



Diesel Particulate Matter and Cardiovascular Risk

By: Sandra Dorman, PhD



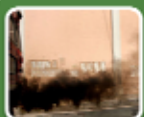
Sections



Scientific Evidence



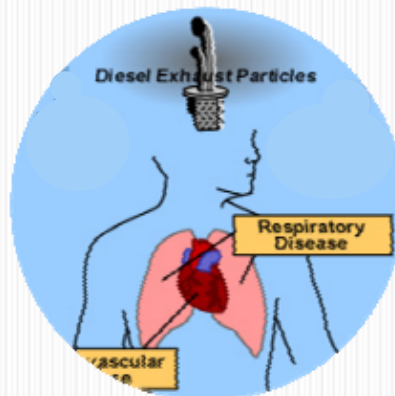
Cardiovascular Disease



Mechanisms of DPM Damage

Scientific Evidence

Section 1



Epidemiologic Data



**1% daily
mortality/
10 μ g/m³PM₁₀**

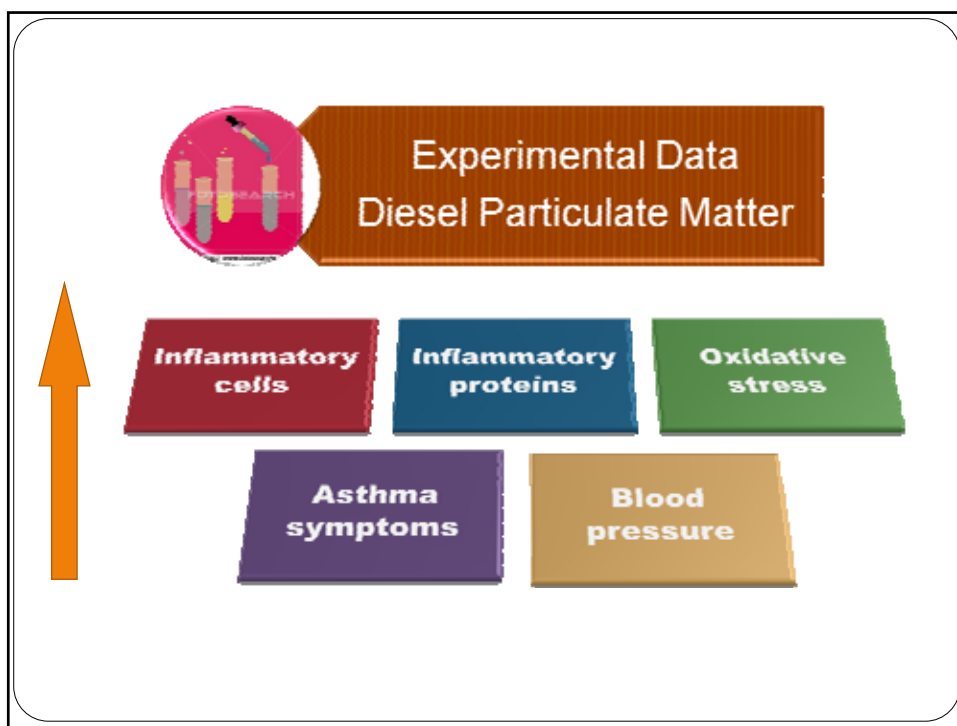
**Cardio-
vascular
deaths**

**Respiratory
related
deaths**

**Hospital
admissions**

**Cardio-
vascular &
Airway
emergencies**

**Risk to
susceptible
populations**

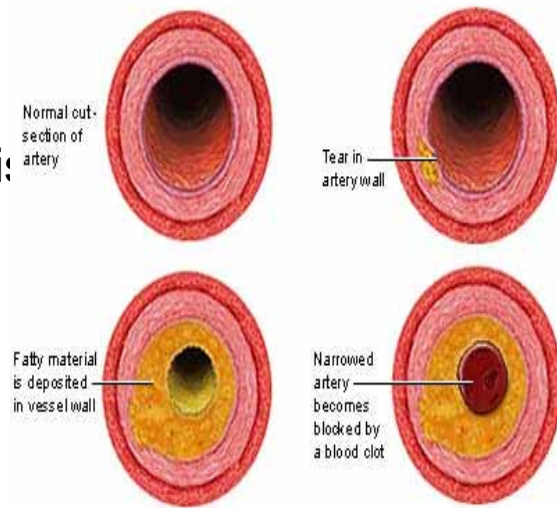


Cardiovascular Disease

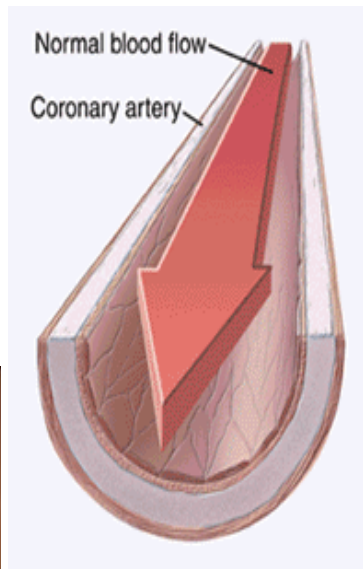
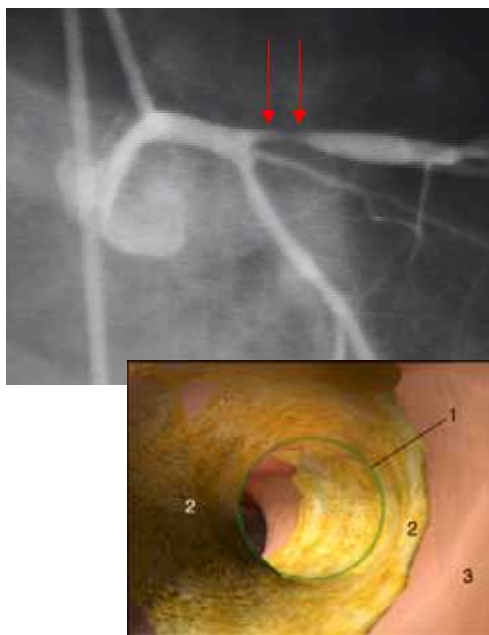
Section 2



- Atherosclerosis
- Angina
- Heart Attack
- Stroke



ADAM.



Mechanisms of DPM damage

Section 3



Lung Injury



Translocation

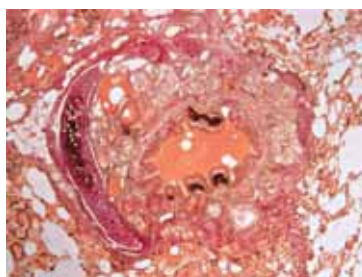
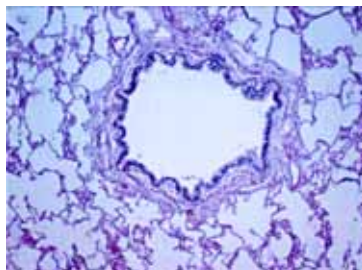
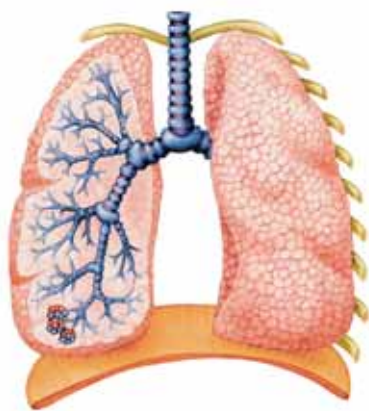


Cardiovascular Impact

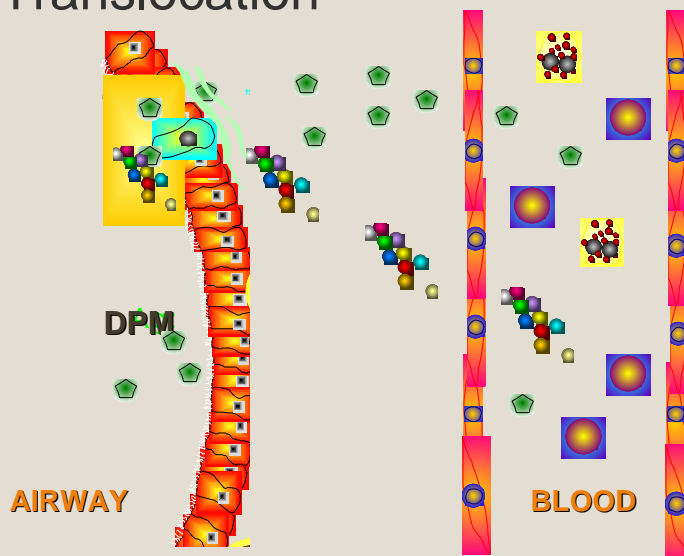


Pre-existing Disease

Lung Injury



Translocation



Cardiovascular Impact

Two Effects:

- Diesel Particulates directly damage vessel wall
- Induced inflammation increases stickiness of the vessel wall



Pre-existing conditions



People who Smoke



People with Diabetes



People with High Blood Pressure



People who are overweight

Every Worker, Home Safe, Every Day...

Plus a long retirement.



Thank you for listening...

- Please contact me if you have any other questions:
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