

Why you really are extra tasty to mosquitoes

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With the exception of maybe a mosquito's mother, the world is unified in its hatred of the little critters. But the world seems divided by those the bugs ignore and those who too often become the blood soup du jour.

This may seem random, but scientist say there is a real reason for it: blame your parents.

For the first time, scientists discovered a possible genetic reason why some of us are mosquito magnets, at least according to a pilot study from the London School of Hygiene &Tropical Medicine. It's published in the <u>recent edition of PLOS ONE</u>.

To figure this out, scientists released Aedes aegypti, also known <u>as dengue mosquitoes</u>, into a tube. The tube was divided into two sections. The bugs were essentially given a choice to swipe left or swipe right and fly down either side.

At the other end of the tube were a pair of twins. Eighteen identical and 19 nonidentical female twins volunteered to be mosquito meat. With these pairs, scientists saw a difference in who the bugs chose. When the twins were identical, the two would either be equally attractive or not attractive to the mosquitoes. When the twins were not identical, the choice varied. That, scientists say, suggests there is a genetic component to the mosquito law of attraction. Identical twins have identical genes. With fraternal twins, there are differences.

This gene that makes people more attractive might influence how someone smells to the insect.



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This research builds on earlier studies that show a person's body odor may play a role in who gets bitten more. Earlier studies have found people with a particular type and volume of bacteria that naturally occurs on skin may make people more of a target. Same with people with Type O blood, which is linked to a particular odorant marker in sweat.

Pregnant women <u>sweat more</u> because pregnancy raises their average body temperature about 1.26 degrees, so they are bitten more often. The same has been shown with people who are heavier.

Knowing how this works will not keep you safe from the little buggers this summer, scientists need to do more research. But eventually, this may mean researchers could figure out a way to neutralize this particular odor, if that's what the mosquitoes like. This could mean fewer mosquito bites, and it may mean fewer cases of yellow fever and dengue since these particular bugs are often the carriers of these viruses.

In the meantime, Missy Henriksen from the <u>National Pest Management Association</u> suggests people wear the bug repellant that is on the market any time you go outside.

"We've gotten pretty good about sun screen, but people need to get better about protecting themselves against insects as well, since mosquitoes are more than just a nuisance. They carry disease."

Henriksen and the <u>Centers for Disease Control and Prevention recommend using products</u> that have one of four active ingredients. Check the label for <u>DEET</u>, <u>picaridin</u>, <u>IR3535 and/or lemon eucalyptus and para-methane-diol products</u>. These products are effective, and they are registered with the EPA (meaning the EPA believes the chemical will only hurt the mosquitoes not you).

Henriksen also suggests you may want to wear shirts with long sleeves and long pants if you can stand it in the heat of summer.

"Bugs (are less likely to) bite what they can't access," she said. And hopefully someday, bugs won't be able to suck what they can't smell.