**Particulate Matter Matters**

Particulate matter, also known as particle pollution or PM, is a mixture of extremely small particles and liquid droplets. Exposure to fine particles, which are 2.5 micrometers in diameter and smaller, can get deep into the lungs and cause serious health problems.

**By Inhaling Polluted Air, Fine Particles Enter The Lung System And...**

1. Cause inflammation which continues through to the bloodstream
2. Alter the autonomic nervous system functions
3. Enter vascular circulation and impact the cardiovascular system

**Fine Particulate Matter May Affect Cardiovascular Health**

**In the Brain**
- May constrict blood flow to the brain, stopping it from meeting metabolic demand

**In the Heart**
- May create irregular heartbeat
- May lower blood flow to the heart muscle via the coronary arteries
- May increase the risk of non fatal heart attacks

**In the Lungs**
- May induce inflammation and oxidative stress

**In the Blood**
- May alter flow of blood through to the heart and blood vessels
- May increase risk of forming blood clots
- May reduce oxygen saturation

**In the Vasculature**
- May harden arteries
- May hinder arteries and arterioles from widening fully in response to an appropriate stimulus
- May constrict blood vessels and create hypertension

**FIND OUT MORE:** www.dsm.com/human-nutrition

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**Nutrients that Help Counteract the Impact of Air Pollution on Cardiovascular Health**

- **Vitamin C**
  - Acts together with vitamin E as an antioxidant system.

- **Vitamin E**
  - Helps protect against free radical damage.

- **Omega-3 EPA and DHA**
  - Contributes to the normal function of the heart.

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**Quality for Life**

For DSM, quality is a way of life. Quality for Life™ symbolizes quality, reliability and traceability. This means that our customers are getting the best ingredients, knowing the source on which they depend. Quality for Life™ means sustainability. It is our commitment to our environment, consumers, our business partners, our people and the regulatory framework that governs our operations.

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