



Disease

How to Reduce the Risk



3 COVER SUBJECT Disease—How to Reduce the Risk

We live in a world that is plagued with dangerous diseases. How can we protect ourselves?

An ancient book of wisdom says: “The shrewd one sees the danger and conceals himself.”—Proverbs 22:3.

This issue of “Awake!” discusses steps we can take to conceal ourselves from danger and thereby reduce the risk of disease.

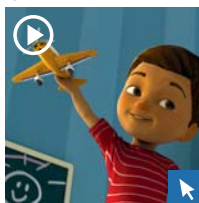
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COVER SUBJECT

Disease

How to Reduce the Risk

Every day your body wages war against enemies that are silent and unseen but potentially deadly. Foreign invaders, such as bacteria, viruses, and parasites, threaten your health.* You are not likely to be aware of those battles because your immune system repels or destroys most of the invaders before the onset of symptoms. Sometimes, however, the harmful germs gain the upper hand. If so, you may need to bolster your defenses with medicine and other treatments.

For thousands of years, people knew virtually nothing about the dangers of microscopic or other small harmful organisms. However, when 19th-century scientists confirmed the link between germs and disease, we became better equipped to defend ourselves. Medical researchers have since eliminated or greatly reduced the threat of some infectious diseases, including smallpox and polio. Recently, however, others, such as yellow fever and dengue, have made a comeback. Why? Consider these factors:

- Every year, millions of people travel around the globe, often transporting disease-causing agents. According to an article in the journal *Clinical Infectious Diseases*, “virtually all of the contagious virulent infections” can be spread by international travelers.
- Some bacteria have developed resistance to antibiotics. “The world is heading towards a post-antibiotic era, in which common infections . . . can once again kill,” states the World Health Organization.
- Civil unrest and poverty often hinder government efforts to control the spread of disease.
- Many people lack practical knowledge of how to prevent disease.

Despite these disturbing trends, there is much you can do to protect yourself and your family. The following will show that, even if you live in a developing land, simple and effective strategies may be within your reach.

* Most microbes do not cause disease. This series of articles focuses on microorganisms and other infective agents that threaten your health.

Protect Yourself From Disease

MANY ancient cities were protected by massive walls. If an enemy breached just a small section of a wall, the safety of the entire city was at risk. Your body is like a walled city. How you care for your defenses has much to do with how healthy you are. Consider five elements that can expose you to disease and how you can put up the best possible defenses.



1 WATER

THE THREAT: Harmful organisms can “march” straight into your body by way of contaminated water.

YOUR DEFENSE: The best defense is to protect your water supply from contamination. If you know that your water supply is contaminated or suspect that it is, you can treat the water at home to make it safe.* Store potable water in a closed vessel, and dispense it hygienically with a clean ladle or through a tap. Never put your hands into a clean water supply. If possible, you should try to live in a community that properly disposes of human waste so that it does not contaminate local water sources.

* The World Health Organization recommends several methods to improve water quality at home, including chlorination, solar disinfection, filtration, and boiling.

2 FOOD

THE THREAT: Harmful organisms can be present in or on your food.

YOUR DEFENSE: Contaminated food may look fresh and nutritious. So get into the habit of thoroughly washing all fruits and vegetables. Ensure that food utensils, kitchen surfaces, and your hands are clean when preparing or serving food. Some foods require cooking at a certain temperature in order to destroy dangerous microbes. Beware of food that is discolored or has an unpleasant odor or taste—signs that an army of microorganisms could be waiting for you. Refrigerate unused food as soon as possible. Avoid preparing food for others when you are sick.*

* For further information on food safety, see the June 2012 issue of *Awake!* pages 3-9.



3 INSECTS

THE THREAT: Some insects can infect you with the harmful microorganisms that live inside them.

YOUR DEFENSE: Limit contact with disease-carrying insects by staying indoors when they are active or by wearing protective clothing, such as long sleeves and long trousers. Sleep under treated insect nets, and use personal insect repellent. Eliminate containers of stagnant water where mosquitoes could breed.*

* For specific strategies against malaria, see the July 2015 issue of *Awake!* pages 14-15.

4 ANIMALS

THE THREAT: Microbes that live harmlessly inside an animal can threaten your health. If you are bitten or scratched by a pet or another animal or exposed to its feces, you could be at risk.

YOUR DEFENSE: Some people choose to keep their animals outside the house to minimize contact with them. Wash your hands after touching a domestic animal, and avoid all contact with wild animals. If you are bitten or scratched, wash the wound thoroughly and seek a doctor's advice.*

* Injuries from venomous creatures usually require emergency medical attention.

5 PEOPLE

THE THREAT: Some germs can invade your body by riding on tiny droplets in someone's cough or sneeze. They can also spread through skin contact, such as hugging or shaking hands. Microorganisms from other people may lurk on such items as doorknobs, handrails, telephones, remote controls, or computer screens and keyboards.

YOUR DEFENSE: Do not share personal items, such as razors, toothbrushes, or towels. Avoid contact with body fluids from animals or from other people, including blood and products derived from blood. And do not underestimate the benefits of washing your hands thoroughly and frequently. It is perhaps the most effective way you can stop the spread of infection.

If possible, stay home when you are sick. The U.S. Centers for Disease Control and Prevention recommends that you cough or sneeze into a tissue or your sleeve, but not into your hands.

An ancient proverb states: "The shrewd one sees the danger and conceals himself." (Proverbs 22:3) How true are those words today in a world plagued with potentially dangerous diseases! So inform yourself by

consulting local health services, and conceal yourself from danger by practicing good hygiene. Bolster your defenses, and reduce the risk of disease! ■



How to Reduce Your Risk During an Epidemic

In 2014, the Ebola virus spread rapidly throughout West Africa, making headlines around the world. The offices of Jehovah's Witnesses in the region launched an information campaign that helped many in the community to reduce the risk of infection. Witness representatives explained how they handled the situation.



How did you help people to understand the danger they faced?

We sought to dispel fear and confusion by making special presentations at public places. In those presentations, we explained how the virus spreads and warned against unsafe practices.



What practical steps did Jehovah's Witnesses take?

We used infrared thermometers to check the temperature of those arriving for meetings at our places of worship. Everyone carefully avoided unnecessary physical contact, such as shaking hands or hugging, and washed their hands frequently throughout the day. At strategic locations throughout the communities, handwashing stations were set up with a bleach solution.



How was it possible to continue your regular public meetings and Bible-teaching work?

The government imposed quarantines in some areas, so public meetings were canceled for a time. In those areas, families met at home for their worship. Some conducted Bible studies over the phone to minimize physical contact.



What happened if someone showed symptoms?

Authorities were notified. Any individuals who had been in contact with an Ebola victim, had attended a funeral of a victim, or showed symptoms kept themselves isolated for 21 days, the commonly accepted maximum incubation period for the Ebola virus.



The Byssus of the Marine Mussel

LIKE barnacles, marine mussels attach themselves to rocks, wood, or ship hulls. However, unlike barnacles, which fasten themselves tightly to a surface, marine mussels dangle by a network of thin filaments called byssus threads. While this method increases the mussel's flexibility for feeding and migration, the threads seem too flimsy to withstand the impact of ocean waves. How does the byssus allow the mussel to hang on and not be swept out to sea?

Consider: Byssus threads are stiff on one end, yet soft and stretchy on the other. Researchers have found that the precise ratio used by the mussel—80 percent stiff material to 20 percent soft—is critical for providing the strongest attachment. Hence, the byssus can handle the force of dramatic pulling and pushing by marine waters.

Professor Guy Genin calls the results of this research “stunning,” adding: “The magic of this organism lies in the structurally clever integration of this compliant region with the stiff region.” Scientists believe that the design of the byssus threads could have uses as diverse as attaching equipment to buildings and underwater vessels, connecting tendons to bones, and sealing surgical incisions. “Nature is a bottomless treasure trove, as far as adhesion strategies go,” says J. Herbert Waite, a professor at the University of California in Santa Barbara, U.S.A.

What do you think? Did the byssus of the marine mussel come about by evolution? Or was it designed? ■



How to Show Respect



THE CHALLENGE

The husband says: “When we got married, my wife and I had different views on what it meant to show respect. Not that one view was right and the other was wrong—they were just different. I often felt that my wife should have been more respectful in the way she spoke to me.”

The wife says: “Part of the culture in which I was raised included speaking loudly, using dramatic facial expressions, and interrupting when others were speaking. We didn’t view that as disrespectful. But that’s a completely different atmosphere from the one in which my husband was raised.”

Respect in marriage is not a luxury; it is a necessity. How can you show that you respect your mate?

WHAT YOU SHOULD KNOW

Men have a particular need for respect. The Bible tells husbands: “Each one of you must love his wife as he does himself.” But then it adds: “The wife should have deep respect for her husband.” (Ephesians 5:33) While both wives and husbands need to feel loved and respected, husbands especially thrive on respect. “Men need to feel that they can handle situations, solve problems, and take care of the family,” says a husband named Carlos.* When a wife respects her husband for such capabilities, she benefits not only her husband but also herself. “My husband actually shows his love for me more when I show that I respect him,” says a wife named Corrine.

Of course, wives need respect too. That makes sense because a husband cannot truly love a wife whom he does not respect. “I need to respect my wife’s opinions and suggestions,” says Daniel. “I also need to respect her emotions. My not understanding *why* she feels a certain way does not mean I can *dismiss* how she feels.”

Respect is in the eye of the beholder. The issue is, not whether you *think* you show respect, but whether your mate *feels* respected. This is a lesson learned by the wife quoted at the outset under the heading “The Challenge.” “Even if I didn’t think I was being disrespectful, if I made my husband feel that I was, then *I* was the one who needed to change.”

* Some names in this article have been changed.



WHAT YOU CAN DO

- Write down three things that you admire about your husband or wife. The admirable traits that you identify can be the foundation upon which to build respect.
- For one week, track *your* conduct (not that of your spouse) in the following areas.

Your words. One study of couples found that “spouses in happy, stable marriages made five positive remarks for every one negative remark when they were discussing conflict. In contrast, couples headed for divorce offered less than one (0.8) positive remark for every single negative remark.”*—*Bible principle: Proverbs 12:18.*

Ask yourself: ‘Do I speak respectfully to my mate? How often do I criticize compared with how often I give a compliment? What is the tone of my voice when I have an observation or a complaint?’ Would your spouse agree with your answers?—*Bible principle: Colossians 3:13.*

Try this: Set a goal to give your husband or wife at least one compliment per day. Suggestion: Look back at the admirable traits you identified earlier. Get into the habit of *telling* your mate what you admire about him or her.—*Bible principle: 1 Corinthians 8:1.*

Your actions. A wife named Alicia says: “I spend a lot of time doing housework, and when my husband respects my efforts by picking up after himself or washing his own dishes, I feel that my efforts are worthwhile and that I am important to our marriage.”

Ask yourself: ‘Does the way I treat my spouse clearly convey my respect? Do I give my spouse adequate time and attention?’ Would your spouse agree with your answers?

Try this: Write down three ways that *you* would like to be shown respect. Have your mate do the same. Then exchange lists so that each of you can work on showing respect in the areas that were specified. Focus on *your* own need to show respect. When one takes the lead, the other is likely to follow. ■

* From the book *Ten Lessons to Transform Your Marriage*.

KEY SCRIPTURES

“Thoughtless speech is like the stabs of a sword, but the tongue of the wise is a healing.”
—Proverbs 12:18.

“Continue putting up with one another . . . even if anyone has a cause for complaint.”
—Colossians 3:13.

“Love builds up.”
—1 Corinthians 8:1.



Brian and Serina

“A wife should be valued for more than physical things, such as the work she does around the house. She also needs to know that she is respected and valued for her qualities.”—Brian



Austin and Carly

“Without respect, you would not have a marriage—or at least not a happy one. All you would be left with is the resentment and insecurity that you both felt.”—Carly



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DESIDERIUS ERASMUS

IN HIS day, Desiderius Erasmus (c. 1469-1536) was at first admired as the most brilliant of European scholars, then vilified as either a coward or a heretic. Caught up in a tempest of religious debate, he dared to expose the faults and abuses that existed in Catholicism as well as among its would-be reformers. Today, he is recognized as a key figure in the transformation of Europe's religious landscape. How so?

An International Celebrity

Erasmus was a truly cosmopolitan scholar. He lived and worked in several European countries, where he made influential friends at royal courts and universities. Scholars from many lands consulted him. His writings—widely read and appreciated—made him famous. For a time, everywhere he traveled he was welcomed with fanfare and acclaim by princes, prelates, and scholars alike. One modern writer thus calls him the “Renaissance equivalent of today's international celebrity.”

STUDIES AND BELIEFS

Erasmus' mastery of Greek and Latin allowed him to compare Latin translations of the Bible, such as the Latin *Vulgate*, with early Greek manuscripts of the Christian Greek Scriptures, commonly known as the New Testament. He became convinced that Bible knowledge was vital. To that end, he asserted that the Holy Scriptures should be translated into other languages common in his day.

Erasmus promoted internal renewal of the Catholic Church, since he believed Christianity ought to be a life course, not a mere observation of meaningless rites. As a result, when reformers began to protest and demand change within the Church of Rome, he became the object of Catholic suspicion.

In his writings Erasmus satirically exposed clergy abuses, their pompous lifestyle, and the ambition of popes who applauded wars. He differed with corrupt clergymen who used church customs—such as confession of sins, the worship of the saints, fasting, and pilgrimages—to exploit believers. He also disagreed with such church practices as the sale of indulgences and enforced celibacy.

Erasmus dared to expose the faults and abuses in Catholicism and among reformers

GREEK TEXT OF THE NEW TESTAMENT

In 1516, Erasmus published his first edition of the New Testament in Greek—the first printed copy of the Christian Greek Scriptures ever to be released. Erasmus' work included annotations as well as his own translation of the Christian Greek Scriptures into Latin, which differed from the *Vulgate*. Over some time, he continued to revise his version, leading to a final product that included even more dramatic departures from the text of the Latin *Vulgate*.

One of the differences was at 1 John 5:7. To support the unscriptural teaching of the Trinity, some spurious words known as the *comma Johanneum* had been added to the *Vulgate*. They read: "In heaven, the Father, the Word, and the Holy Ghost: and these three are one." However, Erasmus excluded those words from his first two editions of the New Testament because none of the Greek manuscripts he consulted contained them. He was later pressured by the church to include them in his third edition.

Improved editions of Erasmus' Greek New Testament provided the basis for better translations into European languages. Martin Luther, William Tyndale, Antonio Brucioli, and Francisco de Enzinas used them to translate the Greek Scriptures into German, English, Italian, and Spanish respectively.

Erasmus lived through a period of momentous religious turmoil, and his Greek New Testament was considered an invaluable aid by the Protestant Reformers. Erasmus himself was considered by some to be a reformer, until, that is, the Reformation began in fearsome earnest. Then he refused to take sides in the great theological debates that followed. Interestingly, over 100 years ago, scholar David Schaff wrote that Erasmus "died in isolation, without a party. The Catholics would not claim him; the Protestants could not." ■



Erasmus' Greek
New Testament

QUICK FACTS

► In 1516, Erasmus released the New Testament printed in Greek. It contained the Greek text in one column and his Latin translation in the other, as well as extensive annotations.

► In the preface to his New Testament, Erasmus wrote: "I vehemently dissent from those who would not have private [common] persons read the Holy Scriptures nor have them [the Scriptures] translated into the vulgar [common] tongues."

► His books were burned by his critics in some parts of Europe and for many years they were included in the index of banned literature by popes in Rome.

The Extraordinary Clown Fish

FEW fish grab our attention the way the clown fish does. Perhaps it wins our hearts with its fancy coloring, which may remind us of a circus clown. Or maybe we are struck by its surprising choice of home—among the stinging tentacles of a sea anemone. Not surprisingly, another name for the clown fish is anemonefish.

Like many Hollywood actors, clown fish are not averse to photographs. Divers and snorkelers can usually expect clown fish to

“pose” for pictures, since they rarely stray far from home and are not particularly shy.

But what makes clown fish extraordinary is their seemingly risky lifestyle. Living among poisonous tentacles would seem to be comparable to setting up home in a nest of serpents. Still, clown fish and their anemone of choice are inseparable. What makes this strange partnership possible and successful?

‘I CANNOT LIVE WITHOUT YOU’

Like most good partnerships, clown fish and anemones give and take. The relationship is not merely convenient for the

Orange clown fish



Two-banded clown fish



clown fish; it is vital. Marine biologists have confirmed that clown fish cannot live in the wild without a host anemone. They are poor swimmers and would be at the mercy of hungry predators without the anemone's protection. However, by using the anemone as a home base and as a safe shelter when threatened, the clown fish may reach ten years of age.

The anemone provides a safe nesting site as well as a home. The clown fish deposit their eggs at the base of the host anemone, where both parents keep careful watch over them. Later, the clown fish family can be seen swimming around that same anemone.

What does the anemone get out of this relationship? The clown fish serve as marine bodyguards, driving away butterfly fish that like to feed on anemone tentacles. At least one species of anemone cannot live without resident clown fish. When researchers removed the clown fish, within just 24 hours, the anemones had disappeared completely. Apparently, butterfly fish had consumed them.

It seems that clown fish even provide their host with energy. The ammonium that clown fish excrete helps spur growth in the host anemone. And as the clown fish swim among the tentacles, they help circulate oxygen-rich water to the anemone.

GOING WHERE OTHERS FEAR TO SWIM

In the case of clown fish, protection is skin-deep. They have mucus on their skin that keeps them from being stung. Thanks to this chemical coating, it seems the anemone considers the clown fish one of its own. As one marine



Pink skunk
clown fish

biologist put it, the clown fish becomes “a fish in anemone's clothing.”

Some studies suggest that when selecting a new host, the clown fish has to go through a process of adaptation. It has been observed that when the fish approaches an anemone for the first time, it touches the anemone intermittently for a few hours. Apparently, this on-and-off contact allows the clown fish to modify its protective coating to conform to the new anemone's particular poison. Possibly the clown fish gets stung a little during this process. But after that, the two get along fine.

The collaboration of such different creatures offers a fascinating lesson in teamwork. In so many human endeavors, people from diverse cultures and backgrounds achieve remarkable results by pooling their resources. Like the clown fish, we may take a little time to adapt to working with others, but the results are well worth it. ■



PUNCTUALITY

Many who appreciate the value of punctuality struggle with tardiness themselves. The Bible provides practical wisdom related to this subject.

How important is punctuality?

WHY IT MATTERS Some have found that arriving at appointments a bit ahead of time actually reduces stress. Punctuality also enhances a person's reputation. How so?

Punctuality indicates competence.

When you are on time, it shows that you try to be in control of your life instead of allowing circumstances to prevent you from doing the things you want to do.

Punctuality suggests dependability. In a society where promises are often broken and commitments frequently ignored, people appreciate those who stick to their word. Dependable people earn respect from friends and family. Employers value those who arrive on time for work and meet deadlines. Dependable workers may even be rewarded with a higher salary and greater trust.

WHAT THE BIBLE SAYS There are passages in the Scriptures that relate to punctuality. For instance, the Bible says: "Let all things take place decently and by arrangement." (1 Corinthians 14:40) When two parties agree to meet at a specific time and place, it is decent and proper for them

to be punctual. The Bible also says: "There is an appointed time for everything, a time for every activity under the heavens." (Ecclesiastes 3:1) The context of this verse says that there is "a time to plant and a time to uproot." (Ecclesiastes 3:2) Farmers plant crops at the right time, on time, in order to yield the best possible harvest. In other words, the farmer's punctuality yields good results.

The Bible reveals a more noble reason for being punctual: It shows respect for others and their precious time. (Philippians 2:3, 4) By contrast, those who constantly make others wait could in effect be stealing their time.

"Look out not only for your own interests, but also for the interests of others."—Philippians 2:4.



What can you do to be punctual?

WHAT THE BIBLE SAYS The Bible encourages advance planning. (Proverbs 21:5) If you find that you are regularly late for appointments, perhaps your schedule is too full. Why not cut nonessential time wasters? Schedule more time between appointments, and aim to arrive early. This will allow for unexpected circumstances, such as traffic congestion or bad weather.

The Bible also encourages modesty. (Proverbs 11:2) This means knowing your limitations. Decide whether an appointment or deadline will realistically fit your schedule before agreeing to it. By overbooking, you add stress and frustration—to yourself and to others!

The Bible further tells us to make the best use of our time. (Ephesians 5:15, 16) Give priority to the most important tasks. (Philippians 1:10) For example, while using public transportation or waiting for others, take advantage of the time by catching up on reading or by planning the rest of your day. ■

“The plans of the diligent surely lead to success.”—Proverbs 21:5.



“Thank you
for providing
such timely
magazines.”

—Amy

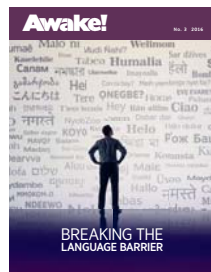
As a mother, Amy has found in *Awake!* practical solutions for everyday living. Like her, millions of readers have benefited from reading this bi-monthly journal. Visit www.jw.org to review the 2016 subjects listed below.



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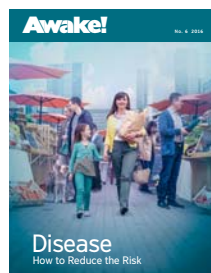
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