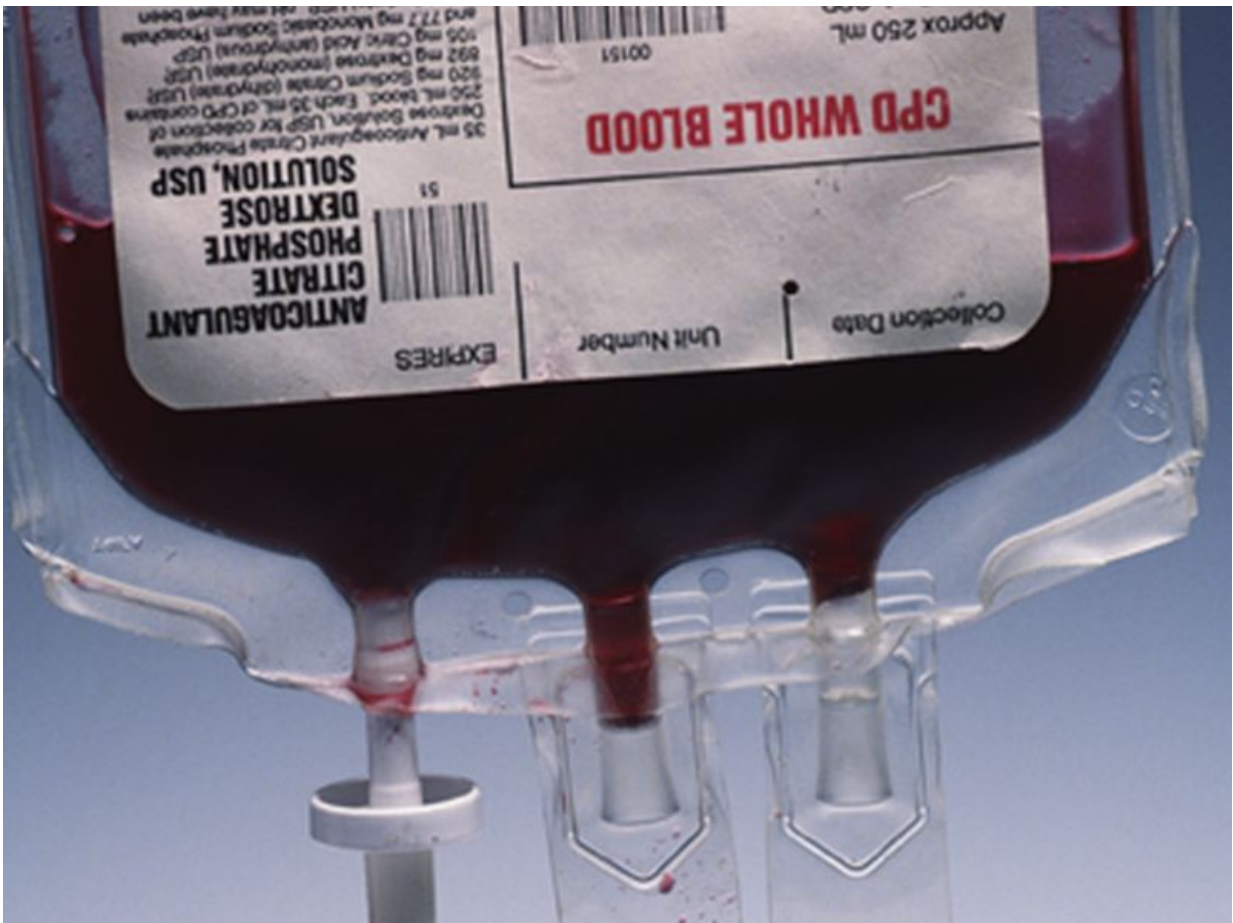


U.S. blood supply safe from Zika virus, officials say

April 7 2017, by Dennis Thompson, Healthday Reporter



(HealthDay)—U.S. blood banks are confident they have the tools to

protect America's blood supply from possible new Zika virus outbreaks during the upcoming mosquito season.

A transfusion of Zika-tainted blood can pass the virus to an unsuspecting recipient, according to the U.S. Centers for Disease Control and Prevention.

But sophisticated genetic tests and blood processing procedures make it highly unlikely that anyone will contract Zika from donated blood, according to a series of articles in a special issue of the journal *Transfusion*.

Every [blood donation](#) in the United States undergoes testing for the presence of Zika virus, based on guidance from the U.S. Food and Drug Administration, said Susan Stramer, vice president of scientific affairs for the American Red Cross.

About 40 U.S. donations have tested positive for Zika since screening began, mostly in Florida, Stramer said.

Thanks to this testing, there have been no documented or alleged cases of Zika infection through blood transfusion in either the United States or its territories, said Dr. Louis Katz, chief medical officer of America's Blood Centers.

The risk "was low before donor screening and is an extremely remote possibility now, with donor blood screening in place," Katz said. "Further, women in the most vulnerable period of pregnancy for bad fetal outcomes are rarely transfused in the United States, so [Zika-related birth defects] are even remoter risks."

Zika causes no symptoms in 4 out of 5 people infected, so it's unlikely that most donors would suspect they're carrying the virus.

Zika poses its main threat to the unborn, increasing a pregnant woman's risk of delivering a baby with microcephaly or other birth defects. One out of 10 pregnant U.S. women with confirmed infection in 2016 had a fetus or baby affected by Zika-related birth defects, the CDC said.

Microcephaly causes newborns to have underdeveloped heads and brains.

Four people in Brazil have contracted Zika through blood from three infected donors, Stramer said. At that time, blood donations were not being effectively screened in that country.

U.S. blood banks use two tests that look for the genetic material of Zika in samples, Katz said. Any donations with potential infection are discarded.

Blood sample screening in the southern United States last year detected 23 potentially Zika-tainted donations out of nearly 360,000. Fourteen of those samples, all from Florida, were judged as probably infected based on further genetic testing and interviews with donors, according to one of the new studies.

Ten of the 14 donors reported travel to an active Zika transmission area within 90 days before donating blood, researchers reported. Two involved travel within the Miami outbreak area, while the rest involved travel to Puerto Rico, Jamaica, Trinidad, Mexico, Cuba or the Dominican Republic.

A second study reported detection of five Zika-tainted samples out of more than 466,000 donations across the entire United States, all linked to travel in Central or South America. The cases occurred in Arizona, California, Nevada, New York and Texas.

"We know these tests are extremely sensitive. They are much more sensitive than tests used in diagnostic public health labs," Stramer said. "It's highly unlikely that we would miss an infectious unit, but we never say never."

These tests also have detected more than 350 infected blood donations in Puerto Rico, where Zika transmission reached epidemic levels last year, the researchers said.

The screening tests are so effective that donation centers don't bother asking about travel to active Zika areas. "We'll get a more truthful answer from testing that we would by asking a donor about travel history," Stramer said.

Routine blood processing adds another layer of protection to the [blood supply](#). A third study in the journal reports that Zika is inactivated when plasma is separated from whole blood and undergoes standard pasteurization.

"Indeed, Zika virus seems to be more sensitive to heat than other closely related viruses," federal regulators wrote in an accompanying editorial.

However, because pasteurization alters proteins in whole blood, it can't be used to rid most donor blood of Zika, Stramer noted.

In any case, people are much more likely to contract Zika from mosquitoes, or even from transmission during sex, than from a [blood donation](#), Stramer and Katz agreed.

"It's biologically possible. Transfusion transmission has been demonstrated. But the risk in the U.S. is remote," Stramer said.

Though largely confined to Latin America and the Caribbean in 2016,

Zika appeared in the United States last summer, with local transmission occurring in a couple of Miami-area neighborhoods.

However, so far, most U.S. cases of Zika have occurred in travelers who contracted the virus in other countries. Of 5,197 cases reported, only 222 occurred due to local transmission, most of them in Florida, according to the CDC.

More information: Susan Stramer, Ph.D., vice president, scientific affairs, American Red Cross; Louis Katz, M.D., chief medical officer, America's Blood Centers; March 2017, *Transfusion*

For more on Zika infection through transfusion, visit the [U.S. Centers for Disease Control and Prevention](#).

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