

Awake!

MAY 22, 2004

Are We
Winning the
Battle Against
Disease?



Awake!

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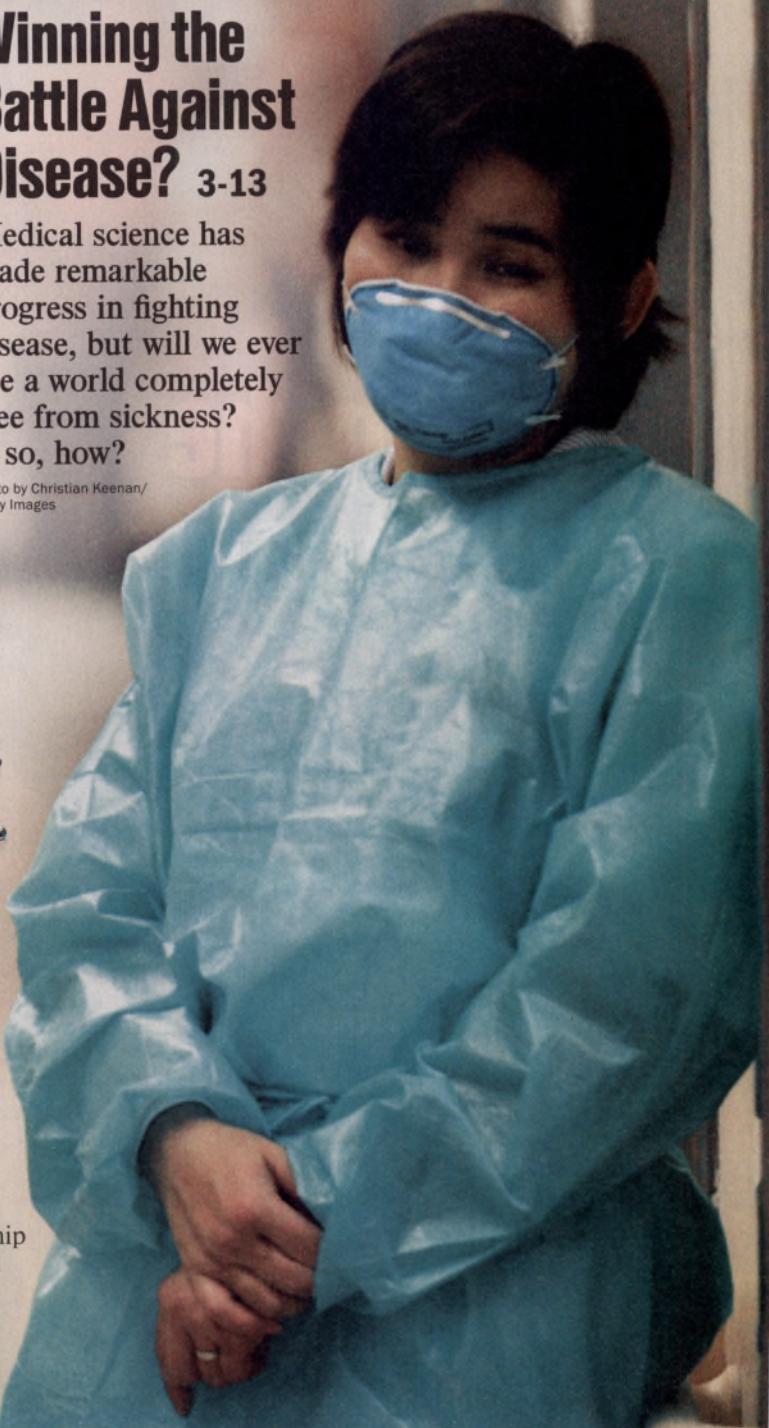
Many people find themselves in a romantic relationship marred by physical or verbal abuse.



Are We Winning the Battle Against Disease? 3-13

Medical science has made remarkable progress in fighting disease, but will we ever see a world completely free from sickness? If so, how?

Photo by Christian Keenan/
Getty Images



The Age-Old Fight for **BETTER HEALTH**

JOANNE lived in New York, and she had tuberculosis (TB). But her disease was not a typical TB case. She had a mutant strain that is resistant to practically all drugs and that kills half of its victims. Joanne, however, did not seek treatment regularly, and she had already caused at least one TB outbreak. 'She should be locked up,' said her frustrated doctor.

TB is a very old killer. Literally millions of people have suffered and died from TB. Evidence of the disease has been found in mummies from ancient Egypt and Peru. Today, resurgent strains of TB kill some two million people every year.

Carlitos, lying on a small cot in an African hut, had beads of perspiration on his forehead. Malaria had made him too weak even to cry. His anxious parents had no money for medicine, and there was no clinic nearby where they could get medical attention for their young child. The fever did not relent, and within 48 hours he was dead.

Malaria kills nearly one million children like Carlitos every year. In East African villages, the average child is bitten by malaria-carrying mosquitoes between 50 and 80 times a month. These mosquitoes are spreading to new areas, and antimalarial drugs have become less effective. Every year, an estimated 300 million people suffer from acute malaria.

Kenneth, a 30-year-old man living in San Francisco, California, first went to his doctor in 1980. He complained of diarrhea and tiredness. A year later he was dead. Despite expert medical attention, his body just wasted away, and he finally succumbed to pneumonia.



**Today, resurgent strains of tuberculosis kill
some two million people every year**

X ray: New Jersey Medical School-National Tuberculosis Center;
man: Photo: WHO/Thierry Falise

Two years later and 10,000 miles from San Francisco, a young woman in northern Tanzania began to suffer from similar symptoms. In a few weeks, she could no longer walk, and soon thereafter she died. The villagers dubbed the strange sickness Juliana's disease because a man selling cloth decorated with the name Juliana had apparently infected her and other local women.

Both Kenneth and the Tanzanian woman had the same disease: AIDS. At the beginning of the 1980's, just when it seemed that medical science had tamed the most dangerous microbes, this new infectious disease arose to haunt humanity. Within two decades the AIDS death toll began to rival that of the plague that swept across Eurasia in the 14th century—a plague that Europe never forgot.

The Black Death

The outbreak of the plague called the Black Death can be traced to 1347, when a ship

A German engraving, dating from about 1500, depicts a doctor wearing a mask to protect against the Black Death. The beak contained perfume

Godo-Foto

from the Crimea berthed in Messina, on the island of Sicily. Apart from its regular cargo, the ship also carried the plague.* Soon the Black Death spread throughout Italy.

The following year Agnolo di Tura, of Siena, Italy, described the horror in his hometown: 'The mortality in Siena began in May. It was a cruel and horrible thing. The victims died almost immediately. They died by the hundreds, both day and night.' He added: 'I buried my five children with my own hands, and so did many others likewise. Nobody wept no matter what his loss because almost everyone expected death. So many died that all believed it was the end of the world.'

Within four years, say some historians, the plague spread throughout Europe and about a third of the population lost their life—perhaps between 20 million and 30 million people. Even remote Ice-

* The plague took several forms, including bubonic plague and pneumonic plague. Fleas, carried mainly by rats, spread the bubonic form, and droplets sprayed from infected persons most often spread the pneumonic form.



The bacteria that caused the bubonic plague

© Gary Gaugler/Visuals Unlimited



land was decimated. It is said that in the Far East, the population of China slumped from 123 million at the beginning of the 13th century to 65 million during the 14th century, apparently as a result of the plague and the accompanying famine.

Awake!®

THIS JOURNAL IS PUBLISHED for the enlightenment of the entire family. It shows how to cope with today's problems. It reports the news, tells about people in many lands, examines religion and science. But it does more. It probes beneath the surface and points to the real meaning behind current events, yet it always stays politically neutral and does not exalt one race above another. Most important, this magazine builds confidence in the Creator's promise of a peaceful and secure new world that is about to replace the present wicked, lawless system of things.

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No previous epidemic, war, or famine had ever caused such widespread suffering. "It was a disaster without equal in human history," notes the book *Man and Microbes*. "Somewhere between one-quarter and one-half of the people in Europe, North Africa, and parts of Asia perished."

The Americas escaped the ravages of the Black Death, thanks to their isolation from the rest of the world. But oceangoing ships soon brought that isolation to an end. In the 16th century, a wave of epidemics that proved even more lethal than the plague ravaged the New World.

Smallpox Conquers the Americas

When Columbus arrived in the West Indies in 1492, he described the native people as being of 'pleasing appearance with fine features and medium height with muscular bodies.' Their healthy appearance, however, belied their vulnerability to the diseases of the Old World.

In 1518 an outbreak of smallpox erupted on the island of Hispaniola. Native Americans had never been exposed to smallpox before, and the effect was catastrophic. A Spanish eyewitness estimated that only a thousand people on the island survived. The epidemic soon spread to Mexico and Peru, with similar consequences.

The following century, when the Pilgrim settlers arrived in the area of Massachusetts in North America, they discovered that smallpox had practically cleared the land of

inhabitants. "The natives, they are near all dead of the smallpox," wrote Pilgrim leader John Winthrop.

Other epidemics followed smallpox. According to one source, by a century after Columbus' arrival, imported diseases had wiped out 90 percent of the population of the New World. The population of Mexico had shrunk from 30 million to 3 million, that of Peru from 8 million to one million. Native Americans, of course, were not the only victims of

Within two decades the AIDS death toll began to rival that of the plague that swept across Eurasia in the 14th century

smallpox. "Over the course of human history, smallpox claimed hundreds of millions of lives, far more than plague... and all the wars of the twentieth century combined," notes the book *Scourge—The Once and Future Threat of Smallpox*.

The War Has Not Yet Been Won

Nowadays, the horrific epidemics of plague and smallpox may seem like catastrophes long since consigned to the pages of history. During the 20th century, mankind won many battles in the war against infectious diseases, especially in industrialized countries. Doctors

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discovered the causes of most diseases, and they also found ways to cure them. (See the box below.) New vaccines and antibiotics seemed like magic bullets capable of exterminating even the most stubborn disease.

However, as Dr. Richard Krause, former director of the U.S. National Institute of Allergy and Infectious Diseases, points out, "plagues are as certain as death and taxes." TB and malaria have not gone away. And the recent AIDS pandemic has provided a grim reminder that pestilence still stalks the globe.

"Infectious diseases remain the world's leading cause of death; they will remain so for a long time to come," states the book *Man and Microbes*.

Some doctors fear that despite remarkable progress in fighting disease, the gains of the last few decades may only be temporary. "The danger posed by infectious diseases has not gone away—it's worsening," warns epidemiologist Robert Shope. The following article will explain why.

Knowledge Versus Superstition

In the 14th century, when the Black Death threatened the pope's household in Avignon, his doctor informed him that the conjunction of three planets—Saturn, Jupiter, and Mars—in the sign of Aquarius was the principal cause of the plague.

Some four centuries later, George Washington went to bed with a sore throat. Three eminent doctors treated the infection by draining some two quarts of blood from his veins. Within a few hours, the patient was dead. Bloodletting was standard medical practice for 2,500 years—from the time of Hippocrates until the mid-19th century.

Although superstition and tradition delayed medical progress, dedicated doctors worked hard to discover the causes of infectious diseases and remedies for them. Below are a few of the significant breakthroughs they made.

■ **Smallpox.** In 1798, Edward Jenner successfully developed a vaccine for smallpox. During the 20th century, vaccines have proved effective in preventing other diseases, such as polio, yellow fever, measles, and rubella.

■ **Tuberculosis.** In 1882, Robert Koch identified tuberculosis bacteria and developed a test for the disease. Some 60 years later, streptomycin, an effective antibiotic for treating tuberculosis, was discovered. This drug also proved useful for treating bubonic plague.

■ **Malaria.** From the 17th century onward, quinine—obtained from the bark of the cinchona tree—saved the lives of millions of malaria sufferers. In 1897, Ronald Ross identified *Anopheles* mosquitoes as the carriers of the disease, and mosquito control was later promoted to reduce mortality in tropical countries.

Zodiac chart (above) and bloodletting

Both: Biblioteca Histórica "Marqués de Valdeciilla"



SUCCESSES and FAILURES in Fighting Disease

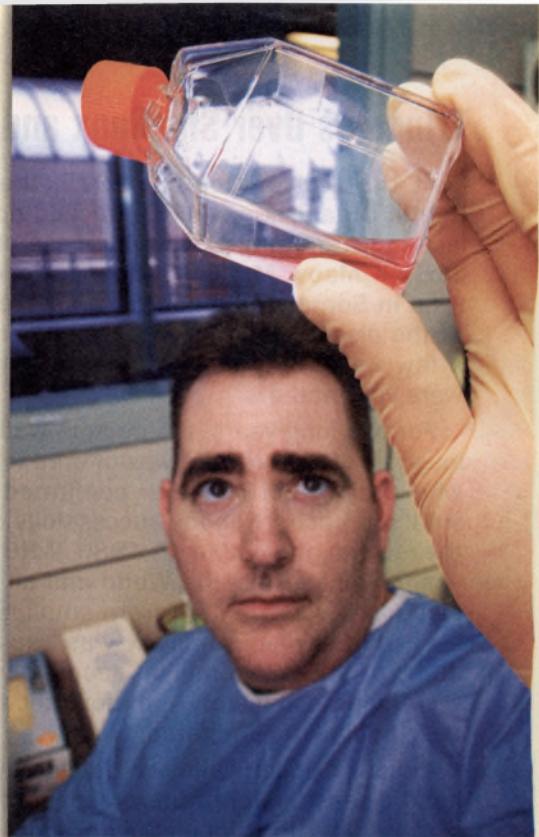
ON August 5, 1942, Dr. Alexander Fleming realized that one of his patients, a friend, was dying. The 52-year-old man had contracted spinal meningitis, and despite all of Fleming's efforts, his friend had now sunk into a coma.

Fifteen years earlier, Fleming had stumbled on a remarkable substance produced by a bluish-green mold. He called it penicillin. He noticed that it had the power to kill bacteria; but he could not isolate pure penicillin, and he tested it only as an antiseptic. In 1938, however, Howard Florey and his research team at Oxford University took up the challenge of producing a sufficient quantity of the drug for trials on humans. Fleming called up Florey, who offered to send all the penicillin he had available. It was Fleming's last chance to save his friend.

An intramuscular injection of penicillin proved insufficient, so Fleming injected the drug directly into his friend's spine. The penicillin destroyed the microbes; and in just over a week, Fleming's patient left the hospital completely cured. The era of antibiotics had dawned, and a new milestone had been reached in mankind's fight against disease.

The Age of Antibiotics

When they first appeared, antibiotics seemed like wonder drugs. Hitherto incurable infections caused by bacteria, fungi, or other microorganisms could now be treated successfully. Thanks to the new drugs, deaths from meningitis, pneumonia, and scarlet fever declined dramatically. Hospital infections that



A lab worker examines a challenging strain of virus

CDC/Anthony Sanchez

had formerly meant a death sentence were cleared up in a few days.

Since the time of Fleming, researchers have developed dozens of additional antibiotics, and the search for new ones continues. During the last 60 years, antibiotics have become an indispensable weapon in the fight against disease. If George Washington were alive today, doctors would doubtless treat his sore throat with an antibiotic, and he probably would recover in a week or so. Antibiotics have helped practically all of us shrug off one infection or another. However, it has become apparent that antibiotics do have some drawbacks.

Antibiotic treatment does not work for diseases caused by viruses,

Triumphs Over Smallpox and Polio

At the end of October 1977, the World Health Organization (WHO) tracked down the last-known naturally occurring case of smallpox. Ali Maow Maalin, a hospital cook who lived in Somalia, did not get a severe attack of the disease, and he was well again within a few weeks. All people in contact with him were vaccinated.

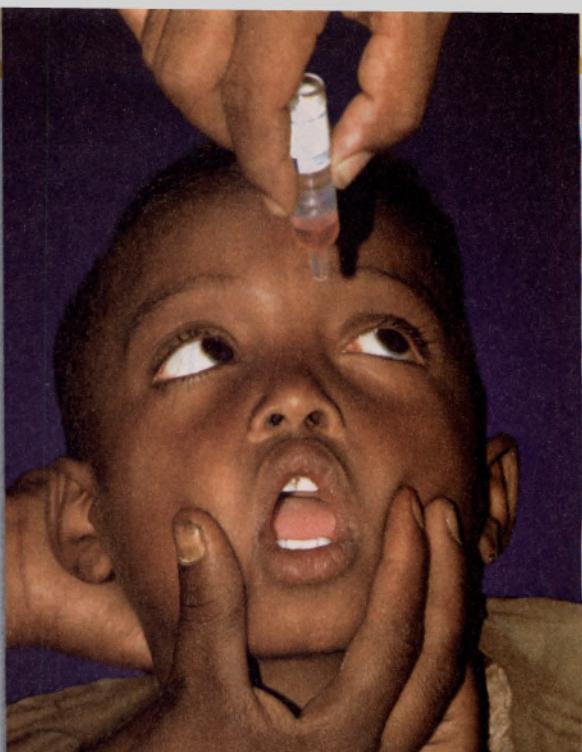
For two long years, the doctors waited anxiously. A \$1,000 reward was offered to anyone who could report another confirmed "active smallpox case." Nobody successfully claimed the reward, and on May 8, 1980, WHO formally announced that "the World and all its peoples have won freedom from smallpox." Just a decade earlier, smallpox was causing the death of about two million people a year. For the first time in history, a major infectious disease had been eliminated.*

Polio, or poliomyelitis, a debilitating childhood disease, offered the prospect of similar success. In 1955, Jonas Salk produced an effective vaccine for polio, and an immunization campaign against polio began in the United States and other countries. Later an oral vaccine was developed. In 1988, WHO launched a worldwide program to eliminate polio.

* Smallpox was the ideal disease to combat by an international vaccination campaign because, unlike diseases that are spread by troublesome vectors such as rats and insects, the smallpox virus depends on a human host for its survival.

such as AIDS or influenza. Furthermore, some people have an allergic reaction to certain antibiotics. And broad-spectrum antibiotics may kill off the helpful microorganisms in our bodies. But perhaps the greatest problem with antibiotics is their overuse or underuse.

Underuse occurs when patients do not complete the prescribed antibiotic treatment, either because they feel better or because the treatment is lengthy. As a result, the antibiotic may not kill off all the invading bacteria, allowing resistant strains to survive and multi-



© WHO/P. Vittor

An Ethiopian boy receives an oral polio vaccine

"When we began the eradication effort in 1988, polio paralysed more than 1000 children each day," reports Dr. Gro Harlem Brundtland, then director general of WHO. "In 2001, there were far fewer than 1000 cases for the entire year." Polio is now confined to fewer than ten countries, although more funds will be needed to help these lands finally eliminate the disease.

ply. This has frequently happened in the case of treatment for tuberculosis.

Both doctors and farmers have been guilty of overuse of these new drugs. "Antibiotics have often been overprescribed in the United States, and they are used even more indiscriminately in many other countries," explains the book *Man and Microbes*. "They have been fed in huge quantities to livestock, not to cure disease but to aid growth; this is a major reason for heightened microbial resistance." The result, the book warns, is that "we may be running out of new antibiotics."

But apart from these concerns about antibiotic resistance, the second half of the 20th century was a time of medical triumphs. Medical researchers seemed capable of finding drugs to fight practically any malady. And vaccines even offered the prospect of preventing disease.

Victories for Medical Science

"Immunization is the greatest public health success story in history," stated *The World Health Report 1999*. Millions of lives have already been saved, thanks to massive worldwide vaccination campaigns. A global immunization program has eliminated smallpox—the lethal disease that claimed more lives than all the wars of the 20th century combined—and a similar campaign has almost eradicated polio. (See the box "Triumphs Over Smallpox and Polio.") Many children are now vaccinated to protect them against common life-threatening diseases.

Other diseases have been tamed by less-dramatic methods. Such waterborne infections as cholera rarely cause problems where there is adequate sanitation and a safe water supply. In many lands increased access to doctors and hospital care means that most diseases can be identified and treated before they become lethal. Better diet and living conditions, along with enforcement of laws regarding proper handling and storage of food, have also contributed to improving public health.

Once scientists tracked down the causes of infectious diseases, health authorities could take practical steps to halt an epidemic in its tracks. Consider just one example. An outbreak of bubonic plague in San Francisco in 1907 killed few people because the city immediately launched a campaign to exterminate the rats whose fleas transmitted the disease. On the other hand, starting in 1896, the same disease had caused ten million deaths in India within 12 years because its underlying cause had not yet been identified.

Failures in Fighting Disease

Clearly, significant battles have been won. But some public health victories have been confined to the richer countries of the world. Treatable diseases still kill millions of people, simply for lack of sufficient funds. In developing countries many people still lack adequate sanitation, health care, and access to safe water. Fulfilling these basic needs has become more difficult on account of massive migrations of people from the countryside to the megacities of the developing world. As a result of such factors, the world's poor suffer what the World Health Organization calls a "disproportionate share of the burden of disease."

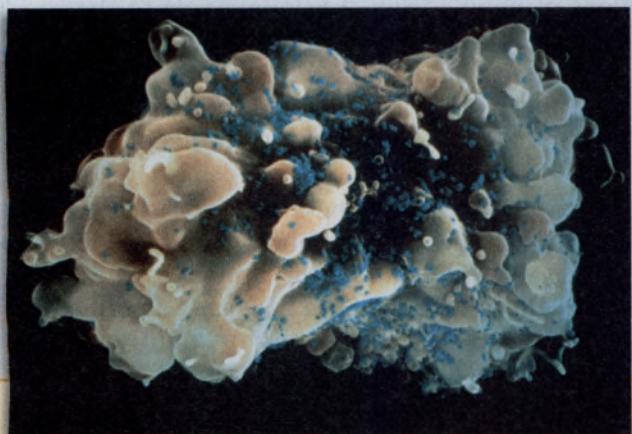
Shortsighted selfishness is the principal cause of this health imbalance. "Some of the world's worst infectious killers seem distant," states the book *Man and Microbes*. "Some of these are limited entirely or mainly to poor tropical and subtropical regions." Since wealthy developed countries and pharmaceutical companies may not benefit directly, they begrudge allocating funds for the treatment of these diseases.

Irresponsible human behavior is also a factor in spreading disease. In no way is this harsh reality better illustrated than in the case of the AIDS virus, which spreads from one person to another through body fluids. Within a few years, this pandemic has swept across the globe. (See the box "AIDS—The Scourge of Our Time.") "Human beings have done it to themselves," asserts epidemiologist Joe McCormick. "And that's not moralistic, it's just a fact."

How did humans unwittingly cooperate with the AIDS virus? The book *The Coming Plague* lists the following factors: Social changes—especially the practice of having multiple sex partners—led to a wave of sexually transmitted diseases, making it much easier for the virus to take hold and for one carrier to infect many other people. The

AIDS—The Scourge of Our Time

AIDS has emerged as a new global threat. Already, about 20 years after its identification, more than 60 million people have been infected. And health authorities warn that the AIDS pandemic is still in "an early phase." Infection rates are "climbing higher than previously believed possible," and the effects in the worst-hit areas of the world are devastating.



widespread use of contaminated, secondhand syringes for medical injections in developing countries or for illicit drug use had a similar effect. The billion-dollar global blood industry also enabled the AIDS virus to pass from one donor to dozens of recipients.

As mentioned earlier, the overuse or underuse of antibiotics has contributed to the appearance of resistant microbes. This problem is serious and is getting worse. *Staphylococcus* bacteria, which often causes wound infections, used to be eliminated easily by penicillin derivatives. But now these traditional antibiotics are often ineffective. So doctors must turn to newer, expensive antibiotics that hospitals in developing countries can rarely afford. Even the newest antibiotics may prove unable to combat some microbes, making hospital infections more common and more deadly. Dr. Richard Krause, former director of the U.S. National Institute of Aller-

"The vast majority of people living with HIV/AIDS worldwide are in the prime of their working lives," explains a United Nations report. As a result, it is believed that several countries of southern Africa will lose between 10 percent and 20 percent of their work force by the year 2005. The report also says: "The average life expectancy in sub-Saharan Africa is currently 47 years. Without AIDS, it would have been 62 years."

Efforts to find a vaccine have so far proved fruitless, and only 4 percent of the six million AIDS sufferers in the developing world receive drug therapy. At present, there is no cure for AIDS, and doctors fear that most people who are infected will eventually get the disease.

**T lymphocyte cells infected
by the HIV virus**

Godo-Foto

gy and Infectious Diseases, bluntly describes the current situation as "an epidemic of microbial resistance."

"Are We Better Off Today?"

Now, at the start of the 21st century, it is clear that the threat of disease has not disappeared. The relentless spread of AIDS, the appearance of drug-resistant pathogens, and the resurgence of age-old killers like tuberculosis and malaria show that the war on disease has not yet been won.

"Are we better off today than we were a century ago?" asked Nobel Prize winner Joshua Lederberg. "In most respects, we're worse off," he said. "We have been neglectful of the microbes, and that is a recurring theme that is coming back to haunt us." Can the present setbacks be overcome with determined effort by medical science and all nations of the world? Will the principal infectious diseases eventually be eradicated, as smallpox was? Our final article will consider these questions.

A WORLD FREE FROM DISEASE

"All countries should cooperate in a spirit of partnership and service to ensure primary health care for all people since the attainment of health by people in any one country directly concerns and benefits every other country."—ALMA-ATA DECLARATION, SEPTEMBER 12, 1978.

TWENTY-FIVE years ago, primary health care for everyone on earth seemed to some to be an attainable goal. The delegates to the International Conference on Primary Health Care, meeting in Alma-Ata, in what is now Kazakhstan, resolved to have all mankind immunized against the major infectious diseases by the year 2000. They also hoped that by that same year, basic sanitation and safe water would be available to everyone on earth. All member states of the World Health Organization (WHO) signed the declaration.

The goal was certainly praiseworthy, but the follow-up has proved disappointing. Primary health care is by no means universal, and infectious diseases still threaten the health of billions of people on earth. And these fatal maladies often strike down children as well as adults in the prime of life.

Even the triple threat of AIDS, tuberculosis, and malaria has not compelled countries to "cooperate in a spirit of partnership." The newly established Global Fund to Fight

AIDS, Tuberculosis and Malaria asked governments for \$13 billion to help curb these epidemics. By the summer of 2002, however, just over \$2 billion had been offered—in the same year, military spending reached an estimated \$700 billion! Sadly, in today's divided world, few threats are capable of uniting all nations for the common good.

Even with the best of intentions, health authorities find themselves handicapped in their fight against infectious diseases. Governments may not provide the necessary money. Microbes have become resistant to many drugs, and people may insist on pursuing a high-risk life-style. Furthermore, endemic problems such as poverty, war, and famine pave the way for pathogens successfully to invade millions of human hosts.

God's Interest in Our Health

There is a solution. We have clear evidence that Jehovah God takes a keen interest in the health of mankind. Our immune system provides striking proof of this concern. Many

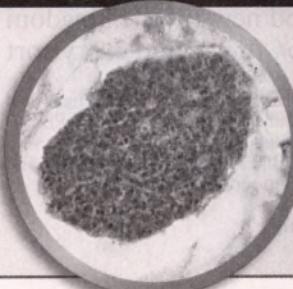
AIDS



Under God's Kingdom, diseases such as these will no longer pose a threat

AIDS: CDC; malaria: CDC/Dr. Melvin TBS: © 2003 Dennis Kunkel Microscopy, Inc.

Malaria



Tuberculosis



Deaths due to Pestilence Since 1914

These statistics are necessarily approximate. They do indicate, however, the extent to which pestilence has stalked humankind since 1914.

■ **Smallpox (between 300 million and 500 million)** No effective treatment for smallpox was ever developed. A massive international vaccination program finally succeeded in eradicating the disease by 1980.

■ **Tuberculosis (between 100 million and 150 million)** Tuberculosis now kills approximately two million people each year, and about 1 out of every 3 people in the world carries the tuberculosis bacillus.

■ **Malaria (between 80 million and 120 million)** For the first half of the 20th century, the death toll from malaria hovered at about two million a year. The greatest mortality is now centered in sub-Saharan Africa,

where malaria still kills more than one million people yearly.

■ **Spanish influenza (between 20 million and 30 million)** Some historians say that the death toll was much higher. This lethal epidemic swept the world in 1918 and 1919, close on the heels of the first world war. "Even bubonic plague did not kill so many people so fast," says the book *Man and Microbes*.

■ **Typhus (about 20 million)** Epidemics of typhus often accompanied war, and the first world war provoked a typhus plague that ravaged countries in Eastern Europe.

■ **AIDS (over 20 million)** This modern scourge is now killing three million people every year. Current estimates by the United Nations AIDS program indicate that "in the absence of drastically expanded prevention and treatment efforts, 68 million people will die . . . between 2000 and 2020."

laws that Jehovah gave to ancient Israel revealed his desire to protect them from infectious diseases.*

Jesus Christ, who reflects the personality of his heavenly Father, likewise feels compassion for the sick. The Gospel of Mark describes Jesus' encounter with a man suffering from leprosy. "If you want to," the leper said, "you can make me clean." Jesus was filled with pity when he perceived the pain and suffering the man was enduring. "I do want to," Jesus answered. "Be clean!"—Mark 1:40, 41, *Today's English Version*.

Jesus' miraculous cures were not confined to a few individuals. The Gospel writer Matthew records that Jesus "went around throughout the whole of Galilee, teaching . . . and preaching the good news of the kingdom and curing *every sort of disease* and *every sort*

of infirmity among the people." (Matthew 4: 23) His cures did not merely help the sick people of Judea and Galilee. Those healings give us a foretaste of how all kinds of disease will finally disappear when God's Kingdom, about which Jesus preached, rules unopposed over mankind.

Global Health Not an Impossible Dream

The Bible assures us that global health is not an impossible dream. The apostle John foresaw the time when the 'tent of God would be with mankind.' As a result of this action on God's part, "death will be no more, neither will mourning nor outcry nor pain be anymore. The former things have passed away." Does that seem too good to be true? In the following verse, God himself declares: "These words are faithful and true."—Revelation 21: 3-5.

Of course, the end of disease necessarily requires the end of poverty, famine, and war, since these calamities often work hand-

* The Mosaic Law contained instructions regarding waste disposal, sanitation, hygiene, and quarantine. Dr. H. O. Philips noted that "the facts of life, diagnosis, treatment, and preventive medicine as given in the Bible are far more advanced and reliable than the theories of Hippocrates."

in-hand with infectious microbes. Therefore, Jehovah assigns this huge task to his Kingdom, a heavenly government in the hands of Christ. In answer to millions of fervent prayers, this government will come, and it will ensure that God's will is done on earth.

—Matthew 6:9, 10.

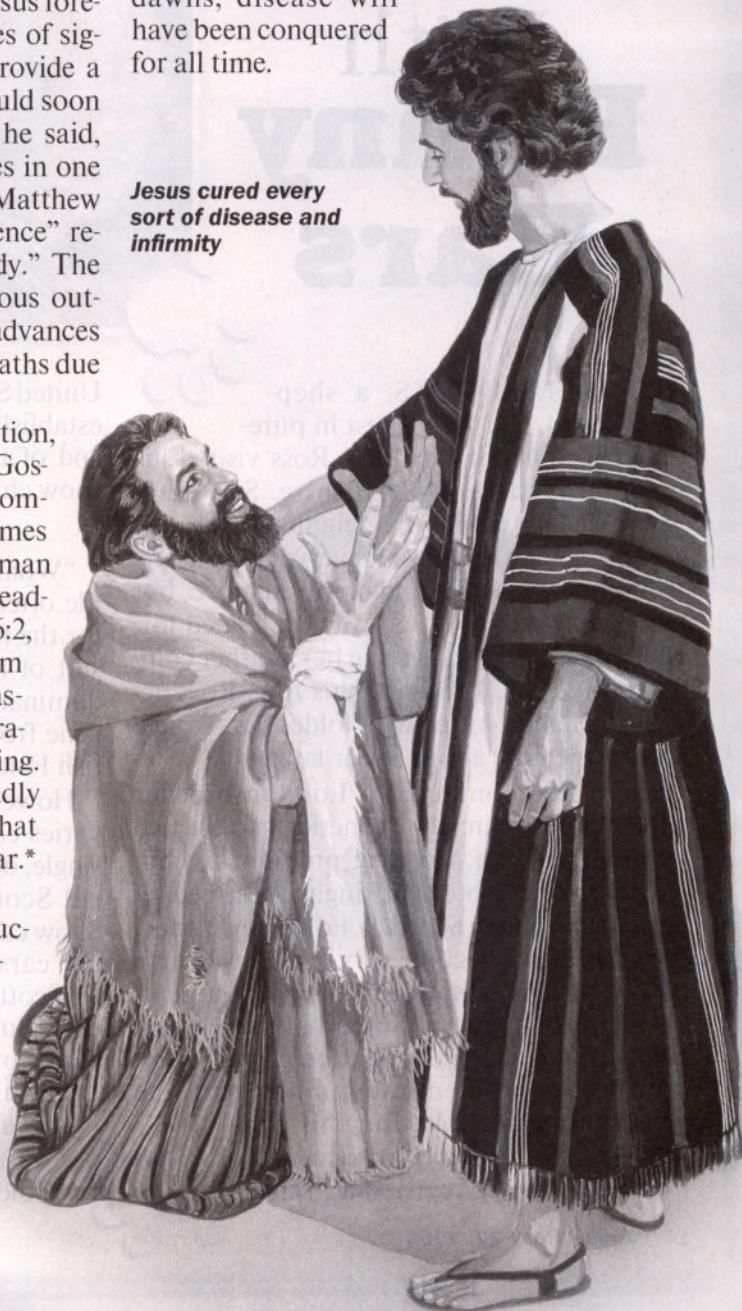
When can we expect God's Kingdom to come? In addressing that question, Jesus foretold that the world would see a series of significant developments that would provide a sign indicating that the Kingdom would soon take action. One of these features, he said, would be the outbreak of 'pestilences in one place after another.' (Luke 21:10, 11; Matthew 24:3, 7) The Greek word for "pestilence" refers to "any deadly infectious malady." The 20th century certainly saw horrendous outbreaks of pestilence, despite all the advances of medical science.—See the box "Deaths due to Pestilence Since 1914."

A prophecy in the book of Revelation, which parallels Jesus' words in the Gospels, depicts several horsemen accompanying Jesus Christ when he assumes power in heaven. The fourth horseman rides "a pale horse," and he sows "deadly plague" in his wake. (Revelation 6:2, 4, 5, 8) A look at the death toll from some of the major infectious diseases since 1914 confirms that this figurative horseman has indeed been riding. The worldwide suffering from "deadly plague" provides one further proof that the coming of God's Kingdom is near.*

—Mark 13:29.

Although medical science has succeeded in rolling back the tide of infectious disease for a few decades, a new tide begins to threaten us. Clearly, we need a superhuman so-

lution to solve this problem once and for all. Our Creator promises to do just that. The prophet Isaiah assures us that under God's Kingdom, "no resident will say: 'I am sick.'" Furthermore, "[God] will actually swallow up death forever, and the Sovereign Lord Jehovah will certainly wipe the tears from all faces." (Isaiah 25:8; 33:22, 24) When that day dawns, disease will have been conquered for all time.



Jesus cured every sort of disease and infirmity

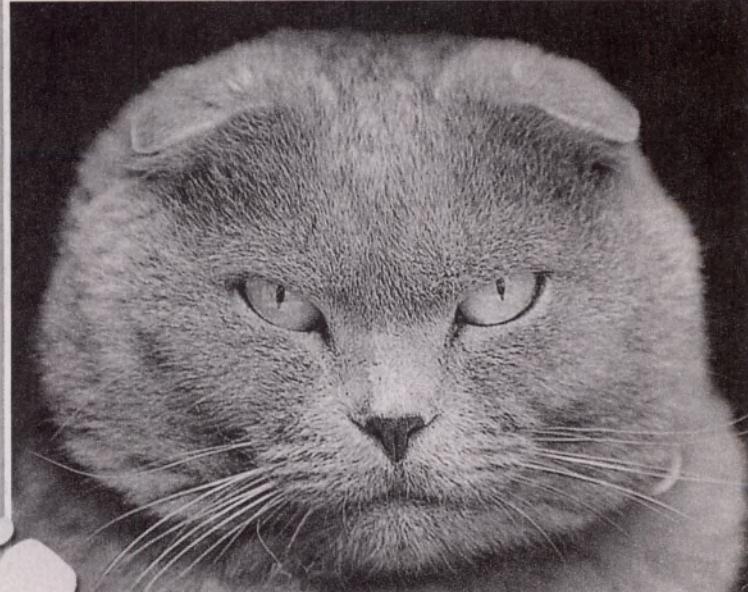
* For a consideration of additional features proving that the coming of God's Kingdom is near, see chapter 11 of the book *Knowledge That Leads to Everlasting Life*, published by Jehovah's Witnesses.



A Feline With Funny Ears

WILLIAM ROSS, a shepherd, had an interest in purebred cats. One day in 1961, Ross visited his neighbor's farm in Perthshire, Scotland. There he saw Susie, the neighbor's cat. But Susie did not look like an everyday domestic feline. She was white and of mixed breed, but her ears, from about halfway up, folded forward and downward, giving her a rather comical look. Captivated with his find, Ross acquired a female kitten with folded ears from a litter Susie bore about a year later.

Ross then contacted a London breeder with an interest in feline genetics, and the two helped initiate a breeding program for Susie's offspring. Not surprisingly, the breed received the name Scottish Fold. Since then, these cats have become very popular. British cat associations, however, have not accepted them for registry. Some have expressed concern that the cats might be prone to certain health problems stemming from the gene causing the fold. But this concern has not disqualified Scottish Folds from being registered in the



United States, where a breeding program was established in the early 1970's. Indeed, by the end of that decade, these cats had become show champions in that country.

Why the Fold in the Ears?

"What happened to your cat's ears?" people often ask when they see a Scottish Fold for the first time. The fold in the ears is a result of a mutation in what scientists call a dominant gene. Even if a kitten inherits this gene from just one parent, it will be a Scottish Fold.

However, the degree of fold in the ears varies considerably, from no fold at all to a single, double, or triple fold. Susie, the original Scottish Fold, had a loose single fold. Show cats generally have a triple fold, where the ears lay flat on the head. Interestingly, Scottish Folds are all born with straight ears. But when a litter is about three weeks of age, breeders can begin to tell which kittens will develop folded ears.

Careless breeding of Scottish Folds can invite health problems.



For example, if the male and female both have folded ears, their offspring may develop a genetic defect such as congenital osteodys trophy, which results in deformities of the bones. Hence, reputable breeders will constantly outbreed by mating Scottish Folds with other kinds of cats that have straight ears. Breeders often use British and American shorthairs in out breeding.

Another potential health concern relates to ear hygiene, especially with triple-fold cats. Because their ears fold so low to the head, they tend to become dirty inside. *The Illustrated Encyclopedia of Cat Breeds* recommends that owners gently clean "inside the folds with a moistened cotton bud [swab]." But on the positive side, healthy cats "are not particularly prone to ear infections or ear mites, as was suspected some years ago," says *The Cat Site*, an Internet Web site for cat owners.

Lovable Companions

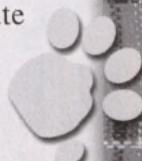
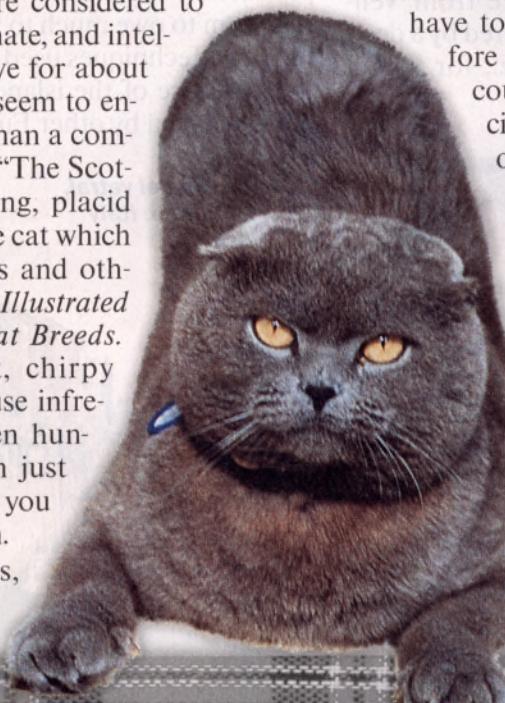
Scottish Folds are considered to be mellow, affectionate, and intelligent cats. They live for about 15 years, and they seem to enjoy nothing more than a comfortable home life. "The Scottish Fold is a loving, placid and companionable cat which loves both humans and other pets," says *The Illustrated Encyclopedia of Cat Breeds*. They have a soft, chirpy voice, which they use infrequently. Even when hungry, they will often just stand and stare at you until you feed them.

Like other cats,



Scottish Folds come in many colors and color combinations and in both longhair and shorthair varieties. But it is their folded ears, spherical head, short neck, and owllike face with big round eyes that have made them increasingly popular. In fact, Scottish Folds have become one of the most sought-after breeds in the world. Potential buyers often have to wait six months or more before a kitten becomes available. Of course, if a customer wants a specific coat length, color, or sex, he or she may have to wait longer.

When William Ross chanced upon Susie in 1961, he probably had no inkling that the descendants of this lowly barn cat would become so well accepted, especially considering that the breed's popularity lies not in some innate superiority but in a genetic mutation that is evident mainly in the ears.



A VISIT TO THE *Glass Island*

BY AWAKE! WRITER
IN ITALY

AMASTER craftsman inserts his blow-pipe into the glory hole, a small opening in the side of a roaring furnace. The sphere of molten glass he extracts glows like the setting sun. A gossamer thread flashes orange between furnace and rod and is gone. The master craftsman rolls this molten glass, called a gather, on a metal table, and the sphere becomes a cylinder. With one short breath into the hollow rod, he makes the gob swell, then rolls it again, raises it, examines it, and thrusts it back into the fire.

We are on Murano, a small island in the Lagoon of Venice, Italy. The island is famous for its glassware. In fact, glass has been blown in this region for well over 1,000 years. The remains of a glass factory on Torcello, a neighboring lagoon island, date to the seventh century C.E. Yet,

the first evidence from Venice proper is offered by a deed dated 982 C.E., for which

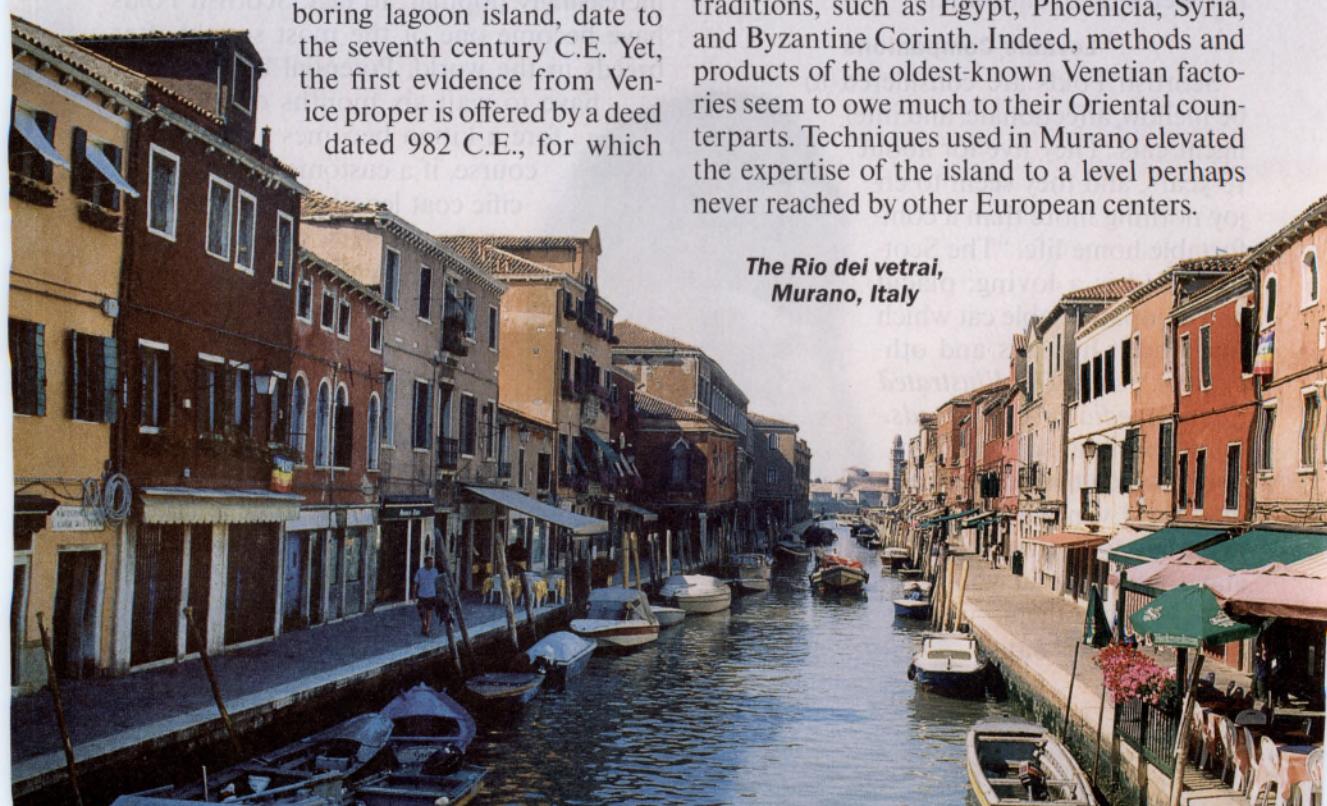
one "Domenic the glassmaker" acted as a witness.

By 1224, Venetian glassmakers had a craft guild. In 1291 the Great Council of Venice ordered the removal of glass furnaces from the city, perhaps for reasons of safety. Many were moved here, less than a mile over the lagoon, to Murano, where they have remained.

Why Famous?

Since glass has been made from antiquity in many parts of the world, what makes Murano glass, or Venetian glass, so special? It is thought that local craftsmen succeeded in refining their art to a high degree because of Venice's frequent contact with other regions that had long-standing glassblowing traditions, such as Egypt, Phoenicia, Syria, and Byzantine Corinth. Indeed, methods and products of the oldest-known Venetian factories seem to owe much to their Oriental counterparts. Techniques used in Murano elevated the expertise of the island to a level perhaps never reached by other European centers.

*The Rio dei vetrai,
Murano, Italy*



In Europe of the 13th and 14th centuries, Venice was "the only glassmaking centre capable of providing 'works of art' in blown glass," says the book *Glass in Murano*. Venetian products were exported far and wide—to the eastern Mediterranean and to Northern Europe. In 1399, King Richard II of England allowed two Venetian galleys moored in the port of London to sell glassware. In the same period, Venetian glass figured among the possessions of French nobles. In time, Murano became renowned for, among other things, mirrors, chandeliers, colored wares, gold and enamel decorations, crystal, imitation gemstones, elaborately stemmed chalices, and objects with fine patterns.

Venice, jealous of her trade secrets, strove to prevent the rise of quality competition. As early as the 13th century, glassworkers were forbidden to move away. Protective measures increased in severity, and only full citizens were permitted to work as glassmakers or apprentices. At one time, glassworkers who fled the region and were caught were subject to heavy fines and five years at the oars of a galley with their feet in irons.

Even so, glassworkers emigrated illegally to locations throughout Italy and Europe and began to compete with Murano, producing the same wares and using the same methods. In many cases it is all but impossible to distinguish their products—which came to be known as *à la façon de Venise*, or Venetian style—from those made in Murano.

Venetian artistry reached its zenith in the



The 15th-century "Barovier cup"

15th and 16th centuries. Murano, with the creative forms of its fine blown crystal, its painted enamels, its opaque *lattimo* (milk glass), and its *reticello* (lacework glass)—to name just some specialties—dominated the market and supplied the tables of kings.

Back then, says one glass-art historian, "the curious traveler who arrived at the lagoon during the period in which the furnaces were active would not miss visiting them." We do not want to miss visiting them either. So this morning we are taking a vaporetto, a canal bus, from the Grand Canal to Murano. Come along with us.

Furnaces and Showrooms

As soon as we get off the vaporetto at the first stop on Murano, people direct us to the nearest glass factories, where we can see free demonstrations of the glassmakers' art. We watch as one craftsman blows and swings a ball of molten glass into an elongated bubble at the end of his rod. Then with practiced movements of pincers and scissors, he pulls, cuts, and pinches the shapeless mass into the head, legs, and tail of a prancing stallion.

On leaving the first factory, we stroll along the quiet Rio dei vetrai, the glassmakers canal, where, as in most of Venice, the only traffic is on the sidewalks and on the water. Here we realize that Murano hosts scores of workshops and showrooms. Some display elegant, quality pieces—tea sets, lampstands, and imposing, solid sculptures—no doubt demanding considerable skill and attention to produce. Others offer



A 16th-century diamond-point engraved chalice

more affordable wares, from beads to vases and multicolored paperweights. Many are very beautiful. All are handmade.

Observing how various pieces are produced fascinates us. Murano glass—70 percent sand and 30 percent soda ash, limestone, nitrate, and arsenic—is liquid at 2,600 degrees Fahrenheit and rigid at about 900 degrees Fahrenheit. At the right temperature between these two, the glass is soft and ductile. Hence, to blow or shape a piece requires that it be repeatedly returned to the fire to renew its flexibility. Craftsmen sit at benches between horizontal arms, on which they rest and roll their blowpipes. As they turn them with one hand, the other hand holds a tool or a water-soaked pearwood form, particularly resistant to heat, to shape the gather.

We watch as one craftsman blows a bubble into a ribbed mold, has one end of the bubble cut off by an assistant, and then twirls his blowpipe about its axis to get the bubble to open, like a flower bud opening. Further heating and shaping along with the addition of a

pinched rim turn the piece into a lily-shaped lamp for a chandelier.

To add color to a clear-glass gather, the craftsman sprinkles it with fusible colored powders. Flowery effects are obtained using the *murrine* technique—the adding of coin-shaped slices of prepared glass canes that have colored patterns running through them. A cylindrical gather can be rolled in such a way as to cover its outer surface with glass canes or sections of canes laid parallel on a metal plate. When returned to the furnace, these applications—multicolored, lacy, or spiraled—fuse and are incorporated into the mass, which then can be blown into a vase, a lamp, or whatever other form is desired. Heavy-walled pieces with various layers of colored or clear glass are made by dipping the object into different melting pots.

Yes, every piece seems to have a story and a special technique behind it. Thanks to their centuries-old traditions, the glassmakers of Venice's historic island can use fire to transform sand into splendid, glittering creations.



1

1. *The glory hole*
2. *A craftsman shapes a lump of glass*
3. *The glass is reheated to renew its flexibility*
4. *Using pincers and scissors, the craftsman adds feet to a prancing stallion*
5. *The finished piece*

Photos courtesy
<http://philip.greenspun.com>



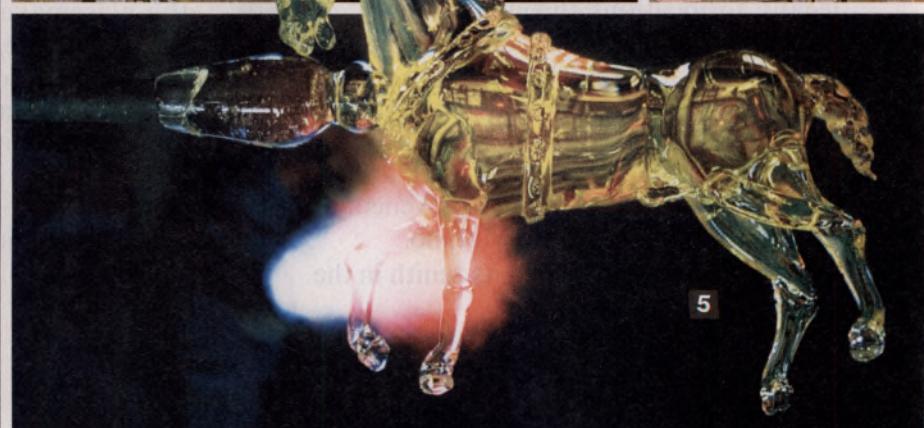
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5

Young People Ask . . .



Why Does He Treat Me So Badly?

"Often [my boyfriend] accuses me of things that are really stupid. But emotionally, I'm stuck on him."—Kathrin.*

"Outwardly you didn't see [any wounds], but inside it hurt so much."—Andrea, who was slapped by her boyfriend.

IT IS an all-too-common scenario: A young woman dates a young man who seems to be the very picture of charm and courtesy. But slowly he begins to change. Words of affection are replaced by biting sarcasm and belittling criticism. At first, she brushes it all off as clumsy but affectionate teasing. However, things escalate into a recurring pattern of verbal attacks, outbursts of anger, and expressions of deep remorse. Somehow feeling responsible for the misbehavior, the young woman suffers in silence, hoping things will change. But they do not. Her boyfriend now takes to yelling and screaming. During one fit of rage, he even gives her a violent shove! She fears that the next time he will hit her.*

* Some names have been changed.

* This article addresses victims of verbal and physical abuse. Counsel that can help perpetrators was given in the articles "From Words That Hurt to Words That Heal" and "Bullying—What's the Harm?" in our October 22, 1996, and March 22, 1997, issues.

Young men and women in romantic relationships characterized by physical or verbal abuse may be subjected to an unrelenting barrage of criticism, hurtful speech, and rage. Are you in such a situation? (See the box "Some Warning Signs.") If so, you may be so distressed and embarrassed that you simply do not know what to do.

Situations like this are not nearly as uncommon as you might think. Researchers estimate that 1 person in 5 has experienced some form of dating violence. When verbal abuse is factored in as a form of violence, this estimate rises to 4 in 5. Contrary to popular opinion, not all victims are females. According to a British study of dating violence, "almost equal percentages of men and women" reported having victimizing partners.*

* For simplicity's sake, however, we will refer to victims of abusive treatment in the feminine gender. The principles discussed herein apply to both men and women.

Why does such misbehavior occur in courtship? What should you do if you find yourself in such a situation?

Getting God's View

First, you must recognize just how serious such a situation is in God's eyes. It is true that imperfect people are bound to say and do things that hurt others. (James 3:2) It is also true that even people who love and trust each other will occasionally have disagreements. The apostle Paul and Barnabas, for example, were mature Christians. Yet, on one occasion they had "a sharp burst of anger." (Acts 15:39) So if you are dating someone, you may experience some tensions from time to time.

Furthermore, it would be unrealistic to expect that your boyfriend will never utter a critical word. After all, you are contemplating marrying each other. And if he is disturbed by some trait or habit of yours, wouldn't it be loving for him to talk to you about it? True, criticism is painful. (Hebrews 12:11) But if it is motivated by and given in love, it is not a form of abusive speech.—Proverbs 27:6.

It is another thing entirely, though, to engage in yelling, slapping, punching, or reviling. The Bible condemns "wrath, anger, badness, abusive speech." (Colossians 3:8) Jehovah is outraged when someone uses "power" to humiliate, intimidate, or oppress others. (Ecclesiastes 4:1; 8:9) In fact, God's Word commands husbands "to be loving their wives as their own bodies . . . , for no man ever hated his own flesh; but he feeds and cherishes it." (Ephesians 5:28, 29) A man who speaks abusively to or mistreats the woman he is

courting shows himself unfit to be a marriage mate. At the same time, he arouses the displeasure of Jehovah God himself!

It's Not Your Fault!

Yet, abusers often blame their victims. So perhaps you sometimes feel it is your fault that your boyfriend becomes so angry. But his anger may have little or nothing to do with you. Often abusive men have been raised in households where the use of violence or abusive speech was considered normal.* In some lands young men are influenced by the prevailing culture in which men are expected to be dominant. Peers can also put pressure on a young man to be macho. Lacking self-confidence, he might feel threatened by just about anything that you say or do.

Whatever the situation, you are not responsible for another person's outbursts. Abusive speech and violence are *never* justified.

Changing Your Thinking

Even so, your own view of matters may need to be adjusted. How so? Well, if a girl has been raised in an atmosphere of violence and injurious talk herself, abusive behavior might seem normal to her. Instead of recoiling at such unchristian conduct, she might tolerate it—perhaps even find it attractive. Yes, some victims of mistreatment admit that they are bored with men who are too nice. Other young women suffer from the illusion that they can change their boyfriend.

If any of this is true of you, you need to "be transformed by making your mind over" in

* See the article "Uncovering the Roots of Abusive Speech," in our October 22, 1996, issue.

Constant criticism or insults may indicate that a relationship is unhealthy



Some Warning Signs

- He often makes demeaning remarks about you, your family, or your friends, either when you are alone or when you are with others
- He usually ignores your wishes or feelings
- He tries to control every aspect of your life, insisting on knowing your whereabouts at all times and making all decisions for you
- He yells at you, pushes or shoves you, or threatens you
- He tries to talk you into making inappropriate expressions of affection
- You can hardly do anything without worrying whether it might in some way irritate him

this regard. (Romans 12:2) By prayer, study, and meditation, you need to take Jehovah's view of the abusive conduct to heart and see it as repulsive. You need to grasp that you do not deserve to be mistreated. Cultivating modesty—a sense of your limitations—can help you to realize that you do not have the ability to change an angry boyfriend. It is *his* responsibility to change!—Galatians 6:5.

In some cases young women endure mistreatment because of a low sense of self-worth. Says Kathrin, mentioned at the outset, "I cannot imagine life without him, and I cannot imagine getting someone better." A young woman named Helga similarly said of her boyfriend, "I let him beat me because it's still better than not being noticed at all."

Do such viewpoints sound like a good foundation for a healthy relationship? After all, can you really love someone if you cannot even love yourself? (Matthew 19:19) Work on developing healthy self-respect.* Enduring mistreatment will not help you to do that. As a young woman named Irena knows from experience, enduring abuse can "rob you of all your self-esteem."

Facing the Truth

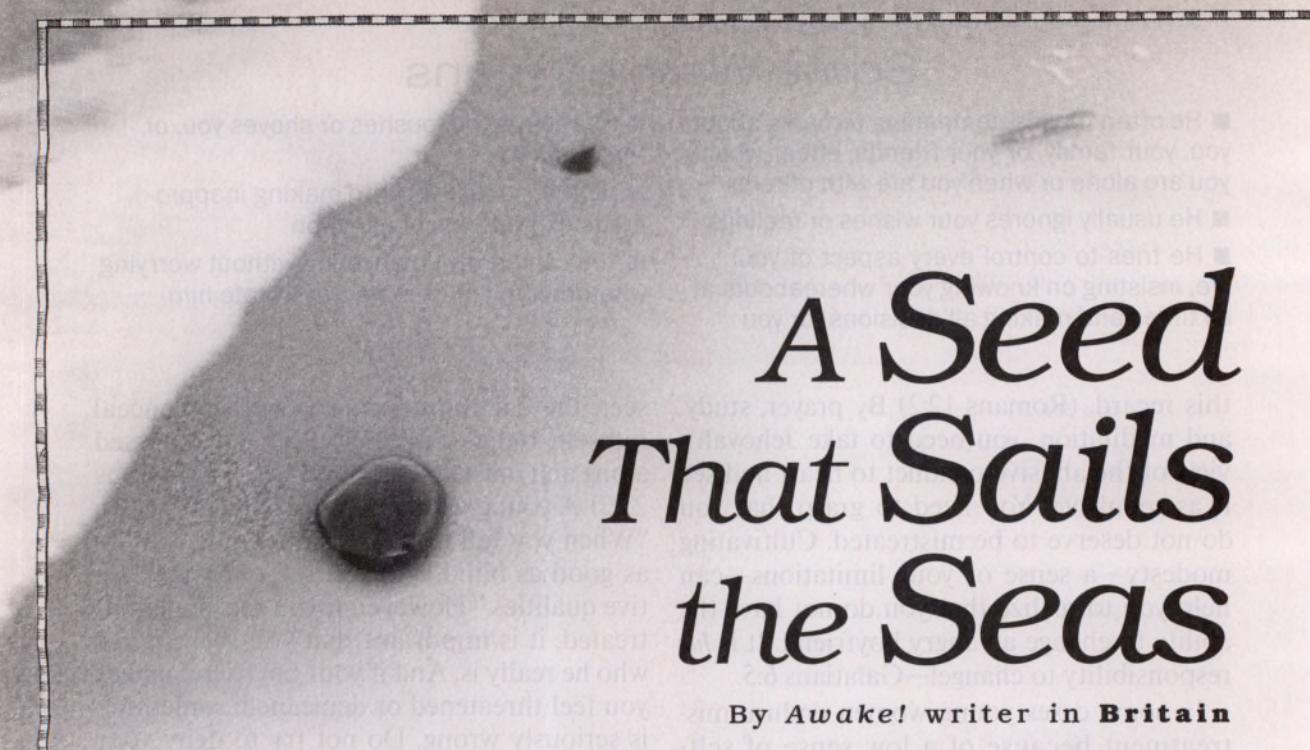
It may be hard for some to admit that they are in an unhealthy relationship—especially if strong romantic feelings have developed. But do not shut your eyes to the truth. A Bible proverb says: "Shrewd is the one that has

seen the calamity and proceeds to conceal himself, but the inexperienced have passed along and must suffer the penalty." (Proverbs 22:3) A young woman named Hanna recalls, "When you fall in love with the guy, you are as good as blind, and you see only his positive qualities." However, if you are being mistreated, it is important that you see him for who he really is. And if your boyfriend makes you feel threatened or demeaned, something is seriously wrong. Do not try to deny your feelings, excuse him, or blame yourself. Experience shows that left unchecked, abusive treatment will only escalate. Your well-being could be seriously endangered!

Of course, it would be best not to get involved with someone lacking self-control. (Proverbs 22:24) So if someone you do not know well wants to date you, it is a good idea to find out something about him. Why not suggest that you first associate with each other in a group setting? This can allow you to get to know him without getting romantically involved too quickly. Ask meaningful questions, such as: Who are his friends? What type of music, films, computer games, and sports does he like? Does his conversation indicate an interest in spiritual things? Talk to people who know him, such as his local congregation elders. They will let you know if he is "well reported on" by others because of his mature and godly conduct.—Acts 16:2.

But what can you do if you are already involved in an abusive relationship? A future article will address this question.

* See chapter 12 of the book *Questions Young People Ask—Answers That Work*, published by Jehovah's Witnesses.



A Seed That Sails the Seas

By Awake! writer in Britain

I WAS walking along a sandy beach strewn with seaweed and driftwood on England's east coast when an unusual pebble caught my eye. I picked it up. It was smooth and chestnut brown—but this was not a pebble! What was it? A tropical drift seed, commonly called a sea bean. How did it get there?

Sea Bean Origins

This bean is, in fact, a seed produced by a giant legume, called a liana. *The Concise Oxford Dictionary* defines "liana" as "a woody climbing plant that hangs from trees, especially in tropical rainforests." It uses its tendrils to climb up its host tree—sometimes as high as 100 feet above the forest floor. This plant is widely distributed along coasts and rivers in central and western Africa, Colombia, the West Indies, and Central America. In Costa Rica, where arboreal monkeys use it to travel from treetop to treetop, it is known as the monkey ladder.

Measuring up to two and a half inches across, the seed starts its life in a huge pod

hanging from its support tree. This large seedpod can grow up to six feet in length. It is made up of rounded segments containing one seed each. These are separated by a thin groove. As with many common beans, when the seedpod first forms, it is soft and green. But as it ripens, the pod hardens, becoming dry and heavy. It also turns brown and begins to look woody.

Eventually, because of its increased weight, the seedpod drops off into the river or sea. As the pod floats away, its individual sections break off. Now each seed with its protective casing starts its own journey. Some seeds may get bogged down and grow in the mud along a riverbank. Many, however, will float downriver, sometimes traveling hundreds of miles to an estuary. If a seed journeys through groups of islands, a tide may catch it and wash it onto a nearby beach.

A World Traveler

What happens to a seed that ventures out to sea? Its protective casing gradually wears

away, and the seed falls out. Does it then sink? No, because it is impervious to water. It gets its buoyancy from an internal air cavity caused by the shrinkage of the cotyledon, an embryonic leaf inside the seed. With such a marvelous survival package, this seed, or sea heart—as it is sometimes called on account of its unusual heart shape—can travel unharmed in the sea for months, even years, before being cast onto a distant beach.

How does the seed manage to reach such faraway places as the British Isles, Scandinavia, and other parts of Western Europe? For centuries these seeds have been using the Gulf Stream to hitch a ride across the Atlantic. In fact, millions of these seeds are constantly sailing the ocean currents around our globe!

Is our seed still viable after such a long and perilous journey? Well, try nicking its outer coat with a file or a saw, preferably near the hilum, the scar on the seed marking the point of attachment to its seed vessel. Then plant the seed in soil in a pot, water it, and leave it in a warm sunny place. It will likely sprout.

What, though, usually happens to a seed that is washed up onto beaches in the much colder European climates that are not ideal for natural germination? A finder may keep it as a souvenir, but many seeds are collected and sold as novelties, sometimes combined with shells or beads to make attractive necklaces. Those with the best heart shape are highly prized by collectors.

Northern Europeans use sea hearts—and the more rectangular seed of a closely related



Necklaces made with sea beans

The hanging pod of the sea bean can grow up to six feet long

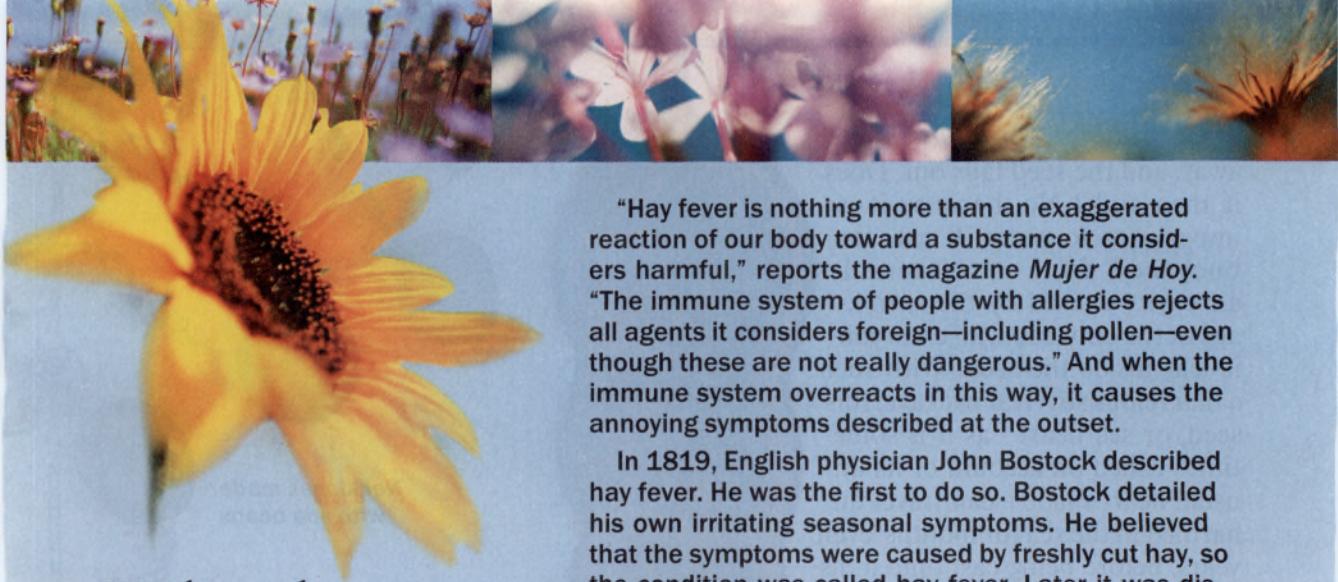
Courtesy Jean-Jacques Segalen/
Barbadine.com

species—to make snuffboxes, matchboxes, and lockets. In England such seeds have been used as teething rings for babies. Sailors often use the seeds as good-luck charms, reasoning that if the seeds could survive such long and perilous journeys across the oceans, they could likewise protect their owners.

So when you next take a walk along a beach, search carefully among the seaweed and driftwood. You too may find a seed that has sailed the seas.

In Our Next Issue

- **Alone but Not Lonely**
- **Does Anxiety Indicate a Lack of Faith?**
- **Tires—Your Life Could Depend on Them!**



Why do so many suffer from hay fever?

By *Awake!* writer in Spain

YOUR eyes are itching and watering, you sneeze all day, your nose keeps dripping, and you have difficulty breathing. What is happening? You might have a cold. But if these symptoms afflict you when you are around pollen, you may well be suffering from hay fever. If so, you have plenty of company. The number of people whose condition is diagnosed as hay fever keeps rising every year.

"Hay fever is nothing more than an exaggerated reaction of our body toward a substance it considers harmful," reports the magazine *Mujer de Hoy*. "The immune system of people with allergies rejects all agents it considers foreign—including pollen—even though these are not really dangerous." And when the immune system overreacts in this way, it causes the annoying symptoms described at the outset.

In 1819, English physician John Bostock described hay fever. He was the first to do so. Bostock detailed his own irritating seasonal symptoms. He believed that the symptoms were caused by freshly cut hay, so the condition was called hay fever. Later it was discovered that the agents that provoke the allergic reaction are actually many different kinds of pollen. At the beginning of the 19th century, Bostock found very few cases throughout all of England.

Why, though, are there so many hay-fever sufferers today? Dr. Javier Subiza, director of the Center for Asthma and Allergies in Madrid, Spain, mentions two theories researchers are investigating. One theory puts the blame on diesel engines. It is thought that the particles coming from the combustion of diesel fuel can stimulate the action of allergens, agents that trigger an allergic reaction. According to allergist Dr. Juan Kothny Pommer, "in industrialized countries hay fever affects as much as 20 percent of the population, being more frequent in the cities."

A second theory suggests that the cause is simply too much hygiene. 'We are born in an operating room, we consume sterile food, we get inoculated against many diseases, and we immediately take antibiotics if we get ill. Thus, from childhood our immune system is conditioned to develop allergies,' explains Dr. Subiza.

If you are a victim of this immunological over-reaction, do not despair! With the right diagnosis and treatment, it is possible to control and reduce both the frequency and intensity of hay fever's irritating symptoms.

A New Face for Mailyn

AS TOLD BY MAILYN'S MOTHER

Why did Mailyn, my lovely 11-year-old daughter, need a new face? Let me explain.

Mailyn is the second of my two daughters. She was born in Holguín, Cuba, on August 5, 1992. Her father, her sister, and I were very happy about her arrival. But our happiness was soon interrupted. A few days after her birth, I came down with chicken pox, and a month later, Mailyn caught it.

At first, her condition did not seem to be too serious; but it got worse, and she had to be hospitalized. Mailyn received good medical attention, but her immune system had been weakened to such an extent that she contracted an infection. I noticed a strange reddening on one side of her little nose. The doctors identified the cause as a rare, very aggressive type of bacterium.

In spite of the antibiotics that were immediately administered, in a matter of days, the bacteria began to destroy her face. By the time the doctors were able to contain it, Mailyn had almost completely lost her nose, lips, and parts of her gum and chin. She also had perforations at the side of one eye.

When my husband and I saw her, we broke down in tears. How could something like this happen to our little girl? Mailyn was in intensive care for several days, and the doctors thought that she would not survive. My husband kept telling me, "Get ready for the worst." However, when I put my hand into the incubator to take Mailyn's little hand, she would grip mine so strongly that I knew

she was going to survive. I told my husband: "Our daughter is not going to die. But in her condition, what kind of life will Mailyn lead?" Each morning when we awoke, we thought that perhaps it was all just a nightmare.

While we were at the hospital, our older daughter, Maydelis, who was then six years old, stayed with my parents. She was anxiously waiting for her little sister to come back home. She had seen Mailyn leave the house as a beautiful "doll" with large blue eyes. But when Maydelis next saw her baby sister, Mailyn looked monstrous.

'Why Does My Baby Have to Suffer So Much?'

After a month and a half in the hospital, Mailyn was released. We did not return to our home in the city because we did not want anyone to see her. We isolated ourselves in a cottage in the countryside, next to my parents' farm.

In the beginning, I was able to give Mailyn breast milk in small amounts through the opening in her face where her mouth had been. She could not suck. However, when the lesions began to heal, that opening almost closed. I could only give her liquefied foods in a bottle. When she was a year old, we returned to Holguín, where the doctors performed four operations to widen the opening.

I would ask myself, 'Why does my baby have to suffer so much?' I sought the answer in spiritistic centers and prayed to my religious images. But nothing gave me any comfort. The painful remarks of some relatives and friends confused me even more. Some said, "God knows why he allows these things." Others told me, "Surely, it is a punishment from God." I also worried a lot about what I would say to Mailyn when she grew older. Once, while she was yet very small, Mailyn asked her father, "Why don't I have a nose like everyone else?" Her father could not answer and went outside to cry. I tried to explain to her what had happened. She still remembers that I used to say that a little bug had eaten her nose and mouth.

A Basis for Hope

Just when I was feeling the most frustrated, I remembered that my neighbor was one of Jehovah's Witnesses. I asked her to show me from the Bible why God permitted my little daughter to suffer so much. I also asked, "If this illness is really a punishment from God for something I have done, why does Mailyn have to pay for it?"

My neighbor began to study the Bible with me, using the book *You Can Live Forever in Paradise on Earth.** Little by little, I began to understand that God is not to blame for what happened to Mailyn and that he truly cares for us. (James 1:13; 1 Peter 5:7) I began to appreciate the marvelous hope that under the rule of his heavenly Kingdom in the hands of Jesus Christ, suffering will be eliminated. (Matthew 6:9, 10; Revelation 21:3, 4) This knowledge strengthened me and moved me to

attend the Christian meetings of Jehovah's Witnesses. At first, my husband did not like my new spiritual inclination. However, he did not stop me from studying the Bible, as long as it helped me to cope with our tragedy.

Help From Abroad

When Mailyn was two years old, an eminent plastic surgeon in Mexico learned about her case and offered to treat her free of charge. The first operations were performed in 1994. Mailyn and I stayed in Mexico for almost a year. In the beginning we were not able to contact Jehovah's Witnesses, so we could not attend Christian meetings. This weakened me spiritually. Then, one of

"Jehovah is going to give me a new face in the new world"



* Published by Jehovah's Witnesses.

the local Witnesses contacted us, and we began to associate again with fellow believers as often as possible. Upon returning to Cuba, I resumed my Bible study and recovered spiritually.

At that time my husband was still not interested in the Bible. In an effort to arouse his interest, I began to ask him to read me some parts of Bible-based publications so that I could understand them better. Eventually

Little by little, I began to understand that God is not to blame

he was moved to accept a Bible study, for he was concerned that the repeated lengthy trips to Mexico might damage our family relationship. He thought that being united spiritually would help us to bear these periods of separation better. And it did. My husband, my oldest daughter, and I were baptized as Jehovah's Witnesses in 1997.

During our first few stays in Mexico, Mailyn would say that if the little bug had not eaten her face, we would not have to be separated from her daddy and her sister. It was heartrending to have to separate the family for such long periods of time. However, I remember one particular visit to the branch office of Jehovah's Witnesses in Mexico, called Bethel, that greatly lifted our spirits. Mailyn had been saying that she did not want to be operated on again—for the fifth time during that stay—because the healing process was so painful. But some Witnesses who were serving at the branch office told her that if she was brave and allowed the doctors to operate, they would have a party for her when she got out of the hospital. So she agreed to the operation.

Let Mailyn describe her feelings: "I was thrilled about the idea of having a party at Bethel. So I was very brave during surgery. The party was exciting, with so many spiritual brothers and sisters. They gave me many cards, which I still have. The encouragement that I received gave me the strength to endure the next operations."

Progress and Help to Endure

Mailyn, now 11 years old, has undergone 20 surgeries to reconstruct her face. Although she has been helped greatly, it is still impossible for her to open her mouth completely. However, she has always had a courageous, positive attitude. She has also shown much appreciation for spiritual things. Since the age of six, she has been enrolled in the Theocratic Ministry School at our local congregation, and she was baptized on April 27, 2003. She has conducted as many as three Bible studies at a time. Once, while in Mexico, she spoke to a gentleman who agreed to have her study the Bible with him. Mailyn invited him to the Memorial of Christ's death and to other congregation meetings, which he attended with much interest.

When Mailyn preaches from house to house, some people look at her face and ask her if she got burned. Mailyn takes advantage of the opportunity to share her Bible-based hope that Jehovah will give her a new face in the coming Paradise.—Luke 23:43.

The pain that Mailyn has suffered from the operations and from the mockery of other children is indescribable. What has helped her to endure? Mailyn answers with assurance: "Jehovah is very real to me. He gives me the strength and courage to bear up. I don't want any more operations because the doctors can't do much for me now. They will never be able to make me like I was when I was born. But I know that Jehovah is going to give me a new face in the new world and that I will be pretty again."

Watching the World

Is Squeaky Clean Too Clean?

Taking a long, hot shower or bath at the end of the day is a ritual many people enjoy. However, "meticulous cleansing could be causing many skin problems," warns the Australian newspaper *The Daily Telegraph*. "People are showering too often for too long and using the wrong types of products on their skin." Explains dermatologist Dr. Megan Andrews: "We all like to feel squeaky clean but in fact, feeling squeaky clean means the skin has been damaged . . . People are feeling good but doing harm." Why? Because overly zealous washing habits will leave your skin "stripped of natural oils, its protective barrier of micro-organisms in disarray and the body's largest organ prone to tiny cracks and scarring," says the paper, noting that dry winter weather "is a time of particular concern." Andrews recommends taking no more than one brief shower a day.

The Physics of Traffic Jams

Have you ever wondered why after being in stop-and-go traffic for some time, you can suddenly drive at normal speed without seeing a reason for the delay? "There are empirical causes for such miseries as traffic slow-

Disastrous Advice

"Until the 1970s most villages in Bangladesh and West Bengal [India] had either dug shallow wells, or collected water from ponds or rivers—and regularly suffered cholera, dysentery and other water-borne diseases," states *The Guardian Weekly*. "Then the UN advised people to bore deep 'tube wells' into the water aquifers (bodies of highly porous and permeable water-bearing rock) for clean, pathogen-free water." Up to 20 million tube wells were dug in Bangladesh, Vietnam, Laos, Burma (now Myanmar), Thailand, Nepal, China, Pakistan, Cambodia, and West Bengal, India. However, many of the wells ended in arsenic-bearing sediments that lie deep beneath the surface. The result has been arsenic poisoning on a scale that the World Health Organization calls "the world's largest mass poisoning of a population in history." About 150 million people have been drinking the con-

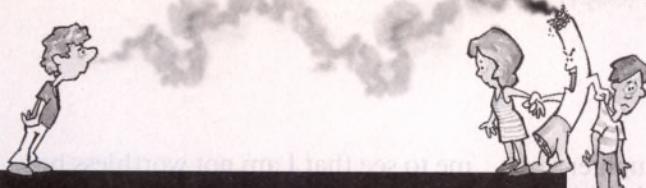
taminated water during the past two decades. Serious cases of arsenic poisoning number 15,000 in Bangladesh alone. Local groups, governments, and the UN have been considering the options, but a workable strategy to remedy the situation has yet to be found.

Child Suicide Alert

"Eighty percent of the children who attempt or commit suicide announce it verbally or in writing days or months in advance," reports the newspaper *Milenio* of Mexico City. The main reasons why minors lose their desire to live are mistreatment (physical, emotional, or verbal), sexual abuse, family disintegration, and school-related problems. According to José Luis Vázquez, a psychiatric specialist at the Mexican Institute of Social Security, death has become such an everyday thing on television and in movies, video games, and books that children have formed a mistaken idea about the value of life. He adds that 15 of every

ing to a crawl even when there is no accident or rough pavement in sight," notes *The Wall Street Journal*. "Cars behave much as molecules in a gas." Even a brief slowing down produces "a compression wave" that works its way backward, causing cars far behind to slow





Early Nicotine Addiction

"The first puff on a cigarette could be enough to hook a young teenager into addiction," reports Canada's *National Post* newspaper. "The extraordinary findings upend the prevailing view about nicotine addiction being a slowly acquired process that occurs only after several years of heavy smoking." In a study of 1,200 teenagers over approximately six years, researchers found that "physical addiction is a much stronger force than peer pressure, even among those who smoked only rarely," the paper said. According to the study, "nicotine dependence symptoms appear in many young tobacco users between the first exposure to nicotine and the onset of daily smoking." The researchers say that antismoking campaigns should be adapted not only to help youths resist the pressure to smoke but also to help those who have smoked to overcome nicotine dependence.

100 children between the ages of eight and ten have suicidal thoughts and that of those, 5 percent succeed in taking their life. The newspaper recommends paying heed when children mention suicide, instead of just brushing it off as a matter of blackmail or an attempt to get attention. It adds: "Parents should be with and play with their children, never lose communication, and always show them love."

to a crawl. "By one estimate, three-quarters of traffic jams have no visible culprit," says the paper. "The cause came and went hours ago, but its effects linger." Changing routes to avoid jams may work when a city is relatively empty. But as the streets fill up and other drivers are

Rage Is Bad for You

According to Valentina D'Urso, a psychology teacher at Padua University in Italy, "rage is an ever-increasing phenomenon in our society, but it produces negative effects on the organism." Muscles tense, heartbeat and breathing speed up, and the body enters into a state of stress. Anger can also impair a person's ability to reason and can lessen his control

doing the same, "you have no better chance of finding the fast road than of choosing the fastest line at the grocery checkout," the article says. "Laid-back drivers actually fare better than drivers intently seeking out the fastest route."

over his actions. "Let's get used to foreseeing risk situations . . . Let's calmly say straight away 'I don't agree,' and we will live much better," suggests D'Urso.

Doctors Under Stress

The Canadian Medical Association recently surveyed 2,251 doctors across the country and "found that 45.7 per cent were in an advanced phase of burnout, characterized by emotional exhaustion, cynicism and feelings of ineffectiveness in their work," says the *Vancouver Sun* newspaper. According to Dr. Paul Farnan, coordinator of the British Columbia Physician Support Program, factors that contribute to stress for many doctors include the difficulty they have in finding replacements to fill in when they want to take a vacation, an overly demanding on-call schedule, and overwhelming paperwork. Dr. Farnan encourages doctors who are stressed to find balance in their lives by spending time with their families and to involve themselves with activities that provide emotional and spiritual fulfillment.



From Our Readers

Bullying Last night my seven-year-old daughter said that she didn't want to go back to school because of two girls who always picked on her. I started reading the series "Bullying—What Can You Do About It?" (August 22, 2003). These articles have helped me—not only in assisting my daughter but also in understanding why people may act a certain way.

L. H., United States



until I quit. I still have deep emotional scars from that experience. However, having read the articles, I feel better, knowing that someone understands.

H. N., Japan

Reading these articles was like looking at my past. When I was a student, I was bullied every day. I wondered why. This series helped me to understand, and I gained comfort from it.

M. M., Japan

I was treated as an outcast at school, and my self-confidence was greatly affected. I was taught to laugh in the face of my tormentors, but you are right in saying that it is better to look them in the eye and calmly explain that it is not funny.

M. G., France

I have to admit that it was a real struggle for me to read the articles on bullying because I have been the victim of physical, verbal, and indirect bullying in my adolescence and adult life. After reading the articles, I now understand why I have experienced negative thoughts and lack of self-respect. So I want to express my gratitude for these articles, which provided practical and soothing advice.

A. M., Italy

Bullying is a problem I have struggled with every day since I started high school. These articles helped

me to see that I am not worthless because I belong to a minority religion. As time goes by, I am becoming ever prouder of being one of Jehovah's Witnesses, and I am happy if I have to suffer because of it. I used to react with anger. Now I know what to do, and I am sure things will improve.

M. S., Italy

My twin sister and I are 16 years old, and we are in the same class in school. Our classmates know that we are Jehovah's Witnesses, and they often attack us. The subject of bullying was presented very realistically, and this greatly encouraged us.

E. P., Italy

I burst into tears when I read the articles, for I recalled everything that my former schoolmates had inflicted upon me day after day for six years. As a youth, I always thought that I was the only one who suffered such things. I didn't even know that this psychological terror was called bullying. Now that I'm a young woman, I'm all the more grateful to be informed about this problem. I feel understood at last!

A. P., Germany

I have suffered so many difficulties in school that sometimes I don't want to go there. These articles, however, helped me to reevaluate my situation, and they gave some good counsel. I'm using some of the suggestions mentioned, and they've already helped. Thanks for such encouraging and helpful articles.

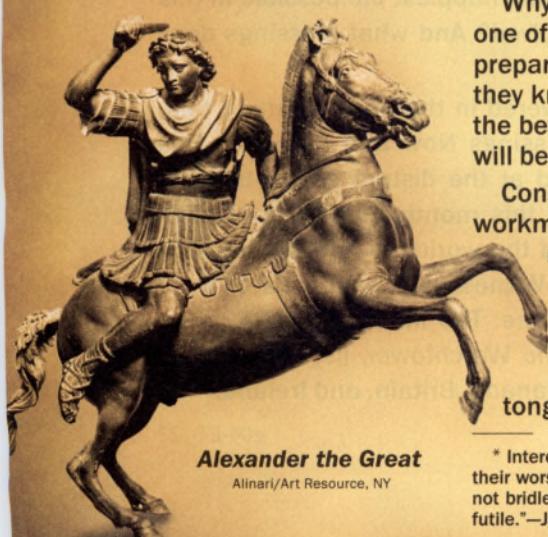
M. T., Russia

BRIDLING THE HORSE AND THE TONGUE



"The horse is something prepared for the day of battle," said wise King Solomon of ancient Israel. (*Proverbs 21:31*) Mounted troops have long played a vital role in winning battles. From ancient times armies have used the bridle to control the spirit and strength of the horse.

The bridle, explains the *Encyclopædia Britannica*, "is a set of straps that makes the bit secure in the animal's mouth and thus ensures human control by means of the reins." Ancient bridles do not differ very much from modern ones, and they proved invaluable for taming and riding horses.



Solomon's father, King David, alluded to the importance of the bridle when he wrote: "Do not make yourselves like a horse or mule without understanding, whose spiritedness is to be curbed even by bridle or halter." (*Psalm 32:9*) Once a horse was tamed, it could become a faithful companion. Alexander the Great so appreciated his mount Bucephalus that he named a city in India in the horse's honor.

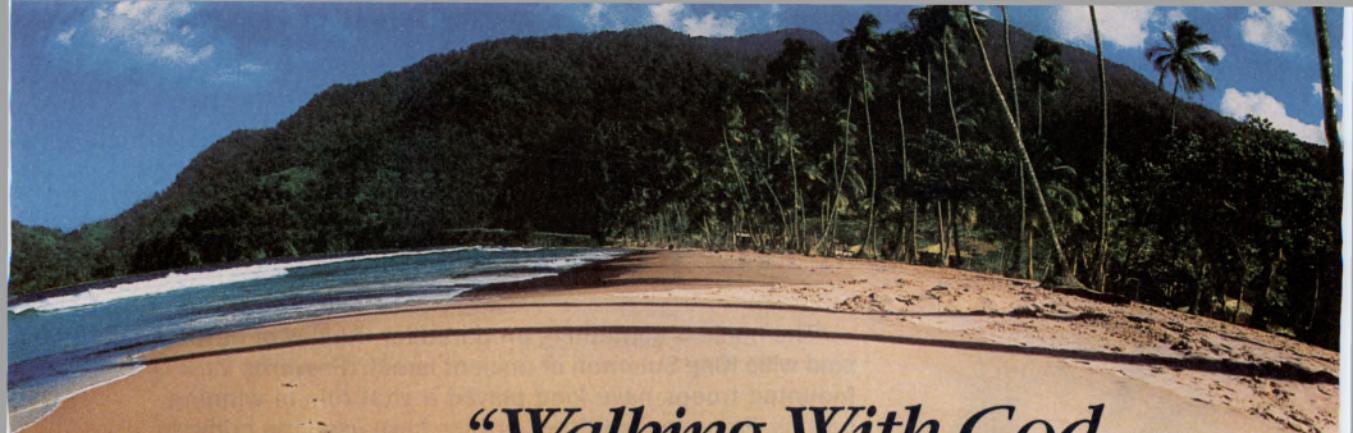
Although men have successfully tamed horses for millennia, bridling our imperfect nature is another matter. "We all stumble many times," observed the Christian disciple James. "If anyone does not stumble in word, this one is a perfect man, able to bridle also his whole body." (*James 3:2*) Indeed, who of us can claim that he has never uttered a thoughtless, cutting, or angry word?

Why, then, struggle to bridle our unruly tongue, which 'not one of mankind can get tamed'? (*James 3:8*) Well, people are prepared to spend time and effort breaking in a horse because they know that the trained animal will prove useful. Similarly, the better we train, or control, our tongue, the more useful it will be.

Considerate words can soothe and encourage our friends, workmates, and relatives. (*Proverbs 12:18*) Such words can make life more enjoyable for those around us. An unbridled tongue, however, spells trouble. "Keep a guard over your . . . tongue and keep yourself out of trouble," the Bible warns. (*Proverbs 21:23, The New English Bible*) To the extent that we succeed in bridling our tongue, we help both ourselves and those who listen to us.*

Alexander the Great
Alinari/Art Resource, NY

* Interestingly, the Bible reminds Christians that their speech cannot be separated from their worship. It says: "If any man seems to himself to be a formal worshiper and yet does not bridle his tongue, but goes on deceiving his own heart, this man's form of worship is futile."—*James 1:26*.



“Walking With God Brings Blessings Now and Forever”

IT IS often said that life is a journey. Do you ever feel, as many do, that you have lost your way? We live under terrible pressures in this world. As society around us grows ever more violent and immoral, we may feel buffeted by forces beyond our control. How can we keep our footing in such turbulent times? How can we keep our life's journey on a good course?

The Bible contains a beautiful and comforting answer. It shows that we have a wonderful opportunity—we can walk with God. Some might scoff at the very idea. After all, how can a mere human walk with the almighty Creator of the universe? The Bible shows that it is possible to do so. In fact, walking with God means living the best and happiest life possible in this troubled world. But what is involved? And what blessings does such a course bring?

These questions will be answered in the heartwarming talk, “Walking With God Brings Blessings Now and Forever.” This public address will be delivered at the district conventions of Jehovah’s Witnesses beginning this month. Hundreds of such conventions will be held around the world. To find the location nearest you, contact Jehovah’s Witnesses in your area or write to the publishers of this magazine. The March 1, 2004, issue of our companion magazine, *The Watchtower*, lists convention locations in the United States, Canada, Britain, and Ireland.