

# Gene makeup may help explain amputees' chronic pain

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Finding of potential value to thousands of U.S. vets who've lost limbs, study says.

(HealthDay)—Soldiers with certain gene variations seem more likely than others to have chronic pain after limb amputation, a small study says.

Researchers analyzed blood samples from 49 U.S. soldiers who had persistent [pain](#) after amputation and identified hundreds of previously unknown gene variations that could play a role in the soldiers' [chronic pain](#).

The study is scheduled for presentation Monday at the annual meeting of the American Society of Anesthesiologists in San Francisco.

"Traumatic amputations of limbs profoundly change the lives of affected military service members," study author Dr. Andrew Shaw, an associate professor of anesthesiology and critical care medicine at Duke University Medical Center, said in a society news release.

"Persistent phantom pain after amputation is a serious problem with no effective treatments. By identifying these 'pain genes,' we may be able to discover the reasons why pain occurs and predict which patients are more likely to have it. In the future, we hope to discover the biology of

[persistent pain](#) and develop ways to combat it."

As many as 80 percent of all amputees experience pain in the remaining part of their limb or a "[phantom pain](#)" in the part of the limb that is missing, according to the *Journal of the International Association for the Study of Pain*.

Between 2000 and 2011, more than 5,600 U.S. military personnel underwent 6,144 amputations, according to the Armed Forces Health Surveillance Center. More than one-third of them had major [amputations](#), defined as the loss of a hand, foot or more.

Findings presented at medical meetings are typically considered preliminary until published in a peer-reviewed medical journal.

**More information:** The Amputee Coalition of America has more about [post-amputation pain](#).

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