

## TEXT 1

## HIV INFECTION IN ADOLESCENTS

**A** The human immunodeficiency virus (HIV), which causes AIDS, ranks 1  
seventh among the leading causes of death for U.S. children 5 to 14 years of age  
and sixth for young people 15 to 24 years of age. Because the average period of  
time from HIV infection to the development of AIDS is 10 years, most young  
adults with AIDS were likely infected with HIV as adolescents. Almost 18 5  
percent of all reported cases of AIDS in the United States have occurred in  
people between the ages of 20 and 29.

In the United States, through June 1999, 3,564 cases of AIDS in people aged  
13 through 19 had been reported to the Centers for Diseases Control and  
Prevention. Many other adolescents are currently infected with HIV but have not 10  
yet developed AIDS. Data from the 31 states that conduct HIV case surveillance  
indicate that among adolescents aged 13 through 19: 46 percent were male; 54  
percent were female; 28 percent were non-Hispanic white; 66 percent were non-  
Hispanic black; 5 percent were Hispanic; less than 1 percent were Asian/Pacific  
Islander or American Indian/Alaskan Native. 15

**C** Most adolescents recently infected with HIV are exposed to the virus  
through sexual intercourse or injection drug use. Through June 1999, HIV  
surveillance data suggest that nearly half of all HIV-infected adolescent males  
are infected through sex with men. A small percentage of males appear to be  
exposed by injection drug use and/or heterosexual contact. The same data 20  
suggest that almost half of all adolescent females who are infected with HIV  
were exposed through heterosexual contact and a very small percentage through  
injection drug use.

**D** CDC studies conducted every two years in high schools (grades nine through  
12) consistently indicate that approximately 60 percent of the students have had 25  
sexual intercourse by grade 12; half report use of a latex condom during last  
sexual intercourse, and about one-fifth have had more than four lifetime sex  
partners.

**E** Approximately two-thirds of the 12 million cases of sexually transmitted  
diseases (STDs) that are reported in the United States each year are in 30  
individuals under the age of 25 and one-quarter are among teenagers. This is  
particularly significant because if either partner is infected with another STD,  
the risk of HIV transmission increases substantially. If one of the partners is  
infected with an STD that causes the discharge of pus and mucus, such as  
gonorrhea or chlamydia, the risk of HIV transmission is three to five times 35  
greater. If one of the partners is infected with an STD that causes ulcers, such as  
syphilis or genital herpes, the risk of HIV transmission is nine times greater.

**F** Adolescents tend to think they are invincible, and therefore, to deny any risk.  
This belief may cause them to engage in risky behavior, to delay HIV-testing,  
and if they test positive, to delay or refuse treatment. Doctors report that many 40  
young people, when they learn they are HIV-positive, take several months to  
accept their diagnosis and return for treatment. Health care professionals may be  
able to help these adolescents by explaining the information slowly and  
carefully, eliciting questions from them, and emphasizing the success of newly  
available treatments. 45

## TEXT 1

## HIV INFECTION IN ADOLESCENTS

*Mark your answers on the Answer Sheet*

**I. The text is divided into sections A, B, C, D, E and F. Using EACH LETTER ONLY ONCE, identify which section of the text**

1. points out the overconfidence of adolescents in themselves as one of the main reasons for the spread of HIV.
2. shows that homosexual behavior is the most important cause of HIV infection among adolescent males in the USA.
3. presents evidence to the effect that there is great disparity among the different ethnic groups in respect of HIV infection.
4. refers to the high incidence of promiscuity among adolescents.
5. argues that most young adults who die of AIDS must have been infected by the HIV when they were adolescents.
6. points to increased risk of HIV transmission among people already suffering from other sexual diseases.

**II. Are these statements True (T) or False (F) according to the text?**

7. Adolescents are in general more likely to listen to medical advice than young adults. More and more adolescents are confident today that, thanks to the advance of the
8. medical science, they do not run the risk of dying of AIDS. Adolescents infected by HIV develop AIDS much faster than persons from other age
9. groups. HIV infection among adolescents is steadily decreasing in the US.
- 10.

**III. Complete each of the following sentences by choosing a, b, c, or d**

11. The word "likely" (underlined, line 5) in the text means

- a) certainly
- b) enjoyably
- c) probably
- d) none of the above

12. "Chlamydia" (underlined, line 35) is

- a) one of the causes of HIV transmission.
- b) the name of a sexually transmitted disease.
- c) responsible for the high incidence of AIDS among teenagers.
- d) an early manifestation of HIV infection.

Autism (and the related pervasive developmental disorders) is a severe developmental *disorder* which, left unchecked, almost always progresses to developmental *disability* at a young age. The — (13) of the disorder are largely unknown; they include genetic and environmental (chemical and biological) factors, or some interaction of the two. (Many in the psychoanalytic community once believed that lack of parental nurturing was the cause, but **that** is perhaps the only factor we now know is *not* important.) Symptoms may be present from or even before birth (yes, Moms can tell), or appear gradually or suddenly after two or more years of apparently normal development. — (14) some related conditions such as Landau-Kleffner syndrome cause measurable changes in brain activity, in most cases the only diagnostic information is the child's behavior. Other biological markers are **sketchy**: there is some evidence of altered neurotransmitter (serotonin) levels; some children show slight physical changes, such as the shape of their ears; there is a strong correlation with maleness and non-righthandedness; and there is correlation with certain genes. There is about a one in nine chance that a sibling — (15) also have autism.

The early symptoms may include grossly delayed language or motor development; atypical play, such as spinning, lining up, staring at, or feeling toys (but no pretend play); lack of peer play or friendships; stereotyped (repeated unchanging) body movements; or pronounced fears, crying fits, sleeplessness, or noise sensitivity. In — (16) of the typical progression of skills, the young child with autism may develop some skills early, such as the ability to recognize letters and signs (or even read), or the ability to make people smile by flirting or acting silly. These strengths may mask the severity of the many real deficits. (It is a common misconception that children with autism must be withdrawn; some are, but others are perfectly friendly. Real, and tragic, isolation sets — (17) later if they do not develop the social and communication skills expected of older children.)

Older children may develop aggressive, hazardous, or self-injurious behavior to such a degree that they require institutional care. Most do develop language, — (18) it may consist largely of "echoed" words and phrases. If functional language appears, it is frequently missing important social context. Asked to talk about a picture of an activity, for example, the child may say "The boy's shirt is red and he has five fingers on his left hand and five fingers on his right hand." He may insist on extreme sameness, counting every step to the kitchen, tantrumming if interrupted or the number of steps is not exactly 16. Even without the most severe symptoms, individuals with autism frequently have difficulty achieving independence, forming stable relationships, or being free of anxiety.

There is strong evidence that many or even most children with autism are actually able to learn as much as typically developing children, given the right environment. For many, there may be no deficit at all in the 'underlying' (cognitive) brain functions, but for — (19) reason the information does not get in and skills do not develop normally. There is, in effect, a learning 'blockage.' Some research points to the attention mechanism as a key culprit. As infants, children who later are diagnosed with autism are unable to switch attention from one stimulus to another as readily as their **peers**. (Can you read **this** and make sense of it while you are talking on the phone?)

We also don't understand well the "subtypes" or boundaries of autism. For any individual, professionals will differ — (20) what deficits may be due to autism, and what may be due to other disorders, such as ADHD, "nonverbal learning disorder," or other cognitive and learning difficulties. This leads to a proliferation of related official and not-quite-official diagnostic labels for people with different mixes of skills and deficits: hyperlexia, semantic-pragmatic disorder, Asperger's Syndrome, sensory integrative dysfunction, and so on. Many people put these into the bucket "autism spectrum disorder."

**TEXT 2****AUTISM**

Mark your answers on the Answer Sheet.

**I Choose a word from each of the following sets to fill in the numbered blank spaces in the text.**

13. \_\_\_\_\_ (line 3)

- a) motives
- b) reasons
- c) causes
- d) symptoms

14. \_\_\_\_\_ (line 8)

- a) Because
- b) Perhaps
- c) Curiously
- d) Although

15. \_\_\_\_\_ (line 14)

- a) will
- b) can
- c) must
- d) shall

16. \_\_\_\_\_ (line 18)

- a) respect
- b) place
- c) spite
- d) stead

17. \_\_\_\_\_ (line 23)

- a) out
- b) in
- c) up
- d) on

18. \_\_\_\_\_ (line 26)

- a) so
- b) because
- c) but
- d) somehow

19. \_\_\_\_\_ (line 37)

- a) some
- b) unknown
- c) any
- d) one

20. \_\_\_\_\_ (line 43)

- a) from
- b) on
- c) with
- d) over

**II What do the underlined words mean in the text?**

21. “sketchy” (line 11)

- a) unclear
- b) misleading
- c) reliable
- d) irrelevant

22. “peers” (line 40)

- a) children of the same age
- b) other children suffering from autism
- c) friends who do not suffer from autism
- d) normal children

**III. Indicate which option is the correct explanation of what these referential terms mean in the text**

23. “that” (line 6)

- a) the cause
- b) psychoanalytic community
- c) lack of parental nurturing
- d) none of the above

24. “this” (line 40)

- a) the sentence
- b) stimulus
- c) attention mechanism
- d) none of the above

A A genetic mutation that increases the risk of blood clotting raises the risk of sudden cardiac death in early middle age, researchers in Finland report. The variation, which makes blood stickier, was more than twice as common among men who experienced sudden cardiac death before age 55 than in men who died from other causes, according to study findings published in the August 21st issue of *Circulation: Journal of the American Heart Association*. The mutation was also more common in men who died from a heart attack or who died after a heart artery became blocked. 1 5

B Sudden cardiac death occurs when a person's heart abruptly stops functioning, and coronary artery disease--the clogging of arteries supplying the heart with blood--is the most common cause. But sudden cardiac death sometimes occurs in apparently healthy people without any symptoms of heart disease. "We have identified a new risk factor increasing markedly the risk of fatal heart attack in early middle age," the study's lead author, Dr. Jussi Mikkelsen of the University of Tampere, told Reuters Health. "Such an event is usually unexpected and occurs in an individual without previous symptoms of heart disease." In the study, the researchers reviewed the autopsies of 700 mostly middle-aged Finnish men who died suddenly outside of the hospital. They determined whether the men had a variation called HPA-2 Met, which affects blood components called platelets that are involved in blood clotting. 10 15 20

C Compared with men who died from causes unrelated to heart disease, those who died from a heart attack were twice as likely to carry the gene mutation, the report indicates. Men who died of an artery blockage called coronary thrombosis were 2.6 times more likely to have the variation. The link between the variation and heart-related death was particularly strong in men younger than 55, according to Mikkelsen's team. In younger men, the variation was 2.2 times more common in those who had experienced sudden cardiac death. Among all men younger than 55, the variation was present in about 59% who had died from a heart attack and 70% who had died from coronary thrombosis, but it was found in only about 20% of younger men who died from causes other than heart disease. 25 30

D The findings will not have an immediate effect in the clinic, but they may have an impact within the next decade, Mikkelsen noted. The Finnish researcher speculated that someday doctors may run a panel of genetic tests on patients in their 40s who have a family history of heart disease. "The results of this panel would thus make it easier to predict the risk of heart disease and guide therapeutic decisions in the primary prevention of heart disease," Mikkelsen said. 35

E Studies are under way to see whether drugs that reduce the risk of blood clots, such as aspirin, may lower the risk of heart disease in people who carry the genetic variation, the researcher pointed out. "However," he added, "it is possible that aspirin is not enough to lower the risk." Mikkelsen said that there are several drugs--both on the market and in clinical trials--that specifically target the platelet receptor affected by the gene variation. Also, he suggested, people with the variation might be able to reduce their risk of heart disease by controlling traditional risk factors for heart disease, such as smoking, diet, exercise and high blood pressure. 40 45

**TEXT 3            GENE VARIATION TIED TO EARLY SUDDEN CARDIAC DEATH**

*Mark your answers on the Answer Sheet*

**I. The text is divided into sections A, B, C, D and E. Using EACH LETTER ONLY ONCE, identify which section of the text**

- 25. presents compelling statistical evidence suggesting connection between the gene mutation and cardiac deaths.
- 26. tells the reader not to expect practical benefits from the study until after some years.
- 27. suggests that prevention is still the best bet against heart attacks.
- 28. tells us that not all people who die from heart attack have a previous history of heart disease
- 29. cites authoritative sources for the new discovery.

**II. Are these statements True (T) or False (F) according to the text?**

- 30. The genetic mutation referred to in the text destroys platelets.
- 31. It is now an established fact that aspirin can help those who are diagnosed with the gene variation.
- 32. The studies reported in the text did not involve elderly people.

**III. Indicate which option is the correct explanation of what these referential terms mean in the text**

33. *“We”*            (line12)

- a) The team of researchers who conducted the study
- b) Dr. Jussi Mikkelsen of the University of Tampere
- c) Persons with cardiac problems
- d) The Editors of Circulation: Journal of American Heart Association

34. *“They”*            (line 18)

- a) Middle-aged Finnish men
- b) The researchers
- c) The autopsies
- d) None of the above

35. *“it”*            (line 35)

- a) this panel
- b) a family history of heart disease
- c) the risk of heart disease
- d) none of the above

**TEXT 4 PSEUDOMONAS HOT-FOOT SYNDROME**

**A** People who enjoy whirlpools, hot tubs, and swimming pools 1  
sometimes develop folliculitis, an itchy rash of small bumps or  
cloudy blisters on areas of the body that were in the water. Some  
researchers describe an unusual outbreak linked to the same bacteria  
that cause hot-tub folliculitis, ——— (36) instead of an itchy rash, 5  
these young wading pool users developed very painful nodules on the  
soles of their feet.

**B** Outbreaks of hot-tub folliculitis are often attributed ——— (37)  
bacteria called *Pseudomonas aeruginosa*, which can thrive in poorly  
maintained hot tubs. The condition is generally superficial and only 10  
——— (38) results in deep, painful nodules, which were the main  
symptom of the outbreak described here. Because of the severe pain  
associated with these nodules, the authors dubbed the condition  
"pseudomonas hot-foot syndrome."

**C** At least 40 children ——— (39) in age from 2 to 15 years 15  
developed painful red nodules on the soles of their feet after using a  
community wading pool in Alberta, Canada. *P. aeruginosa* bacteria  
isolated from a nodule on one child's foot matched those found in  
water from the wading pool. Several children had a recurrence of  
their symptoms after using the wading pool again, further implicating 20  
it as the source of the outbreak. In addition to the painful foot  
nodules, a few children had fever, malaise, and nausea. All children  
recovered fully within a week or two, most without ——— (40) for  
antibiotics.

**D** Although the pool was closed and thoroughly cleaned, several  
new cases were reported after it re-opened. It was closed ——— (41) 25  
for super-chlorination and a more thorough cleaning that included the  
floor, water pipes, and inlets, and no new cases have been reported  
since the second re-opening.

**E** The bacteria involved in this outbreak have only rarely been  
reported to ——— (42) the deep, painful nodules that made it 30  
impossible for some of these children to wear shoes or even to walk.  
However, the authors are confident that the pool water was the most  
likely source of the infection and suggest that the bacteria entered the  
skin through scratches caused by the grit applied to the pool's bottom  
to ——— (43) slipping. While the pool was closed for cleaning, this 35  
surface was sanded to reduce roughness. According to the authors,  
careful attention to pool chlorine levels and thorough cleaning of  
pool floors, water pipes, and inlets should prevent outbreaks of *P.*  
*aeruginosa*-related "hot-foot" syndrome.

## TEXT 4 PSEUDOMONAS HOT-FOOT SYNDROME

Mark your answers on the Answer Sheet.

### I Choose a word from each of the following sets to fill in the numbered blank spaces in the text.

36. \_\_\_\_\_ (line 5)

- a) and
- b) so
- c) but
- d) rather

37. \_\_\_\_\_ (line 8)

- a) of
- b) from
- c) with
- d) to

38. \_\_\_\_\_ (line 11)

- a) mostly
- b) hardly
- c) rarely
- d) particularly

39. \_\_\_\_\_ (line 15)

- a) ranging
- b) living
- c) growing
- d) differing

40. \_\_\_\_\_ (line 23)

- a) asking
- b) need
- c) treating
- d) necessity

41. \_\_\_\_\_ (line 25)

- a) more
- b) also
- c) repeatedly
- d) again

42. \_\_\_\_\_ (line 30)

- a) provoke
- b) develop
- c) cause
- d) grow

43. \_\_\_\_\_ (line 35)

- a) avoid
- b) stop
- c) prevent
- d) reduce

### II. The text is divided into sections A, B, C, D, E and F. Identify which section of the text

- 44. suggests that lack of hygiene is usually responsible for the proliferation of the bacteria.
- 45. points out that the outbreak in Alberta was different from the ones usually reported in the medical literature.
- 46. presents conclusive evidence that it was in the swimming pool that bacteria thrived.

### III Are these statements True (T) or False (F) according to the text?

- 47. Folliculitis is very common among regular users of swimming pool.
- 48. Children are particularly vulnerable to water-borne diseases.
- 49. In the Alberta case, researchers have reason to suspect that the bacteria originated in the wading pool.
- 50. Sand was used on the floor of the swimming pool in order to reduce the risk of scratches on the feet of those using the pool.