



by jok church

**YOU CAN**

Internet jok@nbn.com

With **beakman & jax**

Send your question to: Beakman or Jax,  
P.O. Box 30177, Kansas City, MO 64112

Dear Beakman,  
Why does a mosquito bite itch?  
Christina DeMarco  
Orchard Park,  
New York

Dear Christina,

Scientists need a bit of glamour to get the money it takes to research stuff. And *mosquito spit* just isn't that glamorous, even though that's why you itch.

Mosquitoes inject you with it. One of the chemicals in the spit is called *apyrase* (ay-PIE-raise). *Pyr* means fire, as in: burning itch you just have to scratch.

We don't know much about the other things in mosquito spit because there are only a few people on the planet looking into this burning question.

*Beakman*  
Beakman Place

## experiment #1

**WHAT YOU NEED:** Serendipity - mosquitoes - healthy dislike for the little bloodsuckers

**WHAT TO DO:** Let's face it. The next time you're sitting outside in the evening, you may just find a mosquito on your skin, sucking up blood. If you do, pay close attention; conduct an examination. Watch what she does. If you look closely, *You Can* see a little tube sticking into your arm. It's like a hollow tongue.

Now stop and think a minute, here. Isn't blood too thick to travel through that teeny, tiny tube?

**up close & personal**



### WHAT IS GOING ON:

Blood has these little cork-like things floating in it called *platelets*. Whenever there's a leak, platelets rush in to start plugging it and stop the flow of blood. That kind of kevorks the idea of blood sucking. But mosquitoes come prepared. The chemicals they inject into you - like *apyrase* - shut off the platelets and allow the blood to flow freely. Unfortunately, the spit they're in makes you itch like mad once she flies away.

This is a close-up of a mosquito's eye. Each little dome is a separate lens. It can't see details. But this kind of eye can spot any kind of motion really well.

This is a mosquito's tongue. It's called a proboscis (pro-BOSS-cus). This is what the bug sticks into your skin. Apyrase gets pumped in to keep the blood flowing. On the other end of this thing, the mosquito has actual pumps it uses to suck out your blood.

