

We will continue talking about “**occupational health**” ...

Tuberculosis:

Case counts: 13,299 TB cases were reported to CDC from the 50 states and the District of Columbia

-**CDC:** Centre of Disease Control, one of the most famous and the best centres of protection, prevention and disease control studies in the world.

(You don't need to remember the numbers in the slides, they are only an indicator of the presence of the disease and for you to know how much it is found).

Chemical hazards:

Different types of work places might have something common and different from other places. Anxiety might be found in any working place, but acids are not necessary found. It depends on the type of work.

-Acids, Bases, Heavy metals, Solvents, Particulates (small particles that you can smell or breath), Fumes (noxious gases/vapors), Highly-reactive chemicals, Fire, conflagration and explosion hazards.

-In our working place in the future (clinics, hospitals and health centers), which types of these chemicals can we find?

Acids, bases, heavy metals (mercury), fumes (noxious gases in surgical procedures or in case of fires or other problems in hospitals), solvents... etc

-So, sometimes the total environment of the working place can expose you to different dangers. For example, 2 years ago there was a fire in the university's hospital in (-3 floor) where there is a drug storage, it affected workers in the whole hospitals because of vapors and noxious gases.

-Acids cause tissue damage & burns → dry black burns.

-Bases also cause tissue damage & burns → wet, saponifying burn (soap appearance “alkaline + fats from the body”)

Slide #20: Incidence of occupational diseases in a recent 10-year period in China

In China, they can't be proud about their occupational health status. It becomes a huge industrial country, but the health services found for workers are very minimal. The chart shows you the # of cases of poisoning in working environment and the problems of working environment (poisoning, occupational skin diseases, noise deafness and pneumoconiosis). If we look at “working deafness”, it increases with time because of the heavy industry without protective means.

-**Pneumoconiosis:** (تغبّر الرئة) particulate impact on the lung of the person due to exposure to particles of small-particular mass. They can cause damage depending of the nature of these particular masses.

In china, the most common cause of pneumoconiosis is “**Silica dust**” and it causes a disease called “**silicosis**”. In recent years, new cases were estimated at 12,000–15,000 annually, representing 70–80% of the total number of cases of reported occupational diseases. That gives you an impression about what happens if we neglect the subject of occupational health and don’t pay care about it.

China has lots of work in mines and heavy construction and that’s why they suffer from heavy dust in their work places.

-In pneumoconiosis patients, they end with severely damaged lungs. It appears when they use stairs. They end with lung fibrosis, so they can’t even raise their hands to shave their faces.

-We use length units (mm for ex.) to talk about the **particle size** (not mm^3), why? They use **diameter** as an indicator for the size of the small particles, because we multiply the diameter by constants to convert it to the volume or size. And they discover that what makes these particles behave in the atmosphere is their diameter.

----- *The end of part 1 (12min), done by: Hiba Hammad* -----