's self-defense mechanism and can travel to the deepest parts of the lungs, or even pass through the lungs into the bloodstream. Particles ten microns in size or less are considered particulate pollution, or airborne dust. You can fit thousands of these particles in the period at the end of this sentence. Particulate pollution is made up of microscopic solid particles or liquid droplets floating in the air. Particles come from many sources and are made up of many different compounds including acids, organic chemicals, metals, soil or dust particles, and fragments of pollen or mold spores. Particulate pollution may cause minor or serious health affects including:

- Increased hospital admissions and emergency room visits;
- Irritation of the eyes, nose, and throat;
- Coughing;
- Chest tightness;
- Shortness of breath;
- Reduced lung function;
- Acute and chronic bronchitis;
- Asthma attacks;
- Respiratory infections;
- Heart attacks and irregular heart beat; and
- Premature death.

Since the nose cannot completely protect us from particulate pollution, the best recourse is to reduce particulate levels and exposure to them. To reduce exposure, you could limit outdoor exertion and time spent outdoors on days with high particulate levels, avoid exercising near busy roads, and plan outdoor activities on days when particle levels are expected to be lower. Among many actions to reduce particulate levels, you can limit fireplace and campfire use, use propane instead of charcoal barbecue grills, drive slowly on dirt roads, use a clean-fueled vehicle, avoid riding off-road vehicles in residential neighborhoods, avoid parking on dirt lots, keep off unpaved road shoulders, and pave or gravel your driveway.

Our actions make a difference. Keep dust down and protect your health.

Questions or Concerns? Click or call: <www.deq.pima.gov/air/pcneap/Dust_info.htm>, e-mail <karen.wilhelmsen@deq.pima.gov>, or 740-3340.

Got Dust? Keep it Down!