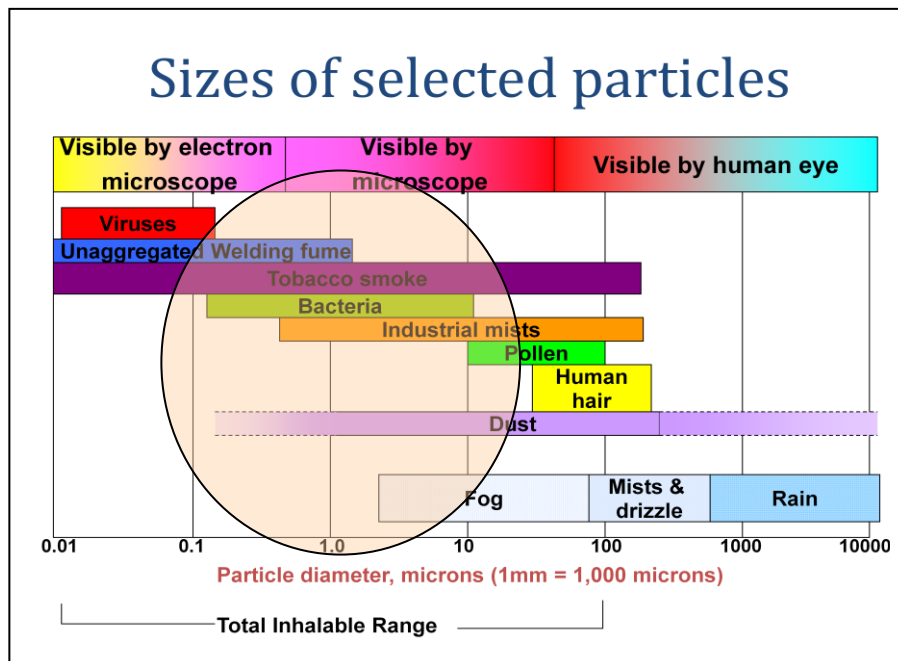


Aware of dust

There are two aspects to fine dust that determine risk, first the size of the particles and second, the concentration of them in the air.

Sawdust is generally in the area of less than 1 micron to 600 microns.
A micron is one millionth of a meter in diameter – to put it into perspective,
Particles smaller than 40 microns cannot be seen with the naked eye.



The diagram may take a few minutes to get a handle on, with the shaded area, the range of dust particles not visible to the naked eye, yet the most dangerous to our lungs.

Our lungs deal fairly well with foreign bodies that are more than 7 microns in size. When a ray of light reveals floating dust in the workshop, we're only seeing particles that are five to six times larger than the ones that are harmful.

For the Wood turner, the two most common problems are-

Nuisance dusts – small particles that at high concentrations clog up the airways of the lungs and create discomfort and breathing difficulty.

Toxic dusts – particles that are toxic to the body after being inhaled into the lungs – asbestos, silica, *be careful with MDF material and the emery wheel.*

After all is said and done, **common sense tells us to take precautions** against any dangerous practice, including inhaling wood dust.

Dust Masks: a Word of caution *One of the great misconceptions of dust control is that inexpensive white fabric or paper nuisance masks offer some protection while turning. It's worth noting that reputable companies such as 3M place a warning label on their version of these, and it literally reads: "This mask will not protect your*

lungs. " (Less scrupulous manufacturers print the label in small print on the package rather than the mask, or not at all.) Nuisance masks not only allow almost all of the dangerous small particles through, they also impart a false sense of security. People using them for wood dust filtration feel as though they are doing something to protect themselves (which, of course, is completely false), so they don't bother taking any other real steps such as installing an air scrubber, hooking up to a dust collector, or investing in a powered respirator.

Beyond the cheap, disposable versions, there are some nuisance masks such as the Dust Bee Gone that, although not NIOSH or OSHA approved, still filter down to 3 microns. The mask accommodates to most faces, even those with beards, has two straps to help close gaps around the edges, won't fog up glasses, and is actually made in America. For more information, visit dustbeegone.com/dustmask.html.

After all is said and done, woodturners who take precautions against inhaling wood dust will be able to enjoy their time at the lathe without fearing respiratory health hazards. The consequences of exposure are just too risky to take casually.

(Extracted from American Woodturner Magazine April 2010 Vol 25 Number 2)

The Norton company manufacture an excellent dust mask, model number 7700-30M. 3M also market a range of dust masks, suitable for Woodturners, the most suitable being the model 9312. These masks can be purchased from the companies that advertise in our newsletter.

