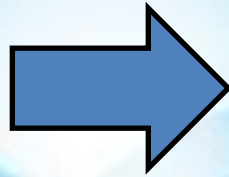


WHAT'S NEW???

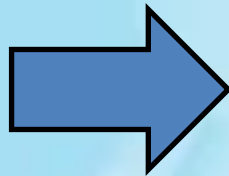
Department of Environment (DOE) has improved the calculation of Air Pollutant Index (API) by using PM_{2.5} starting early mid year 2018

1995 -2017



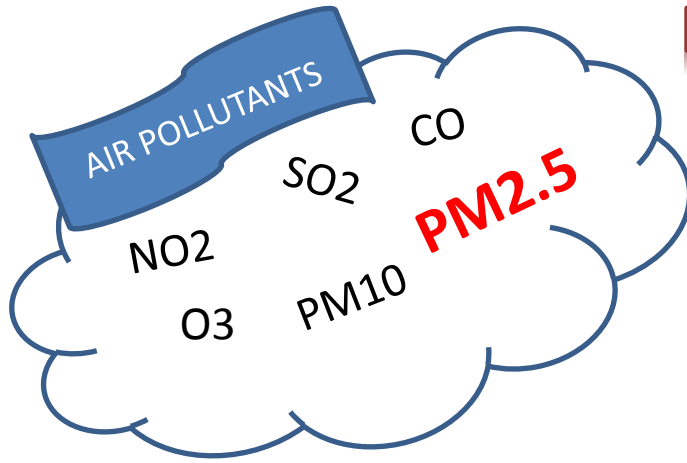
- All particles with aerodynamic diameter < 10 micro-meter.
- Most commonly measured size fraction .

16 August 2018



- All particles with aerodynamic diameter < 2.5 micro-meter.
- Size fraction link to the various health impacts.

PM2.5 AND THE HEALTH IMPACTS



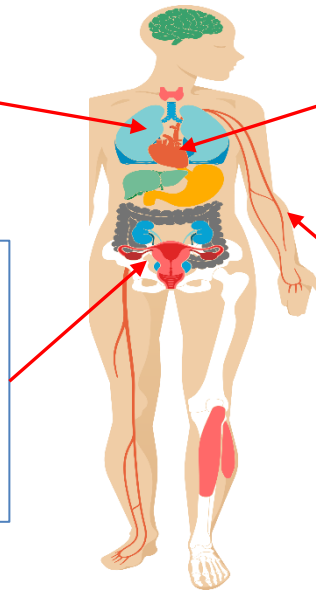
Particles less than 2.5 micrometers in diameter are called 'fine' particles. These particles approximately 1/30 the average width of a human hair, can lodge deeply into the lungs. Sources of fine particles include all types of combustion, including power plants, motor vehicles and residential wood burning.

Respiratory system:

The soluble part of PM2.5 directly enters the bloodstream and the insoluble part accumulates at the alveolus of the lungs, causing inflammation

Reproductive system:

PM2.5 are attached to various types of pollutants such as heavy metals and PAHs, causing placental blood toxicity that leads to direct harm to fetus, intrauterine growth retardation and low weight of babies especially when PM2.5 exposure happens in the first month of pregnancy



Cardiovascular system:

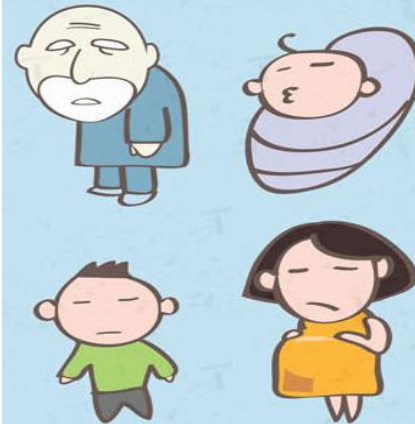
PM2.5 causes cardiotoxicity and also causes severe irritation to the autonomic nervous system, which regulates the activity of the heart muscle.

Blood system:

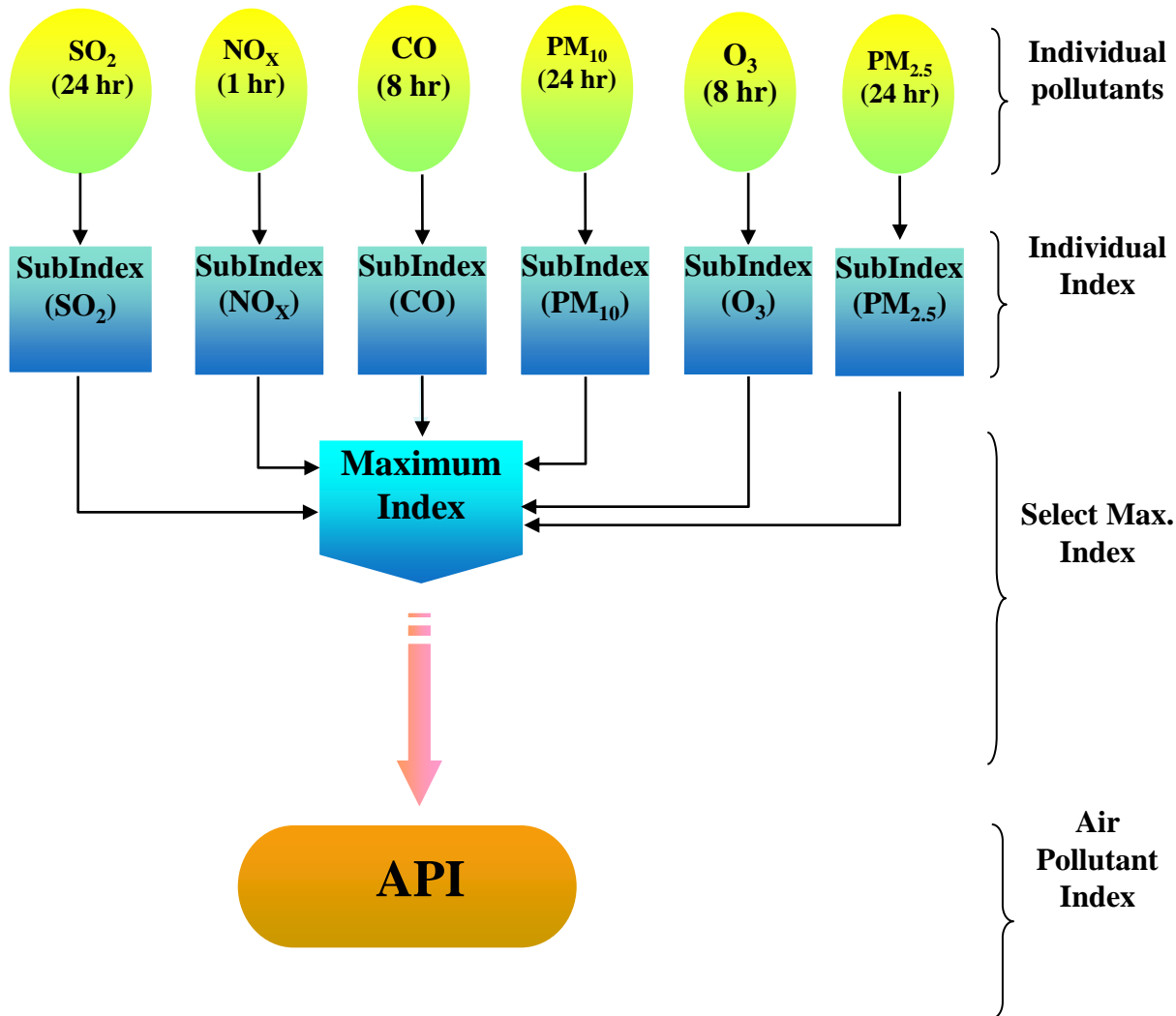
PM2.5 causes blood toxicity, blood coagulation abnormalities and can trigger heart disease

Groups sensitive to PM2.5

People with heart or respiratory diseases, the elderly, pregnant women and children.



CALCULATION FOR NEW API STARTING 16 AUGUST 2018



API

API SCALE	AIR QUALITY STATUS
0 – 50	GOOD
51 – 100	MODERATE
101 – 200	UNHEALTHY
201 – 299	VERY UNHEALTHY
300 – 500	HAZARDOUS
> 500	EMERGENCY