

## Hypertension Risk from Iron Brake Particulate Matter

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### Abstract

With space flight (SF) significant reductions of serum Mg ( $P < 0.0001$ ) despite poor serum sensitivity, shown in space shuttle crew members. Mg, a strong antioxidant and calcium blocker; with SF, there is oxidative stress, insulin resistance, inflammatory conditions; in experimental animals significant endothelial injuries to mitochondria, reductions in transferrin and in turn oxidative stress. Inhalation of Lunar iron (Ir) particulate matter contributes to stress test - hypertension on Earth return (ER): James Irwin's blood pressure (BP) 275/125 after 3 minutes of exercise (ER); Neil Armstrong showed very high diastolic BP 160/135 on ER, consistent with impaired cardiac function. Magnet (M) studies of value on moon; similarly, M studies on Earth used to quantitate high indoor Ir levels. Since over 90 % of brakes made of Ir, combination Ir brake dust inhalation and Mg deficiencies in over 60% U.S. population, may be important factors intensifying worldwide hypertension.



### Biography:

William J. Rowe M.D. FBIS (Fellow British Interplanetary Society), FACN (Fellow American College of Nutrition, Retired Fellow Royal Society of Medicine), is a board certified specialist in Internal Medicine. He received his M.D. at the University of Cincinnati and was in private practice in Toledo, Ohio for 34 years. During that time he supervised over 5000 symptom - limited maximum hospital-based treadmill stress tests. He studied 3 world class extraordinary endurance athletes and published their exercise-related magnesium deficiencies. This triggered a 20 year pursuit of the cardiovascular complications of Space flight. All his publications are posted on his website [www.femsinspace.com](http://www.femsinspace.com).

### Speaker Publications:

1. Coronary artery disease and lunar catecholamine cardiomyopathy, Rowe WJ, International J. Cardiology, 231: 42-46, 2017
2. Neil Armstrong's Lunar Diastolic Hypertension. Rowe WJ J. Hypertens Management 2017, 3: 029e
3. Brake iron dust inhalation intensifying hypertension Rowe WJ International J. Cardiology 2018 September 1, 2018 Volume 266, Page 261.
4. Editorial Brake Iron Dust Inhalation, Magnesium Deficiencies and Hypertension Rowe WJ J. Hypertens Manag 2018, 4: 031e.
5. Rowe WJ The Iron Brake Dust Age and the Female Advantage. Journal Hypertension and Management Editorial Vol. 4, Issue 2, 2018

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