Gulf War veterans show signs of permanently damaged DNA

Researchers say they have found the "first direct biological evidence" of damage in Veterans with Gulf War illness to DNA within cellular structures that produce energy in the body."

• • •

In blood tests, researchers observed more lesions and more mitochondrial DNA—that is, extra copies of genes—in Veterans with Gulf War illness, relative to controls without the illness, suggesting excess DNA damage. Lesion frequency gives a direct measure of DNA damage, while the increased number of mtDNA copies reflects a response to the damage. Both lesion frequency and the number of mtDNA copies vary in response to environmental toxins and together provide a reading of overall mitochondrial health.

...

[Dr. Mike Falvo] notes that everyone experiences some level of mtDNA damage, perhaps due to aging and environmental exposures, such as air pollution. In the study, the mtDNA damage was 20 percent greater in the Veteran group, compared with a control group that included three Veterans without GWI and four non-Veterans.

•••

"Mitochondrial dysfunction among Veterans with GWI may help explain, in part, the persistence of this illness for over 25 years," the researchers on Falvo's study write. "For example, chemical and environmental exposures during deployment may have provided the initial [harm] to mtDNA and accumulation of damage."

[Editor's note: Read the full study]

The GLP aggregated and excerpted this blog/article to reflect the diversity of news, opinion, and analysis. Read full, original post: Evidence of DNA damage in Vets with Gulf War Illness