

Work-Related Heart Disease... Part One

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February 24th, 2021





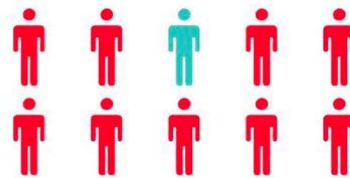
Cardiovascular Disease

CV Disease by the numbers

In 2019, **cancer** and **heart disease** (46.7%) were the two leading causes of death in all provinces and territories, except Nunavut, where **cancer** was the leading cause of death, followed by suicide and then by **heart disease**. Nov. 26, 2020

70,000

is the estimated number of heart attacks each year in Canada



Fewer than **1/10** Canadian adults and **1/5** youth were in ideal cardiovascular health from 2003-2011

Every 7min 

someone dies from heart disease or stroke in Canada



More than


1.4 million

Canadians have heart disease claiming more than

33,600 lives per year

90% 

of Canadians have at least one risk factor for heart disease or stroke


Smoking, alcohol, physical inactivity, obesity, high blood pressure, high blood cholesterol, diabetes 

Up to **40,000** 

cardiac arrests occur each year in Canada

That's one cardiac arrest every

12 min

Heart disease and stroke costs the Canadian economy more than 

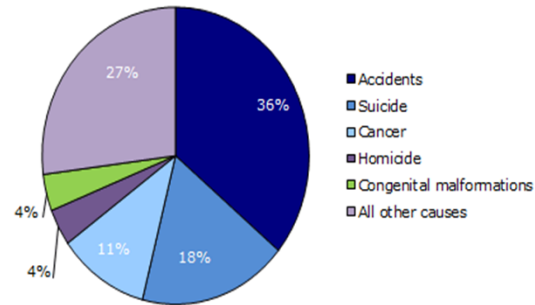
\$20.9 billion

every year in physician services, hospital costs, lost wages and decreased productivity

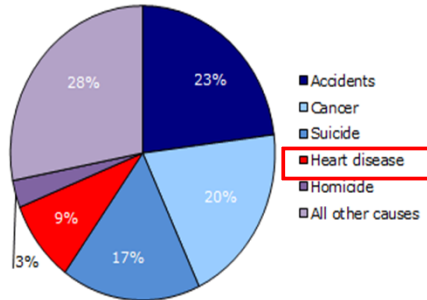
CV Disease by the numbers

Chart 1 Percentage distribution for the 5 leading causes of death in Canada, 2013

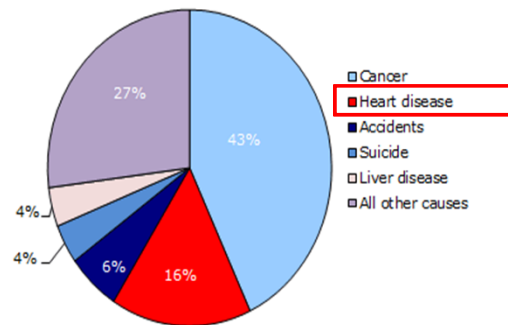
Age group: 1 to 24 years
Number of deaths = 2,622



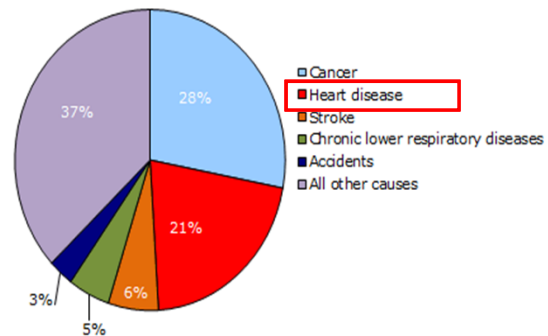
Age group: 25 to 44 years
Number of deaths = 7,409



Age group: 45 to 64 years
Number of deaths = 40,996



Age group: 65 years and over
Number of deaths = 199,427

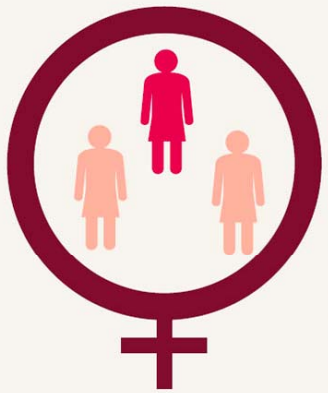


Source: Vital Statistics - Death Database, CANSIM Table 102-0561.

Women have Cardiovascular Disease Too

WOMEN'S HEART DISEASE FACTS

Heart disease is the No. 1 killer of women.



Heart disease causes
1 in 3
women's
deaths each
year.



Yet, only **1 in 5**
women believe
heart disease is
her greatest
health threat.



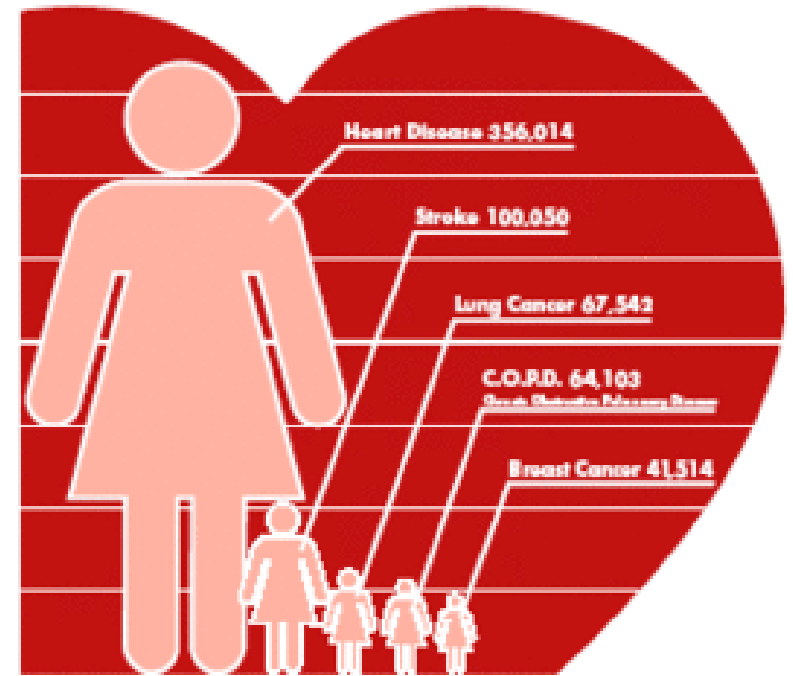
9 in 10 women have one or more risk
factors for developing heart disease.

Froedtert & MEDICAL COLLEGE of WISCONSIN

Take your health to heart:
froedtert.com/heart-vascular
1-800-DOCTORS

Source: goreforwomen.org

Leading Causes of Death for Women



Source: The Healthy Heart Handbook for Women, National Heart, Lung, and Blood Institute (2005)
Based on 2002 data

Major CV diseases

Blood Vessels

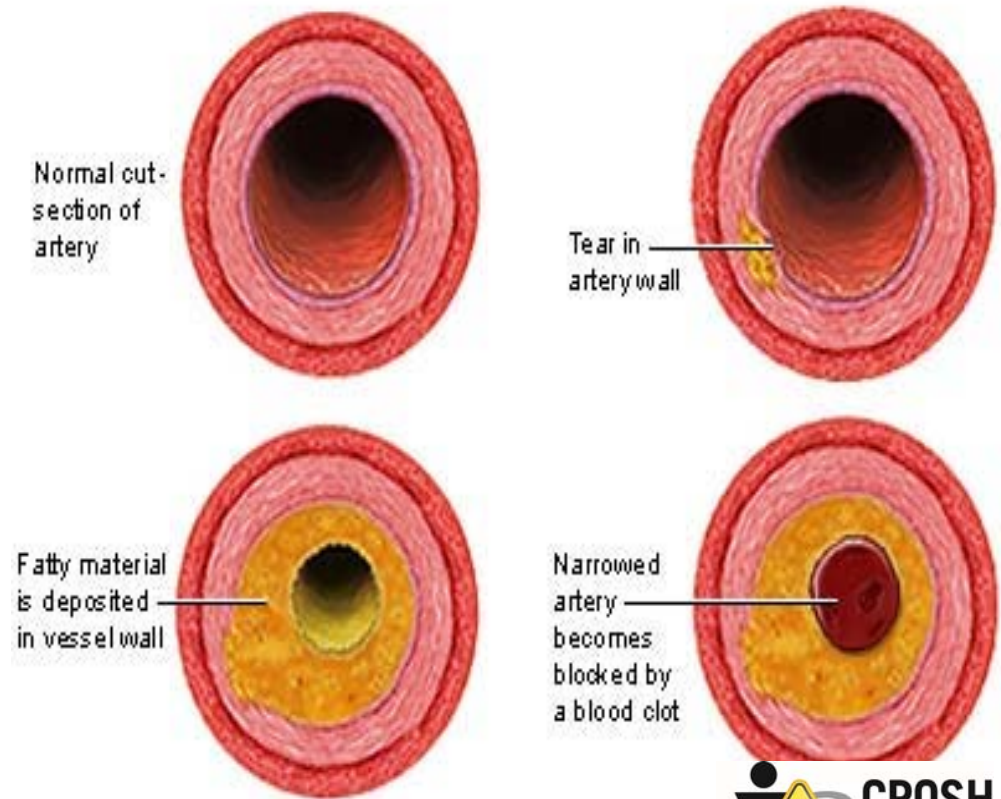
- **Atherosclerosis**
- **High blood pressure**

Coronary (heart) Artery Disease

- **Angina**
- **Myocardial Infarction (Heart Attack)**

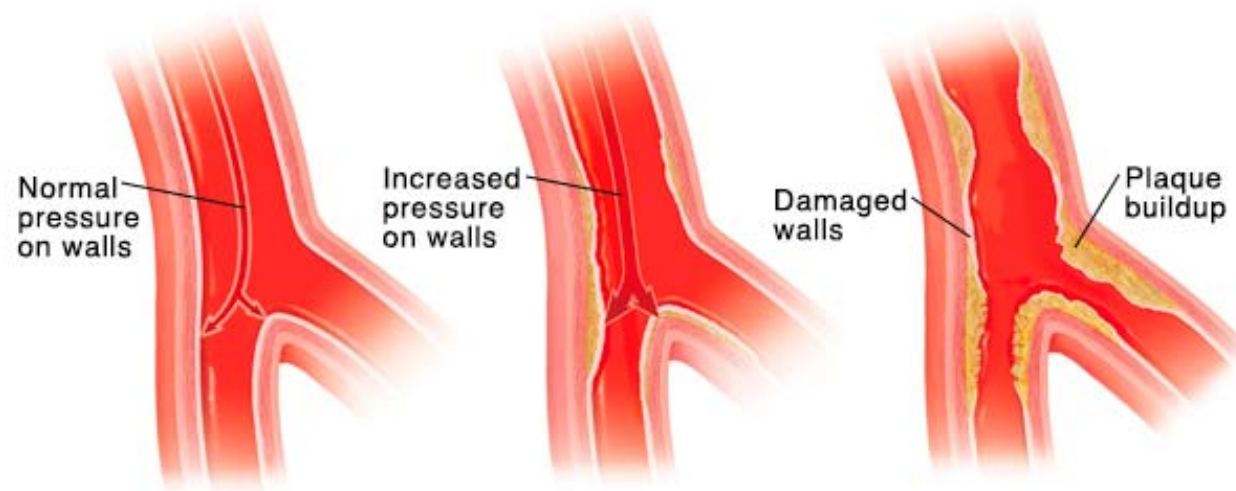
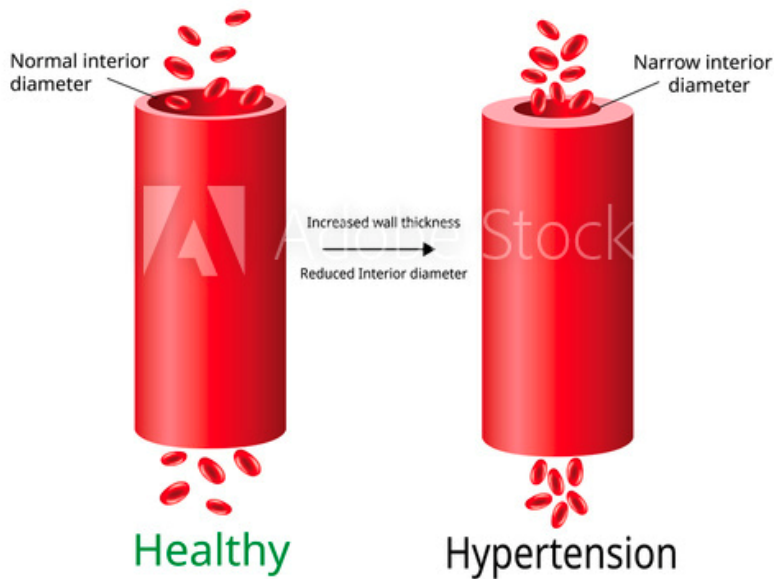
Brain

- **Stroke**

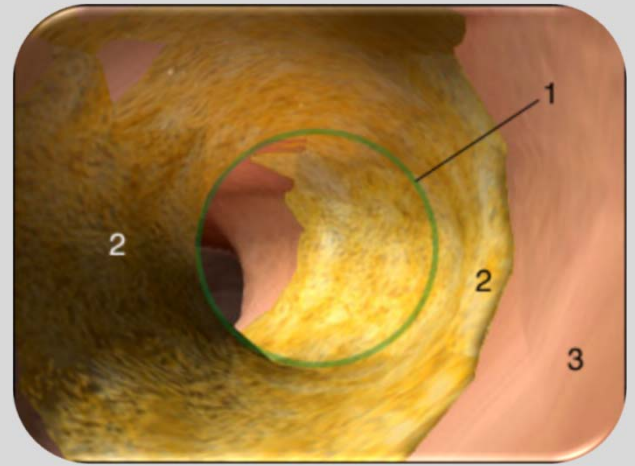
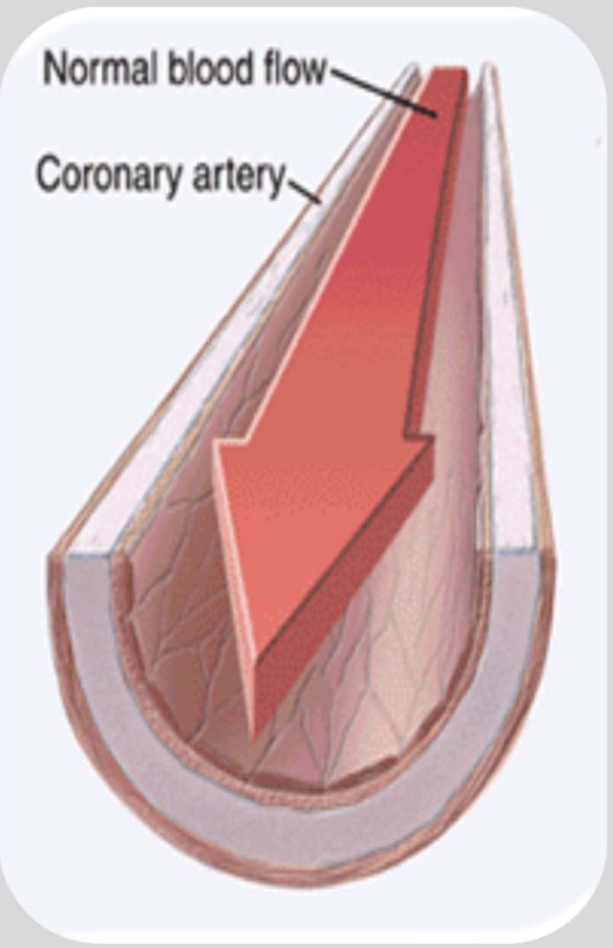
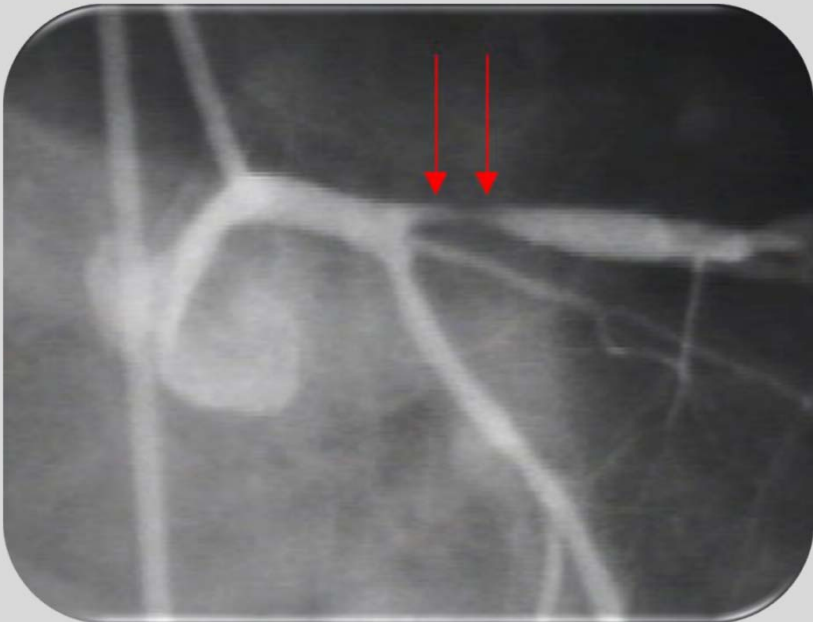


Hypertension & Plaque Build Up

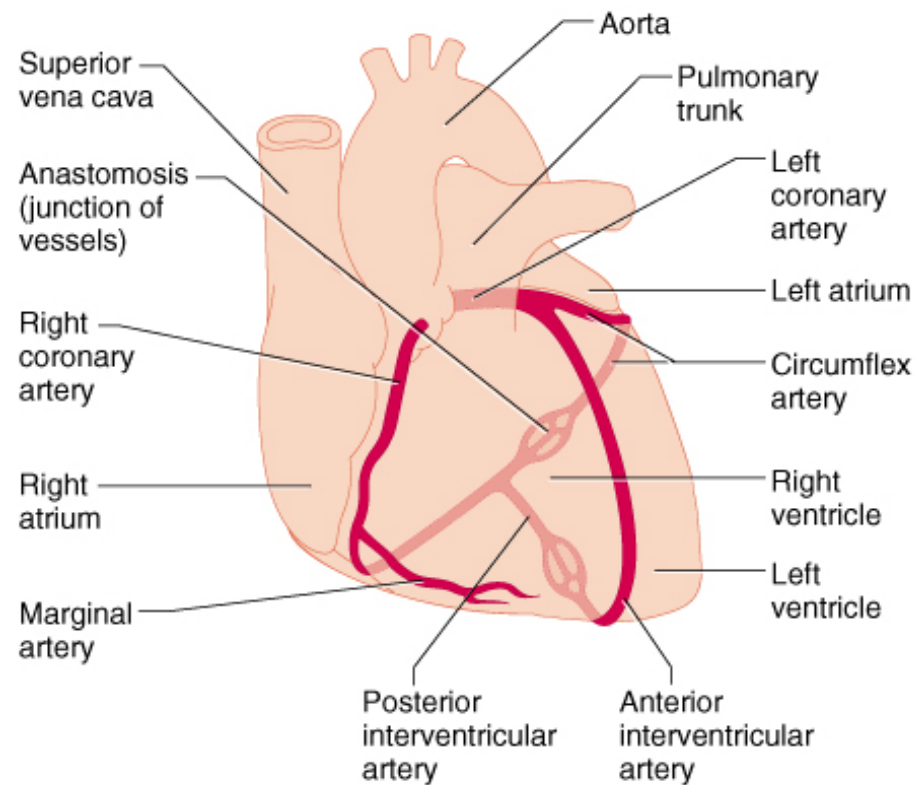
High blood pressure (hypertension)



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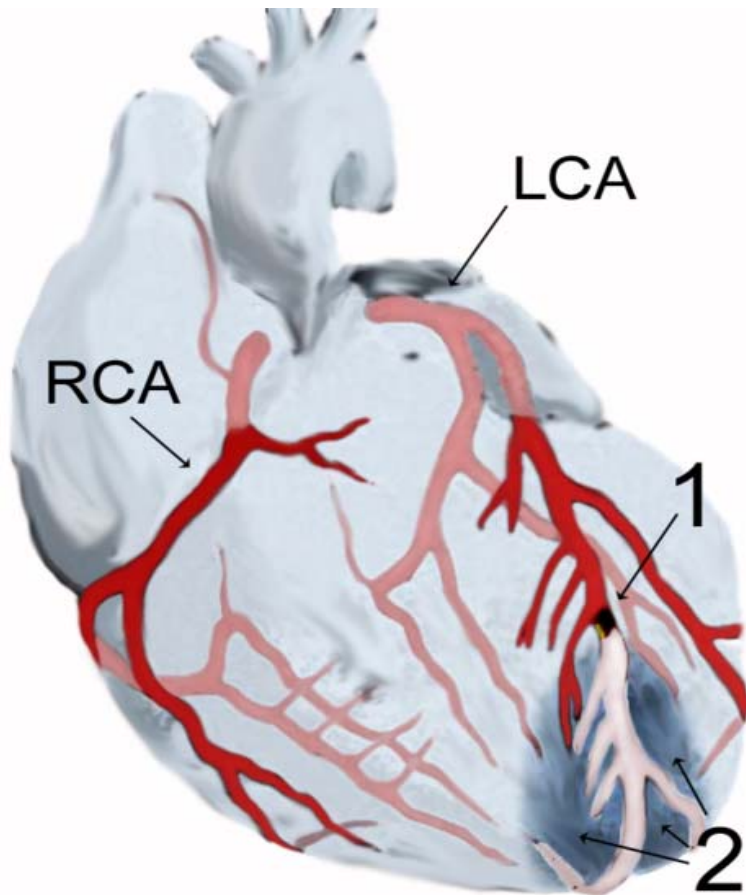
Coronary Artery Disease, Angina & MI

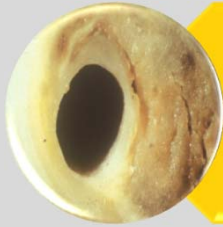


(a)

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Myocardial infarction





Pre-existing conditions



People who Smoke



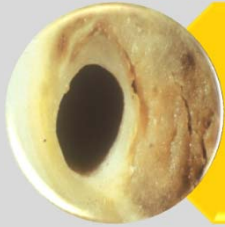
People with Diabetes



People with High Blood Pressure



People who are overweight



Prevention



Diet



Exercise



Management



Work?

Contact Information

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[@CROSH_CRSST](https://twitter.com/CROSH_CRSST)



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Conference Reference

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Center for Research in Occupational Safety and Health
(CROSH)

OHCOW Webinar, February 24th, 2021.

Centre for Research in Occupational Safety and Health **CROSH**



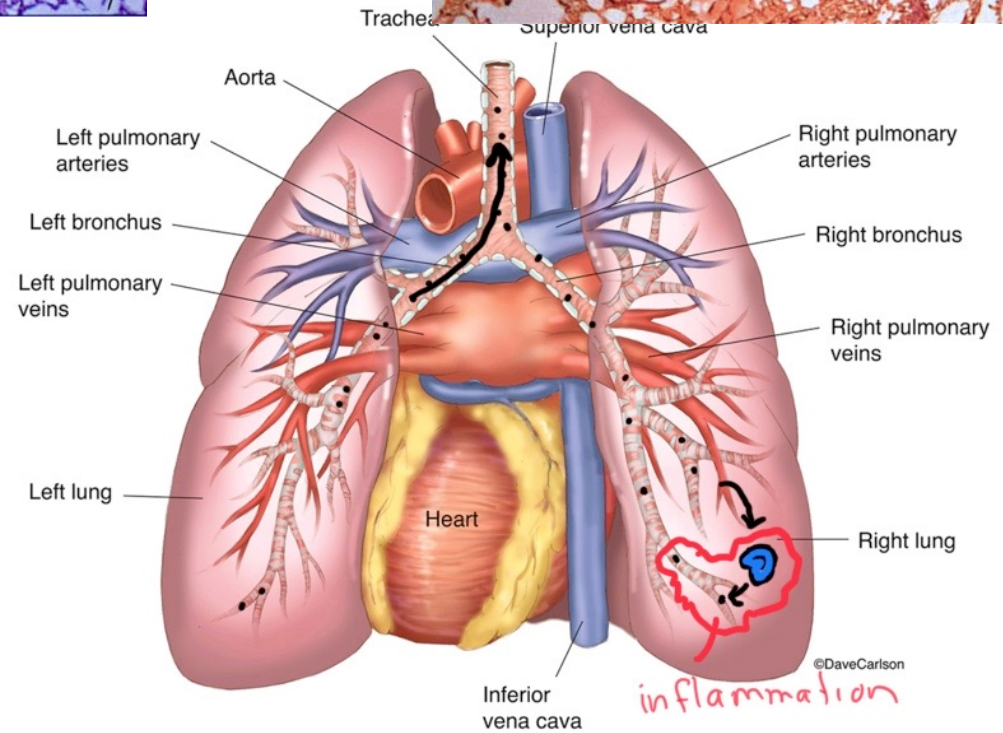
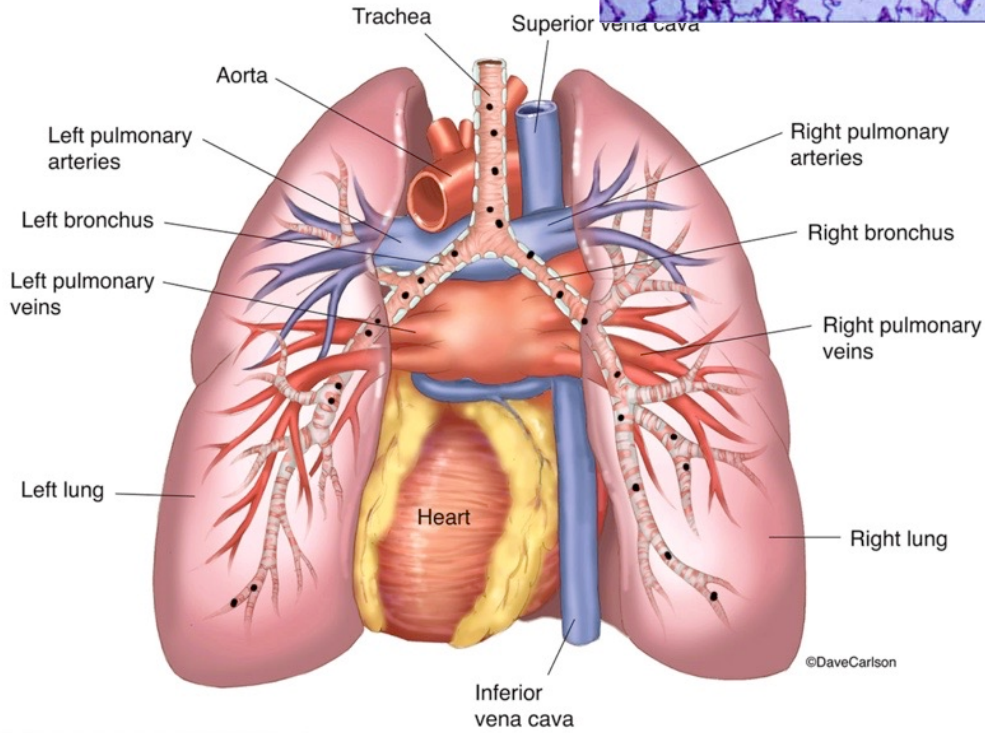
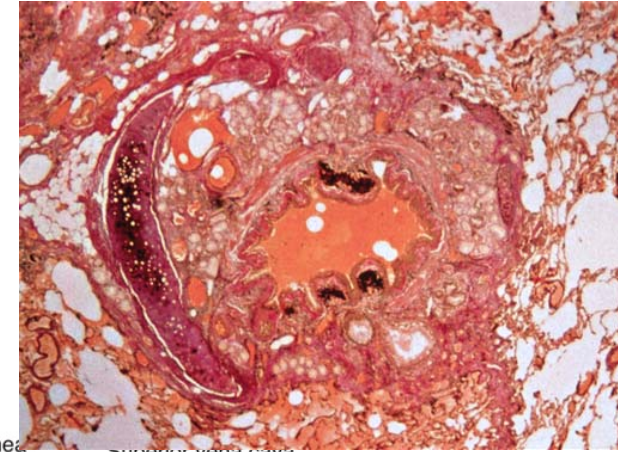
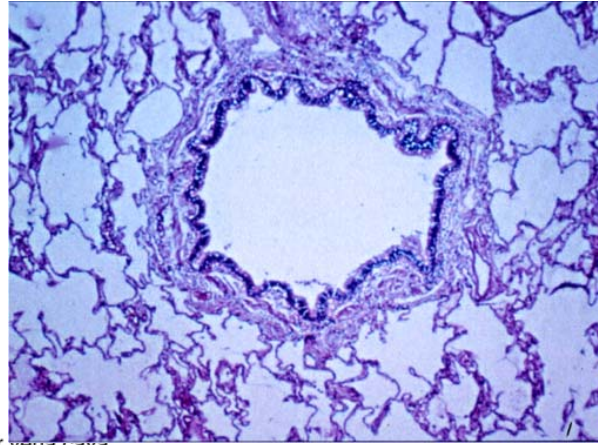
CROSH brings together industry, labour groups, safe workplace associations, government organizations and researchers to solve important occupational health and safety issues with the goal of achieving

PREVENTION THROUGH RESEARCH

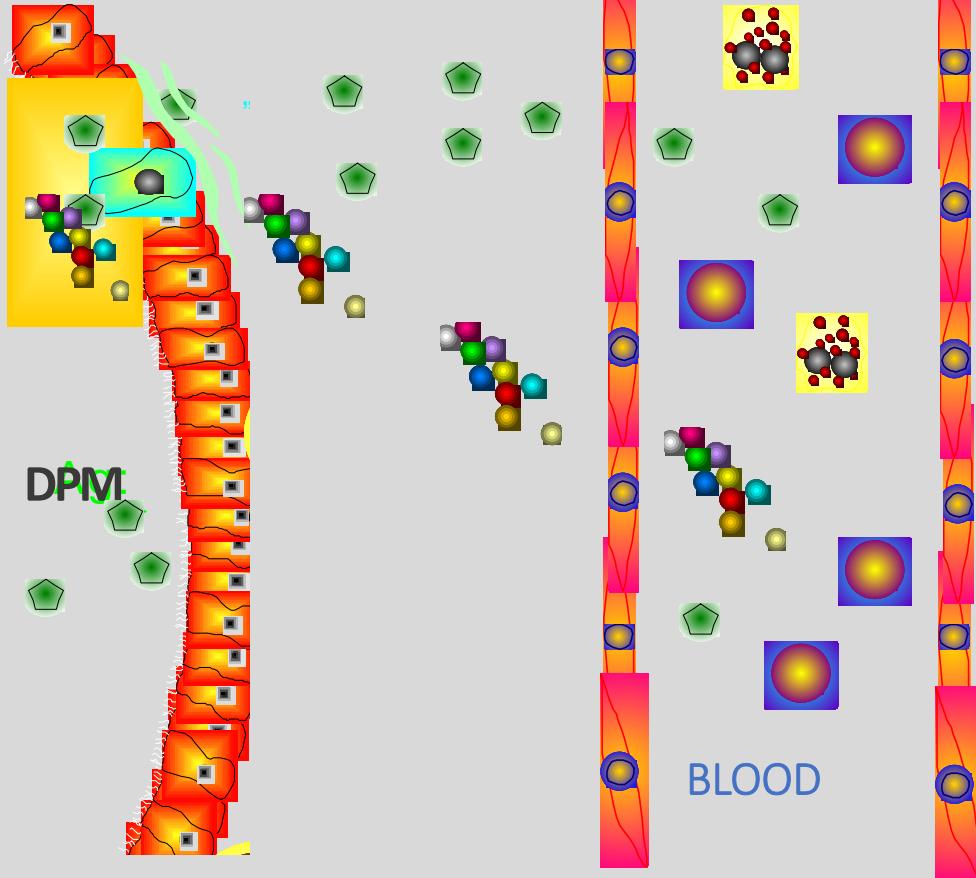


Mechanisms of DPM damage

Lung Injury



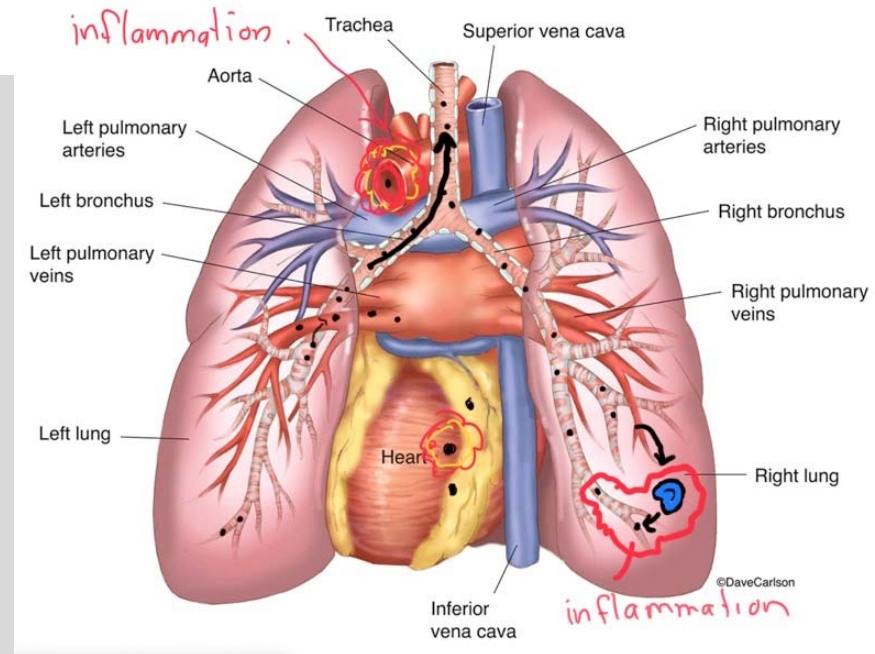
Translocation



DPM

AIRWAY

BLOOD



Cardiovascular Effects

Two Effects:

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

