

# Are you a mosquito magnet? Here's why and what you can do about it

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Mosquitoes are some of the most effective hunters on the planet. They can track you down at great distance by sniffing out the air you breathe.

Once they find exposed skin, they use their needle-like proboscises to suck your blood. But you may not notice, because their saliva contains an anesthetic to numb the pain.

In 90 seconds, they've had their fill of blood. It's only a few microliters, but there are enough nutrients to lay a hundred eggs.

Mosquitoes are also efficient disease vectors, with the potential to spread dengue, Ross River virus and Buruli ulcer by biting multiple people in their lifetime.

Not all mosquito species need blood, and of those that do, it's only the females that bite.

Many mosquitoes are opportunistic, feeding on anything from birds to mammals and even fish. Others have more specific and peculiar tastes, like *Mimomyia elegans* which seeks out the nostrils of frogs.

But it's the *Aedes aegypti* mosquito (which spreads dengue) that is a connoisseur of humans.

Not only do they prefer us over other mammals, but they preferentially seek out some people over others. [In our own laboratory experiments](#), some people attracted more than 90% of the mosquitoes when given the choice between two people.

## **Mozzies love me**

So why are some people mosquito magnets? Well, it's mainly due to the way you smell.

Recent research shows that people who are more attractive to mosquitoes have [higher levels of carboxylic acids emitted from their](#)

[skin](#). It remains unclear what causes this difference, but a person's unique and enduring skin microbiota is thought to play a major role.

While there is a [strong genetic component](#), non-genetic factors like physical activity and the use of perfumes can influence mosquito attraction too.

Additionally, physiological changes may explain why [pregnant women](#) may be more attractive to mosquitoes than non-pregnant women, perhaps due to higher metabolic rate, heat production, and amplified release of volatile skin compounds.

Age may also be a consideration, with [mosquitoes showing a preference for adults](#) over children when seeking a [blood meal](#).

Other traits like [blood type](#) and gender are often thought to be influential, but the evidence for this is [conflicting and largely unconvincing](#).

## Get thee hence, mozzie

Even if you are a mosquito magnet there are still effective ways to avoid being bitten.

Wearing long and loose-fitting clothing and repellents containing [DEET or picaridin](#) will provide strong protection against [mosquito bites](#), while [eating garlic or Vitamin B as a dietary repellent](#) against mosquitoes is a myth.

Interestingly, [avoiding orange, red or cyan](#) when you're choosing what to wear may indeed make you less alluring to mosquitoes on the hunt. And in bad news for some Australians, [drinking less beer](#) is also thought to be effective.

Another question we get a lot as mosquito researchers is if you are more attractive to a mozzie, does this mean your blood is more nutritious?

Although the basic composition of human blood is comparable, there is variation among people in their relative concentrations of [nutritive amino acids and fatty acids that may influence attraction](#).

Perhaps one reason why you are a mosquito magnet is your blood offers the perfect ratio of these ingredients to create a hearty and nutrient-dense dining experience. We appreciate this may not make you feel any better though.

Whether there is any link between the two remains an open question, but something we intend to address with future research.

In the meantime, if you are a magnet, you can protect yourself from the unwanted attention of mozzies. Or just hope that someone else nearby is an even more powerful mosquito magnet than you.

Provided by University of Melbourne

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