

## The genetics of white finger disease

Vibration-induced white finger disease (VWF) is caused by continued use of vibrating hand held machinery (high frequency vibration >50 Hz), and affects tens of thousands of people. New research published in BioMed Central's open access journal *Clinical Epigenetics* finds that people with a genetic polymorphism (A2191G) in sirtuin1 (SIRT1), a protein involved in the regulation of endothelial NOS (eNOS), are more likely to suffer from vibration-induced white finger disease.

VWF (also known as hand arm vibration syndrome (HAVS)) is a secondary form of Raynaud's disease involving the blood vessels and nerves of arms, fingers and hands. Affected fingers feel stiff and cold and lose sensation for the duration of the attack, which can be very painful. Loss of sensation can make it difficult to carry out manual activities. Initially attacks are triggered by cold temperatures but as the disease progresses attacks can occur at any time.

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