

SCIENCE | Q&A

Sweating the Effects of Antiperspirants

By C. CLAIBORNE RAY FEB. 6, 2016

Q. If it is natural for the body to sweat to get rid of toxins (and to cool itself), can antiperspirants harm the body?

A. Sweat glands do have an important role in eliminating undesirable substances from the body, but blocking “a few sweat glands under the armpit does not have a significant impact on the overall excretion of sweat,” said Dr. Hooman Khorasani, an assistant professor of dermatology at the Icahn School of Medicine at Mount Sinai. Other organs are involved in eliminating wastes as well, he said.

Antiperspirants are aluminum salts that form a gel with sweat and occlude the ducts of sweat glands, Dr. Khorasani said. Therefore, some sweat is absorbed by the dermis, the thicker layer of the skin beneath the epidermis, and is not excreted.

Sweat glands do play a major role in eliminating potentially harmful substances, even excess prescription drugs, as well as in controlling temperature, Dr. Khorasani said. The glands are distributed all over the body, not just under the arms.

“Our body also produces urea, which is the nitrogen byproduct of protein metabolism,” he said. “Luckily, the sweat glands are not the only way of eliminating urea, as the kidneys do most of the elimination. Therefore, there is

not a significant buildup of biological waste with the use of antiperspirants.”
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Questions of general interest will be answered, but requests for medical advice cannot be honored and unpublished letters cannot be answered individually.

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