GRAPHIC: Chart, How AIDS Virus Infects Cells. The Washington Post

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Certain Sex Practices Carry Greatest Risk

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BODY:
A sheriff in California warns his deputies to "consider AIDS" before giving cardio-pulmonary resuscitation without plastic devices to prevent mouth-to-mouth contact between rescue techicians and their patients.

Elsewhere: Dentists are urged to wear gloves and heat-sterilize all equipment. Eye doctors get similar instructions. School officials ban a 13-year-old hemophiliac AIDS victim from classes. Actresses are reportedly hesitant about kissing their gay leading men. Residents of Belle Glade, Fla. -- which has the nation's highest AIDS rate -- worry that mosquitoes may be transmitting the disease there. Several Australian women show AIDS-like symptoms after artifical insemination with semen from the same donor.

The virus for AIDS has been isolated in virtually all body fluids, even saliva and tears, and fears of contracting the relentless killer are having an increasingly chilling effect, not only within the gay community, but in an ever-widening circle of society.

There is no cure, no vaccine, and although scientific progress in identifying the causative agent is a signal triumph, there is not a great deal science can offer to allay public fears.

"The trouble is," says Dr. Harold Jaffe, the deputy director of the AIDS task force at the federal Centers for Disease Control in Atlanta, "people are looking for absolute guarantees. They want you to say that it is absolutely impossible for the disease to be spread this way or that way, and they're not happy with an answer that says, 'We've never seen that,' or even, 'It is extremely unlikely.'

"For AIDS, people want assurances that it is impossible to give them."

In this country, three out of four AIDS victims are homosexual and bisexual men. It appears closely linked to the particular gay life style that involves multiple partners and often-violent oral and anal sexual contact.

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But it also is spread by contaminated needles, shared casually among abusers of intravenous drugs, and -- until recent screening tests virtually eliminated the possibility -- by transfusions of contaminated blood and use of blood products. It can be transmitted by an infected mother to an unborn child.

In Africa, where the mysterious retrovirus may have originated, it is spread by heterosexual contact, but also by blood transfusions and contaminated needles. Most cases involving AIDS transmission from a woman to a man have occurred in Africa, says the CDC's Jaffe, where it appears that using prostitutes poses a risk. "The evidence for this kind of transmission in the United States is not as strong," he says, "but it is true that there is a small number of men with AIDS who say their only risk factor was contact with a woman drug user. It is also true that some men we can't classify into any of the other risk groups say that they have had prostitute contact.

"It may be we haven't seen very much of this female-to-male transmission because the number of infected women in the U.S. population is probably fairly small. Secondly, it may be biologically less efficient to transmit the disease from women, but I think we have to assume it occurs."

Some pathologists who are studying AIDS at the National Institutes of Health believe that some homosexual practices have inadvertantly given the virus a particularly efficient route of transmission.

They have found -- and have published -- evidence that the particular type of immune system cell that is vulnerable to the AIDS virus is clustered close to the rectum. According to their still controversial theory, these cells run along the entire intestinal tract to protect the body from invasion from what one researcher called "the sewer we have running through our bodies."

AIDS is not transmitted by casual contact with victims, experts say. Not even the pathologists who performed the first autopsies on AIDS victims have shown any evidence of AIDS themselves. In fact, Jaffe notes that in the entire world, there is only one case -- out of hundreds of accidents -- in which a British health care worker, accidentally exposed by being jabbed with a contaminated needle, has developed antibodies to the virus.

Gay health groups are urging homosexuals and bisexuals to refrain from the kinds of activities -- barely known to many members of so-called straight society -- that seem to facilitate AIDS transmission.

In "safe sex" fliers and brochures, some of them subtle, some clinically graphic, gay and bisexual men are urged to forgo sexual activities in which damage is done to the rectal area or in which there is oral/anal contact. The British medical journal The Lancet has warned that the "anal receptive" partner is at greater risk than the "anal assertive."

Gays are also urged to give up the practice of "cruising" and the casual sexual encounters it implies. The use of condoms is strongly encouraged.

Heterosexuals are also urged to confine sexual relations to a single partner well known to them. Women should avoid unsafe sexual practices with bisexual men. AIDS does not appear to be a threat among lesbians.

"I think it's going to turn out that there are certain routes of transmission more efficient than others," says Jaffe, "but you have to assume that any sort of sexual contact that would involve exposure to semen or to blood including menstrual blood is potentially dangerous."

he CDC's AIDS task force is taking these steps, Jaffe says, to clarify the AIDS transmission routes: Despatching a team to investigate the high AIDS rate in Belle Glade, Fla. "Mosquito transmission, as has been suggested there," says Jaffe, "is a complicated question. If you talk about mosquito transmission, you're talking about two possibilities. One is that the virus could actually replicate within a mosquito the way malaria has part of its life cycle in the mosquito. We think that is extremely unlikely. The AIDS virus is extremely selective about the kind of cell in which it will replicate.

"But could the mosquito be just a mechanical means of getting blood from one person to another? It could be, but our feeling is that it very likely is not. Health care workers with contaminated needle-sticks get more blood than a mosquito could transmit, for example. But, I don't think you can say it's impossible." Interviewing all AIDS patients to determine their risk factors.Studying families of drug addicts with AIDS. Studying families of patients with transfusion AIDS to help determine the risk to sexual partners and to other family members.Funding local health department blood tests of prostitutes. Funding VD clinic and blood bank studies to find proportion of people with virus antibodies who have no apparent risks.

So far, says Jaffe, "the only people in families with infected members who seem to get infected themselves are the sexual partners of the patients or infant children born to infected mothers. We don't find infection of older children in the household or in other adults.

"Again, that would be a setting where you would expect that there would be very close contact. So given that, it is hard to imagine that much less intimate contact, the kind that would take place at work, school or church, would transmit the disease."