YOUR LIFE AND HEALTH™

NATIONAL HEALTH MAGAZINE AUGUST, 1982 $2.00

SNEEZES, WHEEZES AND ALLERGIES

HOSPITAL AIR IS POLLUTED TOO

PERHAPS YOUR CHILD NEEDS A MRS. SCHNEIDER

WHO INVENTED SPECTACLES?

"Janice and I have been vegetarians since we were first married. Twenty years and three healthy children later, we're still a vegetarian family."

Chances are you've wondered about vegetarianism. "How nutritionally sound is it?" "What kinds of meal alternatives are there?" "How can I be sure I'll get enough protein?"

With the high cost of meat today and its possible health hazards, questions about vegetarianism are on the rise. The editors of *Your Life and Health* have put together a special 32-page supplement entitled "Vegetarianism" that will help answer any questions you might have about a vegetarian diet. Included in this supplement are sample recipes and menus.

Whether you're looking to eliminate meat from your diet entirely or just want to cut back, "Vegetarianism" will show you how to save money and have a more healthful diet.

Order your copy of "Vegetarianism" today.

Please send me _____ copies of the special *Your Life and Health* supplement "Vegetarianism." I have enclosed a check or money order for US$1.50 per copy, plus 10% for postage.

Name _____

Address _____

City _____ State _____ Zip _____

Mail to: Your Life and Health, 6856 Eastern Ave., NW., Washington, D.C. 20012. Price is in U.S. currency and is subject to change without notice.

How to:

Did you ever want to know how to manage your money to make every penny count?

You can learn how to do it.

We're the Consumer Information Center of the government. And our free catalog lists over 200 booklets, brochures, and publications that tell you how to do a lot of different things.

You'll find brochures about growing vegetables in tiny gardens. About food and nutrition. Home repairs, health and recreation. Even about buying a used car.

How to get the catalog that lists them all?

Just send in the coupon.

Free catalog.

I'd like to know how to. Please send me your free catalog that lists over 200 government booklets, brochures, and publications.

Name _____

Address _____

City _____ State _____ Zip _____

Send to: Consumer Information Center
Pueblo, Colorado 81009

General Services Administration — Consumer Information Center

How to:

Did you ever want to know how to manage your money to make every penny count?

You can learn how to do it.

We're the Consumer Information Center of the government. And our free catalog lists over 200 booklets, brochures, and publications that tell you how to do a lot of different things.

You'll find brochures about growing vegetables in tiny gardens. About food and nutrition. Home repairs, health and recreation. Even about buying a used car.

Free catalog.

How to get the catalog that lists them all?

Just write Consumer Information Center, Pueblo, Colorado 81009.

General Services Administration — Consumer Information Center

Your Life and Health

EDITORIAL

The Thinking Person's Way to a Happier, Longer Life

The thinking person's way to a happier, longer life is simply by being what he or she already is—a thinker. At least, that's the conclusion suggested by two magazine articles I read recently, one in the *Reader's Digest,* and the other in *Psychology Today*. The *Psychology Today* article (April, 1982), describes a study designed to evaluate the way people respond mentally to their environment. As a result of the study the researchers concluded that many people "operate as if they were paying attention to the details of a given situation and weighing an appropriate response when in fact they are not." In other words, people often do not think.

Thinking—real thinking—is hard work. And it takes a great deal of self-discipline to think; more than it does to make yourself get proper and sufficient rest, or cut down on the amount of food you eat, or get up in the morning, or do any number of other things we ordinarily may consider difficult.

The eminent English painter Sir Joshua Reynolds said, "There is no expedient to which a man will not resort to avoid the real labor of thinking." Thomas Edison liked this observation so much that he had it put on placards and posted all over his plant. (Actually, as one trains himself to think, and it becomes a habit, it also becomes easier. But real thinking is obviously never an automatic function.)

The *Psychology Today* article suggested that thinking adds to one's life span. This conclusion is based on the observation that elderly people in old-age homes who perform tasks that require some thinking, live longer than others who do not have such duties.

During a recent trip to Michigan, I was told of a hospital for the aged in the State where the nurses are trained to mentally stimulate their charges. For example, they do not greet them with, "How are you this morning?" which is the customary, automatic, rather mindless, greeting, but with, "How are you this *Thursday* morning?" This stimulates awareness, and is more likely to elicit a thought-out response. A nurse might say, "Do you know, it's fifteen below this morning?" or, "Do you know, the temperature is 75 today?" And the old person probably responds with, "No, I didn't know." This causes some usage of the mind.

Again the nurse might say, "Come to the window and see the blossoms on the myrtle tree. They're lovely."

I was told that there is noticeably more alertness in patients so stimulated.

The *Reader's Digest* article ("Surprising R_x for a Richer, Happier Life," May, 1982), indicates that thinking also adds to one's life span.

Specifically, the article is about study—education—as a means of getting rid of depression, melancholy, boredom, frustration, and other, more subtle problems, and making life more vital and meaningful. Study, of course, means thinking. Describing older people who, after many years away from formal education, get into a study program, the article quotes an educator: "Many of them can perform as successfully as the other, younger students in their regular class sessions. Morale skyrockets; they see better, hear better, feel better. Education is the most efficient tonic they could find."

Then there was this observation that is appropriate to our subject: There is "evidence of a correlation between continuing education and *mental well-being and physical health and, in some cases, even longevity.*" (Italics in original.)

Obviously, there are many factors connected with long life, and the purposeful use of the brain seems to be one of them. Real thinking is challenging—and it can be so much fun!

Thomas A. Davis

Acting Editor

YOUR LIFE AND HEALTH

Acting Editor
THOMAS A. DAVIS

Editorial Secretary
CLARA B. BURTNETT

Art Director
BYRON STEELE

Designer
ROBERT WRIGHT

Circulation Manager
ROBERT S. SMITH

Associate Circulation Manager
TOM KAPUSTA

Marketing/Advertising
EDMUND M. PETERSON

Advertising Assistant
KAREN R. CRADDOCK

Braille Editor
RICHARD KAISER

Medical Consultants
ALBERT S. WHITING, M.D.
WALTER L. STILSON, M.D.

Dental Health Consultants
ELDON E. CARMAN, D.D.S.
ELMER KELLN, D.D.S.

SDA Dietetic Association Nutrition Consultant
ALICE G. MARSH, Sc.D., R.D.

98th Year of Publication
Volume 97, No. 8

COVER PHOTOGRAPH BY ROBERT WRIGHT

OBJECTIVE: YOUR LIFE AND HEALTH, a family magazine, features significant health information to motivate readers to adopt sound principles of healthful living, as well as articles to enhance other facets of the reader's life. **MANUSCRIPTS:** YOUR LIFE AND HEALTH gives consideration to unsolicited manuscripts, provided they meet certain requirements. Submissions can be up to seven double-spaced typewritten pages; brevity is encouraged. Articles should be health oriented, properly researched, scientifically documented, and written in an interesting style for nonprofessionals. Emphasis is on prevention. Only those articles accompanied by a self-addressed and stamped reply envelope are returned. **CONSUMER SAFETY:** An attempt is made to screen those products and services that are felt to be harmful, but the companies who advertise take actual responsibility for their products or services. **ADVERTISING:** YOUR LIFE AND HEALTH accepts those advertisements that are compatible with the aims and objectives of the journal. Those wishing to advertise should submit advance data on copy and product to the Marketing and Advertising Department. **BRAILLE:** Selections are available in Braille. Write to YOUR LIFE AND HEALTH, P.O. Box 6097, Lincoln, Nebraska 68506. **CHANGE OF ADDRESS:** Please use the change-of-address form in the Gazette section of this magazine. **SUBSCRIPTION PRICE:** U.S. currency: $17.75, one year. Single copy, $2.00. Prices may vary where national currencies differ. Prices subject to change without notice. **YOUR LIFE AND HEALTH** (ISSN 0279-2680) is published monthly and copyrighted © 1982 by the Review and Herald Publishing Association, 6856 Eastern Avenue NW., Washington, D.C. 20012. (202) 723-3700. Second-class postage paid at Washington, D.C. Vol. 97, No. 8.

YOUR LIFE AND HEALTH™

NATIONAL HEALTH MAGAZINE AUGUST, 1982

Page 12

Page 16

Page 24

CONTENTS

Hospital Air Is Polluted Too

"Did you see the 'No Smoking' sign?" I asked the two girls in the hospital room. "Oh, that," they giggled, and turned back to their smoking and chatting, ignoring us.

by Margaret H. Wyatt

Watchful for any lingering glow, one by one I emptied the large, overflowing ashtrays scattered around the spacious lounge. The air was heavy with the odor of tobacco.

No, I wasn't on the night clean-up crew of a singles club. I was in one of our country's most prestigious city hospitals, waiting out the long hours alone in the lounge.

Visiting time was long past. I was taking my turn at the bedside of a patient—a terminally ill patient—whose room was just down the hall. She was my only sister.

Having cleared the ashtrays into a big bin in the dimly lighted corridor, I sat down to my knitting. I was making warm slippers for my grandchildren. Now the air might clear.

It had all begun seven months before, just after my sister, a dedicated schoolteacher, planning to retire in June, discovered a large lump on one side of her neck. Determined to finish out the school year, she put off going to her doctor.

My sister had always wanted to be a teacher. She had been the little girl back in our hometown who would line up all the neighbor kids on a bench to play school. Even the family cat was made to sit on someone's lap.

In the depression days of the thirties she could manage to get only two years of teacher's college, called normal school in those days, and could teach only in country schools. That meant a one-room school with a wood- and coal-burning stove that she usually had to fire up before the children came bursting in from the frigid cold.

She had taught in twenty or thirty schools, schools scattered all over Minnesota. Two children of her own disrupted her tenure for a while, until they too were in school.

By going to night school and summer school for hundreds of hours she had finally, just two years ago, at the age of 62, gotten her four-year degree. She couldn't be held back by a lump.

Finally, there was the retirement party and school was out. Then came weeks of cobalt treatments, which plunged her deep into days of pain and depression. Hundreds of cards from schoolchildren lifted her spirits while she read them.

Finally, she was brought by ambulance to the city hospital and settled into a small room with two beds. As we followed her stretcher into the room we noticed a large sign on the wall, "NO SMOKING ALLOWED." But there was a young girl in the other bed, and she was smoking. Not only was she smoking, but a friend lolling on the foot of her bed was also smoking. We asked whether they had seen the sign.

"Oh, that," they giggled, and turned back to their chatting and smoking, ignoring us and the sign.

I walked to the nurses' station and spoke to a nurse on duty. "How does it happen that on this oncology floor, a floor that we were told is exclusively for cancer patients, in a room with a big sign on the wall that says NO SMOKING ALLOWED, there are two girls smoking just four feet away from my sister's bed?"

"Well," she said with practiced calm, "we are aware of the situation, but have to handle it very carefully. It's awfully hard to give up smoking when you've been doing it so long."

How long? I wondered. The girls were scarcely older than the ones my sister had taught for so many years with such love and concern.

"Could my sister be moved to another room?" I asked.

"I suppose she can, but just now there isn't another room available. We'll try to move her as soon as we can."

My sister's husband and I took turns going to the hospital cafeteria for a sandwich and a drink, not so much because we were hungry as to relieve the strain of worry and to quiet our anger.

Strolling down the hall that same afternoon, he noticed an empty room, went straight to the desk and demanded that his wife be moved into it. She was, but by then she was showing marked

---

Margaret H. Wyatt, a free-lance writer, resides in Grand Marais, Minnesota. In her Swiss-chalet style home, set deep in the woods, she spends her days writing, painting, and enjoying her ten grandchildren.

signs of difficult breathing and extreme weakness. She couldn't have cared less where she was. But we cared.

The girls, I had discovered, had moved into the lounge, where they were still enjoying their cigarettes. I sat nearby and was dismayed to hear them joking about our complaint. So, feeling very upset, I sailed right over to them.

"Maybe you think it's funny, but it's not funny to me. She's my only sister, who's spent most of her life teaching girls like you to be responsible persons. Doesn't that say anything to you? If not, does the fact that she's dying mean anything to you?"

They stopped laughing. I turned abruptly and walked away with tears in my eyes.

Our last week of vigil meant donning a gown, a mask, and plastic gloves every time we entered my sister's room. The rules in this hospital, as in most others, demand this procedure if the patient's white blood count drops below a certain point. This was a precaution against infection. The rule against smoking wasn't so strictly enforced. As for the precaution, what infection could she pick up that would be worse than terminal cancer?

The night I emptied the ashtrays in the lounge, my sister slipped into a coma. We phoned her children, both in their twenties. They were there the next morning. At nine o'clock that night she died.

My sister had never smoked, but my only brother smoked a lot when he was young. Now he sits in a lounge chair most of his days and in the same chair, wrapped in a blanket, throughout his nights. He can't breathe while lying down, because of acute emphysema. But he's afraid to go into a hospital for therapy because of our sister's experience. Also, he's heard of people with similar lung diseases suffering severe attacks while waiting in smoke-filled reception rooms to see their doctors.

To get the law on smoking clear, I phoned the Minnesota Lung Association to learn how the Minnesota Clean Air Act applies to health facilities such as hospitals. The law states: "The requirement for posting of appropriate signs in patient or resident rooms is met if there is at least one sign at the entrance to each floor and wing that states: Smoking is prohibited except in designated smoking areas.

"One of the following procedures shall be used in patient resident rooms:

"The responsible person shall ask all prospective patients or residents, or a person authorized to represent the patient or resident, whether a smoking-permitted or no-smoking area is preferred. The responsible person shall then assign rooms according to this preference when space is available. When space is not available in a no-smoking room, and a person is admitted to a room originally

PHOTOGRAPH BY LUIS RAMIREZ

designed for smoking, smoking shall be prohibited unless expressly permitted by the non-smoker."

Lifting *The People's Hospital Book,* published in 1978, from the shelf of our city library, I found only one reference to smoking in hospitals in its 206 pages:

"Roommates can be obstreperous, annoying and a real detriment to recovery. They may smoke when you can't stand smoke. They may have oxygen running which prevents you from smoking when you want to. If you ask for a change of rooms, approximately twenty different hospital facilities must be notified."

This book was ostensibly written to prepare people for hospital life. In approximately seven thousand hospitals in the United States, private rooms often have to be reserved some time in advance. Thus their limited supply rarely offers a spur-of-the-moment vacancy, ruling out emergency cases such as that of my sister.

The Minnesota Clean Air Act, passed in 1975, with an effective date as late as April 14, 1980, prompted me to check with some of our metropolitan hospitals. Here are some of the answers from admissions clerks to my question, "Just how well is our Clean Air Act enforced in your hospital?"

"It's not always enforced unless the family pushes the nursing staff. Sometimes they need a push."

"We try to put smokers together, but sometimes we're too crowded to do so. Patients can smoke."

"No visitors can smoke in the rooms. If a nonsmoker patient is moved in with a smoker, the room becomes a nonsmoking room. This is strictly enforced."

"We enforce the law. Patients can smoke only if they have permission from their doctor. Some rooms are designated for smokers, others for nonsmokers."

"All rooms are private on our oncology (cancer) floor and special care floor for respiratory problems. The law is strictly enforced on other floors."

"Patients on oncology floor are allowed to smoke, but we try to match up."

"A cigarette company will design its packages thirty-five times to get just the right words, colors, and image to sell the product."

"No, there aren't any signs on doors or walls of rooms. Patients would have to request a nonsmoking room."

"We have both smoking and nonsmoking rooms. Patients would have to request nonsmoking."

"A staff doctor would have to admit your brother. We have the required signs up. Patients have a choice of smoking or nonsmoking rooms."

Only two of those hospitals had all of the required signs posted.

What about secondhand smoke? Last year a leading newspaper published a story about a 62-year-old school board committee member in Norwood, Massachusetts. This popular member was resigning his seat on the board because colleagues refused, by vote, to stop their puffing. He didn't think he could survive another smoke-filled meeting. In fourteen years he had lost 60 percent of his lungs.

While cigarette smoking is a major cause of emphysema, chronic bronchitis, lung cancer, and heart disease, inhaling someone else's cigarette smoke affects the nonsmoker in much the same way as it does the smoker. New studies suggest that smoke drifting off the end of a cigarette contains even more tar and nicotine than does inhaled smoke. Research has proved that the amount of carbon monoxide in the blood of nonsmokers doubles in a poorly-ventilated room filled with cigarette smoke. The inhaled carbon dioxide stays in the body three or four hours, after they have left the room.

Almost a million teen-agers take up smoking every year, with the biggest increase in girls. U.S. Surgeon General Julius Richmond says that during the year 1982 lung cancer is expected to surpass breast cancer as a killer of women. He claims there will be 129,000 new cases of lung cancer as compared with 112,000 new cases of breast cancer.

Newspaper Columnist Carl T. Rowan said in a recent news column that tobacco and alcoholic beverages are multimillion-dollar operations, each with aggressive lobbies in Washington, lobbies that will stonewall any effort to outlaw cigarette smoking or further liquor controls.

The cigarette companies have spent billions of dollars and half a century trying to link smoking to the beautiful things in life. Their ads have been banned from television and radio, yet have glutted our magazines and newspapers to keep up the image. At the same time our government spends thousands of dollars trying to tell the American public of the hazards of tobacco.

One issue of a woman's magazine this year had nineteen full pages of cigarette advertising. A Christmas issue of *Time* carried scores of cigarette ads.

Tobacco products are distributed through some 1.35 million retail outlets in this country, according to R. J. Reynolds Tobacco. This is an average of 27,000 outlets per State.

A family practice physician in Chicago says "A cigarette company will design its packages thirty-five times to get just the right words, colors, and image to sell the product. You can't fight that with a simple poster on a hospital wall that merely says "PLEASE DON'T SMOKE."

That the Patient May Know

A unique information library permits a patient to have full information about his illness.

by Penny Rogers

Mrs. Steele was scheduled to have surgery for gallbladder trouble. Her doctor hadn't gone into much detail about the problem, and had given her only minimum information about the operation itself and its aftereffects. Too timid to ask the doctor many questions, she was worried by her lack of information. Then she remembered the patient information library.

The library, strictly tailored to the lay person, is an idea pioneered by the Mercy Hospital of Springfield, Massachusetts, and is unique in western New England, if not in the entire United States. Here people can read up on illness and therapeutic procedures in language they understand. Open twenty-four hours a day to patients and their families, the library is a place where they can learn more about the particular disease they are concerned about, and its treatment.

The library contains a wide variety of easy-to-undersand pamphlets, books and brochures on such topics as diabetes, cancer, hysterectomy, tonsillectomy, and a host of others. A well-thumbed copy of the *Physicians' Desk Reference,* the complete listing of prescription medications, is prominently displayed. Many of the pamphlets available are bilingual to accommodate the Spanish and Portuguese speaking people of the area. There are audio-visual teaching aids and a patient information network on the in-house cable television channel.

The library is the brainchild of Mrs. Mary Ellen Sheehan, R.N., and patient educator, and is administered by a committee made up of doctors, nurses, pharmacists, and other hospital professionals.

Knowledgeable Patients Are Cooperative Patients

The establishment of the library reflects the hospital's long-term commitment to public health education. The emphasis is on the knowledgeable patient being the easiest to treat because he is aware of his disease and its treatment.

"It is necessary for informed consent. The patient must understand what is being done," said the chief of staff, Charles Atamian.

Since its opening in August, 1981, the library has been well used by staff as well as patients.

"Even the staff is exploring the library, finding simple ways to explain things to patients—ways to break out of the jargon that we fall into," said Mrs. Sheehan.

Dr. Abhijit Desai, anesthesiologist, became involved as advisor to the education committee when he found that many patients simply didn't know what was going on. He felt they should know so that there would be no surprises for them.

"I think the library is a good source. Patients really like it."

Does he feel that this is a trend, that, more and more, patients want to know what's happening?

"Definitely," he said.

Do some doctors feel threatened by this type of patient?

"Yes, some do because the patients come asking knowledgeable questions about things they don't want them to know about just yet. Some feel it's wise to hold some information for later, when the time is right."

Before a crisis period of illness makes him or his family vulnerable, the patient needs the education. As a consumer, he can demand the care he wants, and patients do have the right to know, but they must be educated to ask questions that are pertinent. But there are great demands on medical people's time and a visit with a physician is often all too brief.

Some of the arguments for an informed patient, according to Mrs. Sheehan, are:

1. Knowledge clears up misconceptions.

2. Knowledge alleviates unnecessary anxiety.

3. A patient is often more compliant when he understands the rationale behind the doctor's suggestions for treatment.

4. Knowledge puts the emphasis on prevention, where it belongs.

With knowledge the patient is aware that if he has diabetes or heart problems he can, to a large degree, prevent traumatic experiences and be in charge of his own care to a great extent. The Patient Information Library is certainly a step in the right direction.

Penny Rogers is a free-lance writer living in Longmeadow, Massachusetts, who specializes in human interest, travel writing, and an occasional medical article. She just recently returned from spending six years in Brazil, where she worked for United Press International and later as a feature writer for the Latin American Daily Post.

Incapacitating Menstrual Pain

Medical science is at last discovering why some women have disabling symptoms each month, and is finding remedies for them.

by Sarah Ahmann

Menstrual pain is a serious matter for at least 30 percent of all women. Unlike the majority of women who experience the annoyance of mild to moderate menstrual cramping, these 30 percent are routinely incapacitated at the start of each menstrual period. The medical term for this condition is dysmenorrhea, and the symptoms include severe abdominal cramping, nausea, vomiting, diarrhea, dizziness, and extreme fatigue. These symptoms may last for several hours, a day, or, more rarely, as long as two days. Obviously, routine incapacitation is a serious problem, interfering with school, home, and work responsibilities. New medical research facts and theories about dysmenorrhea offer a biological explanation for the condition and identify some successful drug treatments.

Sarah Ahmann is a Washington, D.C., based free-lance science writer with a special interest in women's health topics. After receiving a B.S. in zoology from Duke University, she worked first in marine biology and later in human health sciences at the University of Washington in Seattle.

First a definition: The word *dysmenorrhea* means "difficult menstrual flow." *Secondary dysmenorrhea* is the medical term used when the pain and symptoms are the result of a pelvic disease or because of an intrauterine birth-control device (the IUD frequently aggravates menstrual pain). Most commonly, though, women who experience dysmenorrhea are physically normal, and their condition is called primary dysmenorrhea.

Whereas secondary dysmenorrhea usually begins abruptly in a woman in her twenties or older, primary dysmenorrhea occurs routinely with almost every menstrual period, beginning a few months or years after menarche—a girl's first menstrual period. During the one or two menstrual cycles a year that a typical woman does not ovulate, she will not experience dysmenorrhea. For reasons medical researchers do not understand, there is no dysmenorrhea pain and symptoms without ovulation.

Primary dysmenorrhea usually disappears after a woman's first vaginally delivered full-term pregnancy. Why it does is not completely understood, but it probably has to do with stretching of the uterus and cervix.

Despite the condition's physical symptoms and predictable patterns, for most of this century doctors were taught that the root cause of dysmenorrhea is psychological. You don't need to go back very far in the past to find a great deal of confusion surrounding the topic. Take as an example the popular literature of the '70s on menstruation and menstrual pain, and a diverse literature it was. The approaches to menstrual pain fluctuated from psychological to social to political, and back again. Here are some examples, all from national women's and news magazines:

(1970) A physician suggested that dysmenorrhea could stem from the psychological factors of a young woman's "overdependence on her family or parents, and a misunderstanding of her feminine role and attempted rejection of it."

(1973) A Berkeley psychologist reported that her research linked the degree of menstrual pain a woman experienced with her religious beliefs and background.

(1975) A doctor suggested that dysmenorrhea "may actually be a cultural predisposition which is being transmitted by mothers to daughters. In certain families it is not uncommon to see a young girl being conditioned by her older female relatives to the fact that cramps are a part of menstrual periods and anticipating that this will happen to her as well."

(1976) "Some ardent feminists are even urging women to examine, smell, and taste their own menstrual blood as a way of overcoming traditional attitudes toward menstruation."

(1979) An author wrote that her dysmenorrheic subject "has learned to enjoy the periodic affirmation of her femininity" [menstruation] "and all its once-unimagined, unappreciated surprises."

In a culture that holds the subject of menstruation as taboo (even among themselves women rarely discuss the topic), almost any theory about menstrual pain that we come across catches our attention, so it is no wonder that the present generation of women of childbearing age frequently have doubts, fears, and confusion concerning menstrual pain.

If a woman is incapacitated at the start of her period, she worries, "Is it because of a psychological problem, or a weakness of character?" Gynecologists rarely bring up the topic: "Is severe menstrual pain expected and simply to be stoically borne in private?"

The most recent medical information that began to creep into popular literature around 1978 linked an excess of body chemicals called prostaglandins to dysmenorrhea pain and associated symptoms. This prostaglandin clue will bring us out of the tangle into a clearer understanding of dysmenorrhea.

Prostaglandins are a family of hormonelike compounds that can be manufactured by most of the body's tissues and fluids. Many parts of the body are sensitive to prostaglandins. This group of compounds can make smooth muscle (a type of muscle found in the intestine, stomach, uterus, blood vessel, and elsewhere) contract or relax and can increase the sensitivity of nerves. They are involved in swelling and pain, and play a part in many other activities of the body. While studying prostaglandins, researchers learned that aspirin and drugs of the aspirin family work by lowering prostaglandin levels in the body. By doing this, aspirin-family drugs produce various soothing effects, such as the reduction of fever, swelling, and pain.

Prostaglandins and the prostaglandin-blocking effect of the aspirin-family drugs both play important roles in dysmenorrhea pain and its treatment.

The inner lining of the uterus manufactures prostaglandins, which play a part in stimulating the mild contractions of the uterine smooth muscle that expel menstrual blood during menstruation. Research has shown that dysmenorrheic

Prostaglandin is the culprit in many cases of menstrual pain.

women produce excess amounts of prostaglandins. It is thought that the overabundant prostaglandins stimulate excessive uterine muscle contraction, as well as intestinal and stomach muscle activity, leading to severe cramps, diarrhea, and nausea. Researchers tried several of the aspirin-family drugs, technically termed "prostaglandin synthesis inhibiting drugs," in the treatment of dysmenorrhea. Aspirin itself was only very weakly effective, but some others, Ibuprofen, Mefenamic Acid, Naproxen (all FDA recommended for mild to moderate pain and arthritis pain and swelling, with a recommendation for dysmenorrhea treatment pending) were very effective, if not totally so, in eliminating dysmenorrhea symptoms.

These prescription aspirin-family drugs, primarily used for the relief of arthritis pain, are not yet "on the books" for treatment of dysmenorrhea. But any physician can prescribe them for dysmenorrhea at his own discretion, taking into consideration the research evidence built up over almost ten years. Dr. A. Gohari, a gynecologist at the Women's Medical Center of Washington, D.C., a large clinic serving six to seven thousand patients each year, said he "routinely" prescribes Ibuprofen for incapacitating menstrual pain. He finds this "highly preferred" to the typical narcotic painkillers or birth control pill treatments used in the '60s and '70s. Narcotics make the patient drowsy, do not target dysmenorrhea symptoms, and have many dangerous side effects, including addiction. Birth control pills eliminate dysmenorrhea altogether by halting ovulation. However, the Pill has a whole list of undesirable side effects that can make it unacceptable if a woman does not also want to use it for birth control. The prescription aspirin-family drugs are a vast improvement. They are taken just before or right at the onset of menstruation, specifically target the dysmenorrhea symptoms by suppressing uterine prostaglandin production, and have few if any side effects when used for dysmenorrhea.

Dr. Gohari emphasizes the importance of a gynecologic check-up for severe menstrual pain, especially if the pain begins suddenly in a woman who normally has pain-free menstrual periods. Infrequently, a disease condition is found to be the cause. A woman with such secondary dysmenorrhea needs to be diagnosed and under a doctor's care. To reduce the pain of secondary dysmenorrhea stemming from the presence of an IUD, Dr. Gohari prescribes the aspirin-family drugs.

For women with only minor menstrual pain, Gohari recommends a couple of aspirin, hot compresses, and rest. Hot tea, baths, hot compresses, massage, alcohol, rest, special exercises—all have been recommended for dysmenorrhea from the time of the ancient Egyptians. These might offer some psychological comfort, but they give no effective relief from symptoms of dysmenorrhea.

Some common-sense measures that perhaps can be helpful to dysmenorrheic women are: If possible, minimize commitments and pressures at the expected time of period and get extra sleep. Good exercise patterns throughout the month seem to be helpful. It is a good idea to wear loose clothing to take pressure off the abdomen and legs. A dysmenorrheic woman is advised not to use tampons, since they seem to increase cramping. (This is also not a bad idea in light of the recent link between tampons and toxic shock syndrome.) Constipation might worsen menstrual cramps, so prunes and fresh juices can be good snacks the few days before the onset of menstruation.

BIBLIOGRAPHY

"Dysmenorrhea and Prostaglandins; Proceedings of an International Symposium in Helsinki," ed. by N. Wiqvist, O. Widholm, S. J. Nilsson, *Acta Obstetricia et Gynecologica Scandinavica Supplement* 87, 1979.

Jean L. Marx, "Dysmenorrhea: Basic Research Leads to a Rational Therapy," *Science*, 205, July 13, 1979.

Is That X-ray Really Necessary?

Prudently used, the X-ray is very worthwhile, but you would be wise to keep your exposure to a minimum.

by Noreen Allcock

Was your last X-ray really necessary? Medical X-rays can cause cancer or genetic mutation, but the public is generally not aware of the potential hazards of overexposure to this unseen and unfelt radiation. A 1971 Food and Drug Administration Commission stated that "more than 90 percent of all human exposure to man-made radiation comes from the use of diagnostic X-rays in contrast to 1 percent from radioactive discharge from nuclear plants." However, paradoxically, controls over the nuclear power industry are much more stringent than those regulating the medical and dental professions.

The two most prevalent reasons for overexposure to X-rays are poorly trained personnel who operate thousands of machines in the United States, and the "defensive" X-rays taken to protect physicians and dentists from potential malpractice claims. More than half of the population is X-rayed annually, and it has been estimated that one of every three X-rays is taken for a reason other than the patient's well-being.[1] Ironically, all physicians and dentists in this country are licensed to operate an X-ray machine even if they have had only minimal training in its use.[2] Even more disturbing is the fact that only eleven States mandate licensing for X-ray personnel; elsewhere, practically anyone can operate an X-ray machine.

Many other reasons exist for patients being overexposed to this type of radia-

Noreen Allcock is a free-lance writer and a graduate of Pennsylvania State University.

PHOTOGRAPH BY ROBERT WRIGHT

tion. It is economically profitable for a physician or dentist who owns an X-ray machine to take as many X-rays as possible. Insurance companies may not settle medical and dental bills without the "proof" an X-ray provides that the treatment is really necessary. Physicians often order X-ray examinations because Medicare or Medicaid is paying for them. Chiropractors also take X-rays, and Medicare now covers chiropractic treatment.

X-ray Benefits

Of course, the benefits of the prudent use of X-rays are obvious. A patient who is seriously ill or who has an undetermined problem will usually opt to have an X-ray examination—most often a wise decision. But it would be equally wise for this patient to question whether the information to be obtained from the X-ray warrants the potential hazard of the radiation.

X-rays are a man-made form of radiation that can penetrate tissues and bone. The main value of diagnostic X-rays is to detect internal damage and abnormalities in the body. This type of examination usually involves a short but relatively intense exposure to radiation. In addition to exposure from man-made radiation, we are continuously exposed to natural background radiation in the form of cosmic rays and radioactive materials present in very small amounts in building materials and minerals. But this type of radiation is far less intense.

It is now conclusive that overexposure to radiation can cause irreversible damage to the body. Mutations occur when body cells go out of control and divide again and again to produce leukemia and other forms of cancer. Other types of mutations can occur when a change takes place in the sperm or ovum. This does not affect the person in whom the change takes place, but it could affect his or her future offspring. It is known that rapidly growing cells, such as those of an embryo or fetus, are extremely vulnerable to radiation damage, especially at the stages when the organs are formed. Even a slight exposure to radiation can be critical to a fetus.

Some parts of the body are more sensitive to radiation than others. For example, dense bone is much more absorptive and thus more susceptible to damage than "transparent" skin. Some organs absorb more radiation than others, and it is suspected that radiation damage is cumulative. Normal cells have the capacity to recuperate from exposure to background radiation or small doses of X-rays, but above a certain radiation dose this repair mechanism appears to be overwhelmed. The threshold dose is unknown but almost certainly varies from individual to individual. Thus, X-ray examinations should be reduced to the absolute minimum. The greater the exposure to radiation, the greater is the potential for irreversible damage, and this damage may not become evident for many years.

High Radiation Exposure

Diagnostic examinations that involve high doses of radiation include X-ray examinations of the spine and lower back, pelvis, breast (mammography), skull, and hip or thigh. A high percentage of the X-rays taken by chiropractors expose the full spine and the nearby organs to extremely high doses of radiation. A 1971 survey of chiropractors in the United States and Canada revealed that of the 10 million X-rays taken annually by chiropractors, 2 million were of the high-dose type.[3] Lower doses of radiation are involved when the chest, shoulder, teeth, or the extremities are X-rayed.

Many patients allow X-rays to be taken rather than risk an embarrassing confrontation with their doctor or dentist.

Many patients allow X-rays to be taken rather than risk an embarrassing confrontation with their doctor or dentist. But it would be more prudent to find a doctor or dentist who is sympathetic to a request to avoid all but the most essential exposure to radiation. There are a number of ways to safeguard yourself against overexposure:

- Discuss with your physician, dentist, or chiropractor the necessity of taking any X-rays.
- If an X-ray is recommended, balance the benefits with the potential risks, especially if a high dose of radiation is involved.
- Do not have X-rays taken routinely unless there is a valid reason for doing so.
- During dental examinations, the dentist should try, as much as possible, to avoid taking X-rays.
- Keep a record of what X-rays have been taken in the past. Use these whenever possible.
- Instead of a chest X-ray for tuberculosis, have a skin TB test.
- Avoid mobile X-ray units or out-of-date equipment; usually much larger doses of radiation are involved than with other units.
- It is much less hazardous to have X-rays taken by a full-time radiologist than by a physician who operates his own X-ray machine.
- Young children, and women in the early stages of pregnancy, should avoid exposure to X-rays; rapidly growing cells are especially vulnerable to radiation-induced cancer. If an X-ray is absolutely necessary, it is imperative that a lead apron be used to shield the reproductive region.
- Mammography is effective in detecting breast tumors, but it involves significant amounts of radiation, which may produce cancer as well as detect it. The American Cancer Society recommends that symptom-free women between the ages of 35-40 should have a baseline mammogram; women over the age of 50 should have a mammogram every year (with the use of low-dose X-ray equipment); women under 50 should discuss the need for mammography with their physicians, as should women who have had breast cancer or have a family history of breast cancer.[4] (This is in addition to the monthly breast self-examination for women over 20 and a routine breast physical examination by a physician every three years for women 20-40 and every year for women over 40).

The society stresses that these are guidelines only and that "no single recommendation is best for everyone." As techniques improve, recommendations are reevaluated.

You should always satisfy yourself that an X-ray is really necessary. Remember, the potential damage from overexposure to radiation may not show up for many years.

REFERENCES

[1] E. J. Hall, *Radiation and Life* (New York: Pergamon Press, 1976), p. 195.

[2] *Ibid.*, p. 183.

[3] "Chiropractors—Healers or Quacks?" *Consumer Reports*, 1975, 40, 10, 610.

[4] American Cancer Society, "Guidelines for the Cancer-Related Checkup: Recommendations and Rationale" (prepared by David Eddy, M.D.), *Ca-A Cancer Journal for Clinicians*, July/August, 1980, 30, 4, 228.

Perhaps Your Child Needs a Mrs. Schneider

Roger believed he couldn't read. It took a perceptive, sympathetic, and wise teacher to change his mind.

by Winnie Zerne

I froze in my tracks; my heart turned to stone. In the Panama Canal Zone windows are closed at the bottom by little metal hooks. The hook on the west window was out of its eye. The screen was swaying open, an ill omen.

Leaning out the open window, I saw my 18-month-old boy lying on the cement twelve feet below. I shouted, and Otilia, the house girl, and Ed, Jr., the oldest brother, came running to see why I was alarmed. When they saw little Roger's white face they both began to scream.

I knelt beside the still form. He was breathing. I picked him up, put him on the front seat of the car, and got behind the wheel, praying every minute. Ed and Otilia climbed in the back, still screaming. I couldn't bear to hear them scream, so I asked them to pray instead, which they promptly did the rest of that seemingly unending two-mile trip to the Balboa Hospital.

On entering the hospital a nurse grabbed the baby and ordered another nurse to put me on a stretcher. I was eight months pregnant.

"I'm not in labor," I objected. "This child is wounded, and is unconscious. Please take care of *him!*"

Immediate X-rays revealed no broken bones, but there was a definite concussion. Roger was put to bed for twenty-four hours of observation, and we were told to watch him for a week after he came home to be sure things were OK.

Alerted by this accident, I learned as time went on that I had a left-handed, accident-prone child. But my husband and I never worried about him for a minute, because Roger was an optimistic person. He progressed up to school age with more than average skills. He could sing a whole song before he was a year old, and was a sensitive soul.

One day, at the end of his third grade, Roger came to me and, placing his reading book on the table, announced, "Mamma, I can't read."

I was alarmed. "But who told you you could not read?" I asked.

"Miss Edwards told me I couldn't read," he answered, matter of factly. So our boy was about to enter the fourth grade as a nonreader. His father and I were genuinely concerned, for Roger's reaction to the world around him revealed a healthy mind and a natural curiosity. He was not a behavior problem in school or at home.

As concerned parents we called in a child psychologist, trying to find out why our son never accepted his turn when called upon to read aloud in the classroom. He did, however, accept math and science as challenges, and loved sports on the playground.

"If Roger is a slow learner, we don't want to push him," we told Mr. Graham.

The psychologist spent most of a day testing Roger. At 4:00 P.M., the day of testing, he told us to let Roger go to play with his friends. Then he, my husband, and I sat around the kitchen table to discuss the future.

Mr. Graham showed us his charts and began to explain. "You don't have a slow learner here, you have a child who has been turned against reading. His IQ in abstract thinking is over 140, his reading IQ is only about 100. This tells us that something is wrong with the program."

A Ploy That Backfired

I told him Roger's teacher had tried reverse psychology on him with disastrous results. Fortunately, the third grade was to end in six weeks, so there was no follow-up with Miss Edwards. We would leave Roger go free for the summer and make a new approach in the fall.

Then, just before school let out, for the third time during the school year, Roger broke his glasses. Previously, because he was in school, we always replaced them immediately. This time we told him we would buy him new glasses in the fall before school began. He did not object.

In August we took him to the optometrist for an examination. The doctor reminded us that Roger's sight was very bad; indeed, he could be called clinically blind. We ordered glasses immediately.

Roger was outdoors when his glasses arrived. He put them on and looked around, obviously pleased. "How good it is to see leaves and birds again!" he said. He even picked up a small book and tried to read. We felt like ogres.

During our discussion with Mr. Graham he made an interesting point that changed our summer schedule and for all the rest of Roger's years at home. He asked my husband, "Does Roger ever see *you* read?"

"Well, I really don't think so," my husband answered hesitantly.

"Then spend a part of every day letting him see you sit down and become engrossed in reading," Mr. Graham advised.

His counsel did not fall on deaf ears. From that day in August, 1958, until Roger went off to attend a boarding high school, Dad took his task seriously. In fact, since big Ed stands six feet six inches and is a portly man, a special chair was purchased to hold him. So, each evening for at least an hour Dad sat in his chair enjoying the *National Geographics*, medical articles, the Bible, and many other types of reading material.

The example made its impact on Roger. He began to come home with books from the library. He read in bed, and he read in the car when we were traveling.

When September arrived, and Roger was to go into fourth grade, the first day

---

Winnie Zerne is a homemaker, registered nurse, part-time music and language teacher, amateur conchologist, world traveler and author, living in West Chester, Pennsylvania.

of school had special meaning for him and me. I accompanied him to meet his new teacher.

Roger's New Teacher

After meeting his teacher, Roger went out on the playground with his friends. I spoke about him to Mrs. Schneider. She was new to the area and very sympathetic. "You need not worry about your son," she assured me.

But I rested uneasily during the following weeks. Then, one day I received a telephone call from Mrs. Schneider. She made an appointment for me to spend some time with her after school.

Mrs. Schneider, smiling broadly, was eager to tell me about Roger. I was eager to learn what she had to say.

"I sensed that Roger did not enjoy Dick and Jane books, so I substituted some not above his level on history, science, and biographical material. I made a deal with Roger in September that I would teach him to read if he would help me to learn more about science. He is a real naturalist and knows a great deal about birds. He enjoys playing the flute, and since I love music, we got into that also. Roger's attitude began to change. He did not immediately volunteer when we read aloud during classes, but he did assignments in the library. In fact, I gave the whole class an assignment on learning to use the library, in which Roger participated.

Mrs. Schneider made Roger's life strong with her loving perception and, with remedial reading, he learned to speed read.

"There are about twenty-five students in his room. I was eager to know how he made out, but I could not show my anxiety. About seventeen students gave their reports, and I could not stand the suspense, so I asked Roger one day, 'Roger, do you have a report to bring to the class?' "

"Yes, I do," was his prompt reply.

"Then we are ready for you," I said.

"What followed was like a miracle, for Roger brought an oral report to the class on 'The Boatbuilding of the Ancient Phoenicians.' Roger stood in front and spoke with authority. He did not seem nervous or ill at ease; he was simply engrossed with his subject. The class was impressed."

There were tears in my eyes that day as I held the hand of that loving black teacher who was a graduate of Howard University in Washington, D.C. I left her office with a light heart.

As for Roger, Mrs. Schneider made his life strong with her loving perception, and with a bit of help from a remedial reading teacher. When Roger was in eighth grade he was speed reading at almost one thousand words a minute, with 90 percent comprehension. Teachers and parents were ecstatic.

Roger went on to become president of his high school class. He entered college, then went on to Howard University, where he graduated from dentistry. He is now a practicing dentist, married to a registered nurse, and they have four boys who keep them busy.

I wonder what would have happened to Roger had he not had Mrs. Schneider, or someone like her, for a teacher in his early years. I am indeed grateful to her for what she did for him. I wish that all parents who have children similar to Roger, perhaps, but other types of problems also, could have teachers like her.

For parents who have children with such a problem, let me say, Stay close to your child. Show loving and patient sympathy, and find out all you can about his problem so you can help him as much as possible.

PHOTOGRAPH BY LUIS RAMIREZ

Who Invented Spectacles?

In her search to find the answer to this question, the author came up with some interesting facts.

by Goldie Down

Over a period of several years I complained that telephone and street directories, maps, and some magazines were becoming increasingly difficult to read. "The print gets smaller every year," I grumbled. "They must be trying to save paper."

When I was about 43 I found, to my chagrin, that I could no longer thread a sewing needle, and the awful truth dawned; I needed spectacles. My eyes, like the rest of me, were growing older.

After a trip to an optician, lo, print resumed its normal size, and I no longer wrestled with recalcitrant needles and thread. Wonderful!

Now every time I don my spectacles I breathe a silent Thank you to the person who invented these aids for aging eyes. In fact, one day I felt so grateful for my rejuvenated sight that I decided to trace this unknown benefactor.

I soon found that the history of spectacles, like that of many other things, is unclear. The Roman emperor Nero is said to have used a crystal gem, mounted in a ring, to aid his vision. Going even farther back we found stories that in 4000 B.C. the Chaldeans used some sort of magnifying device.

The great explorer Marco Polo mentions seeing framed magnifying glasses in the court of Kublai Khan in A.D. 1270, and three centuries earlier the Chinese used something similar when reading.

The First Spectacles?

But the first real evidence of spectacles comes from Italy, where a tombstone bears the inscription, "Here lies Salvino d'Armato of the Armati of Florence. Inventor of spectacles. God pardon him his sins. A.D. 1317."

In 1268 an Englishman named Roger Bacon comments on optical lenses being used, and a portrait of Hugh of Provence, painted in 1352, shows him wearing spectacles.

An interesting speculation arises from another portrait—that of Saint Jerome, painted by Domenico Ghirlandajo in 1480. It depicts the great scholar seated at a desk from which dangled spectacles. Were these dangling eyeglasses the personal property of the saint or were they, like the valuable books of ancient times, chained to the desk for the use of any comer? Whatever the answer, the detail of eyeglasses included in the painting resulted in Saint Jerome becoming the patron saint of the spectacle makers' guild.

The first spectacle lenses were made of precious stones such as beryl or transparent quartz. But popular demand soon made this impractical, and the glass-

---

Goldie Down is an Australian free-lance writer who has had a number of books and many articles published.

PHOTOGRAPH BY ROBERT WRIGHT

makers of Venice, and later of Nuremberg, developed optical glass for the use of spectacle makers.

For a long time only convex lenses were used. These aided *presbyopia,* which is a polite term for failing eyesight caused by aging, and *hyperopia,* which is a type of "old sight" often found in young people.

The first evidence we have of concave lenses being used, presumably for *myopia,* shortsightedness, is in a portrait of Pope Leo X painted in 1517 by the famous artist Raphael.

From simple magnifying lenses that assisted failing eyesight, a century or more of costly research and experimentation was needed to develop the varieties of fine optical glass required for high-grade ophthalmic lenses. Men such as William Wollaston, of London, found that deficiencies found in glass lenses could be eliminated by grinding the glass in appropriate convex or concave forms (1804). Then Ernst Abbe and Otto Schott, in 1885, introduced new elements into the glass melt, which led to a number of desirable variations in refractive quality.

But not until about 1827 were spectacles recognized as anything other than aids for failing eyesight. Then Sir George Airy, a British astronomer, saw the possibility of correcting other eye deficiencies by means of spectacles. He attempted to correct his own astigmatism (a common eye defect that relates to the focus of light rays entering the eye) by using a suitable cylindrical lens. Forty years later a man named F. C. Donders further improved both the diagnosis and the determination of the glasses needed for various eye defects.

Benjamin Franklin Invented Bifocals

The first dramatic change occurring on the spectacles scene in several hundred years was when Benjamin Franklin, the same man who experimented with electricity, invented bifocals.

In 1784, Franklin devised lenses for near and far vision and held the two parts together by means of the spectacle frame. Strange to say, this idea served for another hundred years before cemented bifocals were perfected. But the fused types soon followed, and one-piece bifocals were introduced about 1910 by Bertzon and Emerson, of the Carl Zeiss works in Germany. Trifocals and newer designs in bifocals were introduced at later dates.

It took time for the public to accept the concept of "two-in-one" eyeglasses. I recall that, as a child, I spent considerable lengths of time helping granny—her farsight spectacles perched firmly on her nose—to find her reading glasses.

From being a curiosity, spectacle wearing progressed rapidly in the minds of some to being regarded as a mark of intelligence, and high society adopted eyeglasses as a sign of elegance and distinction. The monocle was worn purely for affectation and numerous tales are told of fashion-plate people wearing decorative rims that contained no glass.

A visit to any institution's hall of fame where portraits of past presidents or founding fathers are displayed will demonstrate that the size and shape of spectacle frames and lenses became a matter of fashion. Some of the older types were half-moon shaped, some round, some elliptical. George Washington wore quadrilateral lenses in steel frames with long jointed temples.

Around the year 1840 rimless eyeglasses became popular. These were clipped to the bridge of the nose. Some featured the safety measure of a fine gold chain from eyeglass to ear on one side. The rimless type remained largely in vogue for many years.

With the introduction of plastic, fashions in spectacle frames changed almost as often as fashions in clothes. For a time thick, black frames were all the rage. Cat's eye shape had its day. Then huge glasses, which gave the wearer an owlish appearance, gained popularity. And for a time thin gold or silver frames were greatly favored.

In the twentieth century the popularity of wearing hats waned, and eyeglasses that were tinted to shield the eyes from sun glare came into favor. Sunglasses were made in all shapes and sizes, and in many countries became status symbols in themselves. Sunglass frames equipped with side shades, flower-shaped frames, square, or colored to match the wearer's outfit have all had their day. Currently sun-sensitive lenses are popular.

Cheap sunglasses, worn for long periods, have proved to be injurious to eyesight. Many sunglasses are made of plastic, which is not favored for lenses except when weight is a consideration. Clear plastic is frequently used for prescription eyeglasses. However, plastic scratches easily.

Contacts Aren't so New

Contrary to my expectation, I found that contact lenses are not a recent innovation. Almost one hundred years ago (1887) a man named A. E. Fick made the first contact lenses. They were of glass and fitted over the whole eye.

Fick's lenses, with little variation, served for fifty years. Then, about 1938, plastic began to take the place of glass lenses.

Until 1950 most contact lenses were made by taking impressions of the eye, making a mold, and forming the lens on it. This lens was inserted with the aid of a nonirritating fluid.

Soon smaller lenses, covering only the cornea and floating on a layer of the eyes' own tears, became popular. These were so thin, 0.1 to 1 mm, that they could be worn all day without discomfort.

Apart from the aesthetic value of being invisible, contact lenses have several advantages over spectacles. They give the wearer a wider range of vision, the wearer can engage in active sports since contact lenses are not easily dislodged or broken, and they can be tinted and used as sunglasses or colored so as to change the color of the wearer's eyes.

I remember meeting a young girl with red-gold hair and green eyes—positively green. I was fascinated. I had read stories where a green-eyed heroine figured prominently but I had never before met anyone who actually had really green eyes. Nor had I previously met anyone who wore colored contacts! It was some time later that I discovered her secret.

On the debit side is the fact that contact lenses are much more costly than spectacles, are easily lost when not actually being worn, and some people find it hard, if not impossible, to become used to them.

Since about 1958 bifocal contacts have been available for those who need them.

Manufacturing spectacles is an enormous industry. As far back as 1954 American firms produced 33 million pairs of single vision spectacles and 14 million pairs of multifocal—and they are not foremost among the world's spectacle makers. The overall figure of world production in this area for 1982 would probably be mind-boggling, particularly when we consider that about one third of the school-aged children in America require eyeglasses for near or far vision, and that, after the age of 45, almost all individuals need some sort of reading lenses.

But after all that research I still do not know who was actually the *first* person to invent spectacles. But I do tender my grateful thanks to the many who have worked and are still working to perfect better aids for imperfect eyes.

29 Ways to Get Your Children to Eat More Vegetables

If your children have decided they don't like vegetables, it may take a bit of planning to get them to eat some.

by C. L. Sanders

"Johnny, you must eat your carrots. They are good for you."

"Debbie, unless you finish your greens, you can't have any ice cream for dessert."

Generation after generation of parents have waged battles such as this with their children regarding the eating of vegetables. While most children dislike vegetables, parents know that they provide many valuable nutrients. Some are high in vitamins A and C. Some supply minerals such as iron and calcium. Many contribute to B vitamin intake, and contain significant amounts of fiber.

Nutritionists tell us that fiber is dangerously lacking in the average American diet, and urge us to eat more vegetables. But child care experts warn us not to force children to eat foods they dislike.

What is a parent to do?

Fortunately, there are a number of techniques parents can use to get their children to eat more vegetables and vegetable nutrients.

C. L. Sanders is a free-lance writer with an interest in nutrition. She lives with her husband and twin sons in Merrimack, New Hampshire.

One of These Techniques Will Work for You

Not all of these techniques will work with every child. But you can count on at least one of these methods working. And while a method may not succeed in getting a youngster to eat large quantities of vegetables, one tablespoon of vegetables eaten four times a day is worth more than a quarter cup of vegetables left on the dinner plate.

1. Take advantage of the fact that everyone is hungriest at the beginning of a meal. Make your first course a fresh garden salad or a bowl of vegetable soup.

2. Serve vegetables as a main

PHOTOGRAPH BY ROBERT WRIGHT

Most important of all, be sure to show pleasure when you yourself eat vegetables. If you grimace over beets, baby will also learn to.

course. That makes them harder to avoid. You can stuff vegetables such as acorn squash, eggplant, and tomatoes. Or serve ratatouille, a combination of eggplant, zucchini, and tomatoes.

3. Chances are your children already like the vegetable sauce on spaghetti and pizza. Top pizzas with green peppers, mushrooms, or onions.

4. Tacos and chili are excellent hiding places for shredded carrots, whole kernel corn, chopped celery, and so on. If the dish is tasty enough and you chop the vegetables finely enough, you can get almost anything down your family this way.

5. Some of the vegetables your family finds least objectionable you can even chop and add to burgers.

6. If your child likes eggs, add vegetables to omelets. Serve these as a main course at dinner or as a sandwich filling at lunch. Or add slices of zucchini, bits of tomato, even bean sprouts, to them.

7. Quiche and soufflés often include vegetables. There are so many varieties that your family will surely enjoy some.

8. Hide vegetables in bread and pasta. Use green noodles, which contain spinach. Or bake zucchini bread, pumpkin bread, and carrot muffins. For hardcore vegetable haters, rename these dishes.

9. Make your salads major productions. A bowl of lettuce with a slice of tomato is basically boring. Toss in celery leaves, diced raw beets, garden fresh peas, and other appropriate types of vegetables. Be sure to offer everyone his favorite dressing.

10. Let your children make their own salads. Set up a salad bar at a side table or on a Lazy Susan. You can even introduce such oddities as chick peas here.

11. Serve vegetables for lunch, as well as dinner. Add chunks of green pepper, onion, and celery to your sandwich fillings.

12. At the very least, always serve sandwiches with a slice of tomato and some lettuce. Every little bit helps.

13. There's nothing like soup on a cold day. Just make sure it's a vegetable soup. The creamed vegetable soups taste extra good when served in a mug for a change of pace.

14. Have you ever tried serving vegetables for breakfast? They're just as nutritious at the beginning of the day as at the end. Potato pancakes and corn fritters make a nice change from the more traditional pancakes and waffles.

15. You can even serve vegetables for dessert. Carrot cake and pumpkin pie satisfy the sweet tooth as well as their less nutritious counterparts.

16. Make vegetables part of your family traditions. If you always serve yams on Thanksgiving Day, your family may develop positive feelings for them.

17. Before dinner, serve tomato juice with lemon juice and a little salt added. Or use a tomato-based vegetable juice. Serve with a celery stick stirrer.

18. Add finely chopped raw parsley to everything. Just a tablespoon of parsley provides 6 percent of the U.S. RDA for vitamin A and 10 percent of that for vitamin C.[1] Remember, it all adds up.

19. Try a little child psychology. Reserve the first asparagus of spring and the fresh-picked ears of corn for adults only. You may find your children asking for them.

20. If you own or cultivate land, encourage your children to grow vegetables. Nobody can resist tasting something they've labored over.

21. Cook Chinese-style. Stir-frying minimizes nutritional loss, the vegetables are tasty because they are seasoned, and the more exotic vegetables, such as snow peas in pods, may be less objectionable to your children.

22. Many vitamins are water soluble. Save the water left from cooking vegetables and the water drained from canned vegetables. Use it as a base for homemade soup. Or use it in place of plain water when you dilute canned soup or make such dishes as chili.

23. Cook vegetables for taste appeal. Which is more appealing to you? Carrots boiled in salted water and served plain, or carrots cooked and then mixed with pineapple chunks and slightly thickened sauce? One reason vegetables have a bad reputation is because so many of them are unimaginatively cooked and served. Marinate green beans in an oil and lemon juice dressing. Sauté carrots in butter, lemon, honey, and paprika. Or take advantage of the many tasty frozen vegetable combinations.

24. All vegetables are nutritious, but some are more so than others. When it is hard to get vegetables down your children, you must make the most of each tablespoon by emphasizing those vegetables that have the most to offer. Collards, for instance, offer both vitamins A and C in large amounts. Parsnips, winter squash, green peas, and lima beans all offer more fiber per cup than do many other vegetables.

25. Keep an eye out for carotene content when you shop. The darker the carrots, the more vitamin A they provide. Red sweet peppers have more of both vitamins A and C than do green ones.

26. Cook vegetables to minimize nutrient loss. Don't boil three stalks of broccoli in a gallon of water. Steam, bake, or stir fry when you can.

27. Never add baking soda to the water you cook vegetables in. It destroys vitamins.

28. If you have a child too young to hate vegetables yet, avoid the problem. Serve a wide variety and prepare each for taste. Most important of all, be sure to show pleasure when you yourself eat vegetables. If you grimace over beets, baby will also learn to.

29. Last, but not least, don't panic. Many of the nutrients vegetables offer are available elsewhere. Half an orange cantaloupe provides more vitamin A than one-half cup of cooked carrots or spinach.[2] One pear provides almost twice as much fiber as one-half cup boiled chopped broccoli and almost four times as much as one-half cup green beans.[3] Even folacin (folic acid), named after foliage because it's found in green leaves, can be found elsewhere. One medium banana contains more of this nutrient than does one-half cup of cooked spinach.[4]

REFERENCES

[1] U.S. Dept. of Agriculture, *Nutrition Labeling, Tools for Its Use* (1975), p. 24.

[2] *Ibid.*, pp. 22, 25, 27.

[3] Barbara Kraus, *The Barbara Kraus Guide to Fiber in Foods* (Signet, 1975), pp. 23, 41, 145.

[4] The Editors of Consumer Guide, *The Vitamin Book* (Simon and Schuster, 1979), pp. 109, 110.

Loving Without Liking

Believe it or not, it's possible to love people, even though you may not actually like them.

by Annie Laurie Von Tungeln

"We *all* have mail this morning," someone remarked slyly on the elevator as we were going up to our apartments. That "all" was significant; it meant that the missive came from management. Without so much as opening it, I said, "Oh, my, are they raising our rent *again?*" (It was really a notification that the elevators were to be inspected in compliance with the city's new safety regulations, which meant nothing worse than a brief period without service.)

Even before I stepped off the elevator, I thought to myself: That petulant remark was uncalled for. Moreover, it told anyone who cared to listen something about me. It proclaimed negative thinking. I should have been grateful, as indeed I was, that management was looking out for the tenants' safety.

I recalled reading only a few days before that there are two types of persons: those who think of life as a privilege and those who find it a problem. I've long been accustomed to line up on the life-is-a-privilege side. Could I, I asked myself, have switched places now that I am a septuagenarian. I'd better take stock. This is no time to turn from positive to negative thinking and actions.

Some of the characteristics of persons who think of life as a problem readily come to mind: suspicion, extreme caution, fear, a feeling of insecurity and futility. It has been said that for some folks life is a potential ambush. We may become like the man who moved to a farm that had two windmills but took one down for fear there wouldn't be enough wind to run both of them.

The characteristics of folks who find life a privilege are equally obvious: enthusiasm, hope, trust, eagerness to participate, serenity, a feeling of relaxation and security.

Life May Be a Privilege or a Problem

I can't ensure myself completely against the nitty-gritty of living—it's best, no doubt, that I can't. Nor can I close my eyes to the fact that in some respects it becomes nittier and grittier as I advance in years. But there are many things I can do to make certain that life continues to be a privilege rather than a problem.

Here are a few of them.

1. Trite as it may sound, it is important for me to count my blessings.

We older persons have cause for rejoicing when we remember that, compared to previous generations, we possess marvelous bonuses not only in lengthened life span but in improved quality of living that comes in part from advancing scientific knowledge and in part from increasing concern on the part of society.

Leisure is another blessing that accompanies growing older. But "it's what we fill it with that counts," as someone has said. It takes imagination and creativity to make good use of leisure. It can be a time for growing. It can be a time for exploring and learning, for expanding our cultural and artistic outlook, for serving others and "living hugely" in general. I used to think that I would be surfeited with time when I retired, but in reality I keep so busy with

---

Annie Laurie Von Tungeln is a free-lance writer in Tulsa, Oklahoma. At one time she taught Spanish at Central High School in Tulsa, and later worked as supervisor of foreign languages in the Tulsa public schools. She has been listed in Who's Who in American Education, Who's Who of American Women, *and* Dictionary of International Biography. *She has had articles published in many American magazines, and has received several first-place awards for feature articles in the National League of American Pen Women biennial contests.*

PHOTOGRAPH BY TOM RADCLIFFE

worthwhile occupations that I wonder sometimes now how I ever held down a job.

2. If life is to be a privilege, I must respect my possibilities—such gifts and talents as God has given me.

Most persons who belittle themselves and their abilities seem to find life a problem. In a paper entitled "Desiderata" dated 1692, found in old Saint Paul's Church, Baltimore, the unknown author gives this good advice: "Beyond a wholesome discipline, be gentle with yourself. You are a child of the universe, no less than the trees and stars; you have a right to be here." In their book, *How to Be Your Own Best Friend,* which was on the best-seller list several years ago, Mildred Newman and Bernard Berkowitz, the psychiatrist-authors, suggest that we should sometimes think in terms of our victories, the times when we were "wise and kind," instead of dwelling always on our defeats.

Talents Bring Responsibility

But a talent isn't just something to be proud of or to gloat over. It brings with it responsibility. Although my talent for writing isn't vast—I've never written a best seller and probably never shall—using it to the best of my ability is a joy and privilege. That doesn't mean I should be pious or saccharine, closing my eyes to the existence of sorrow and evil. It does mean I must write with integrity just as I try to live with integrity. Every word must be constructive. According to Author Marjorie Holmes, abuse of talent—she is speaking specifically of writing, but her statement applies to other fields—is worse than not using it at all.

3. One of the best ways to make life a privilege comes through love. Love is the final test.

As a young woman, I hoped that in what then seemed the dim, distant future, I would become a kind, gentle old lady. But I find that aging doesn't automatically bring sainthood. Unless we make a genuine effort to improve, our characteristics remain much the same as they've always been—only more so. If we were talkative in youth, there's the disconcerting probability that unless we guard against it, we shall be garrulous in old age.

For years I was perplexed and worried because, although I like people in general, now and then I came across a person I didn't like, sometimes for no good reason. I dreaded the prospect of coming to the end of life without a heart brimful of affection for everyone. I received much help with my problem from something I read. Dr. Bryant M. Kirkland, the minister-author of the book *Living in a Zigzag Age,* differentiates between liking and loving. In the chapter entitled "How to Love People You Don't Like," he defines love as "generosity in action" and as "constructive action in another's behalf." He points out that we can be so "filled with the love and marvel of God" that we reflect it to others, whether we *like* them or not.

A Theory That Works

I tried in a small way to put his theory into practice and found that it works. I was embarrassed more than once because an acquaintance, no longer living, used to single me out in groups and ask personal questions about everything, from my clothes to the activities of an apartment neighbor whom she knew slightly. The entire inquisition was carried out in such a loud voice that it couldn't fail to call attention to us.

She and I belonged to the same club, an organization of several hundred women. At one luncheon we were to be seated at tables for six. Four friends and I had arranged for a table with the hope that we would be allotted a congenial single. When we entered the lobby of the hotel where the luncheon was to be held, there sat Mrs. Jones (not her real name) quite alone, as she always was. I suggested to my closest friend in the group that we invite the lonely woman to make a sixth at our table. "OK," she assented, "provided you sit next to her."

Mrs. Jones accepted eagerly, with the obviously feigned explanation that she was expecting to meet a friend but wouldn't wait any longer. Her apparent joy in joining our group was rewarding to all of us, I think. I can't honestly say that I *liked* her much better than I had before, but I did feel a glimmer of love and a great deal of kindliness. That day I saw her as she really was, an aged woman whose loneliness had turned into a consuming curiosity what may in her earlier years have been no more than a healthy interest in others.

Genuine caring is a form of love.

There's a saying, "Age is a state of mind." To a degree, that is rationalization. Nevertheless, there's a lot of truth to it.

You're 65! So What?

by Virginia Hansen, R.N.

The trouble with the future is that it usually arrives before we're ready for it. Suddenly we're dusting off a new nameplate for our drooping chests. It says "Senior Citizen," and we don't like it. This can't be me, we think. I'm much too young, too full of vigor, to be in this category.

We attend a class reunion and find ourselves staring in amazement at our bald, obese, and wrinkled classmates. Then imagine our surprise when we pass a full-length mirror and have to conclude, to our chagrin, that there isn't that much difference between them and ourselves. The facts hit home. We are fat, bald, wrinkled senior citizens before we want to be.

How did we get where we are?

We got this way with no effort; just by living one day at a time. Right?

Recently a 65-year-old man met a classmate whom he had not seen since grade-school days. They recognized each other instantly.

"Well, well, how are you?"

"Pretty good for a man your age!"

It happens to all of us who get to be senior citizens.

Actually, some arrive at this station in life with faces glowing with enthusiasm. Others get there with misery written all over their furrowed brows. Why the difference? There are many reasons, of

Virginia Hansen, R.N., has been a freelance writer for thirty years, having had more than two hundred articles and stories published. She is a graduate of St. Helena Sanitarium and Hospital Training School, in California, with lifetime teaching credentials in nursing education. Her hobbies are people, art, writing, traveling, and Bible study.

PHOTOGRAPH BY H. ARMSTRONG ROBERTS

course, but does life's portion of years have to have so many diverse effects? Are there guidelines that we can follow that will make our life train whistle cheerfully when we get to our sixty-fifth station instead of sending forth a mournful sound? How do we grow old beautifully? I've heard it's possible, and I've seen some fine examples.

Growing Old Beautifully

It comes with a lifetime of good habits—good nutrition, plenty of exercise, fresh air, sunshine, water, rest, laughter, trust in God, generosity, self-forgetfulness.

Dr. Theodore Klump, member of the American Medical Association Committee on Aging, says, "Proper diet, exercise, and rest preserve energy. Purposeful activities maintain a high degree of motivation. We must do everything we can, as we grow older, to resist the inclination to slow down the tempo of our lives. If we just sit and wait for death to come along, we will not have long to wait."

Reunions and evaluations are good shock therapy for us. They cause us to take stock of our situation and help us plot our future in view of our present health and life style. Possibly we can oil our squeaky engines with some lubricant close at hand. Time marches on, leaving its wear and tear, but perhaps there are some ways to repair some of it.

Benjamin Franklin figured it out as he took a close look at himself. "Being arrived at 70 and considering that by traveling farther in the same road I should probably be led to the grave, I stopped short, turned about, and walked back again; which having done these four years, you may now call me 66." It takes a bit of courage to think younger when aches and boredom drag us down, but it's worth it!

Preserved in Sugar or Vinegar?

Sugar and vinegar are both preservatives, so it seems to boil down to whether we want to be in a pickle or a jam. Will it be sugar or vinegar that permeates our lives? The choice is ours. Can we, like Benjamin Franklin, turn back the calendar and change our course toward the grave? It's worth a try, isn't it?

Poor health and boredom seem to be the chief complaints of the seniors I see. Treating each individual health symptom or discomfort with regular visits to a good doctor simplifies that problem. Boredom is something else. We must have something to live for, something to tumble us out of bed on a stormy morning or a bright summer day. That's still necessary even though we're retired from the alarm clock. We all need a goal in life to make living worthwhile. It's so easy to drift along aimlessly through each day, week, month, year—until one day, with great shock, we realize it's a life we've drifted through without accomplishing much for others.

Others! That word, I've found, is the crux of survival for me as a senior citizen. Somehow my self-pity and loneliness diminishes when I think of others more burdened than myself.

We must do everything we can, as we grow older, to resist the inclination to slow down the tempo of our lives too much.

Energetic Maurice Lee has shown how much one able retiree can accomplish by offering unselfish leadership and lifetime experience to others younger and less blessed. Through work for civic improvement, by counseling alcoholics, and encouraging teen-agers, he has shown a heart soft as a marshmallow in spite of a brusque exterior. Not even his harshest critics have ever accused him of trying to get anything for himself out of his enormous efforts, except satisfaction. All Maurice's struggles are in behalf of others.

Seventy-five years old! So what? He was voted Man of the Year by the Delaware State Chamber of Commerce and is one of his State's most beloved citizens.

To combat boredom, consider mind-stretching activities available through the mail. Creative writing courses, for instance. We may never earn a living by writing, but the outflow of creativity will release a joyful energy that will invigorate. After thirty years of publishing stories and articles, I was asked to teach a class in creative writing for our local adult school. It was one of the most stimulating experiences of my life. I shall never forget the students, and the thrilling explosion of ideas generated by people of many ages, professions, and persuasions of thought.

You Have Something to Share

If you are 65, doubtless, if you analyze your experiences, your dreams, you will find you have something to share.

Have you been a "doodler"? You'd love to draw or paint, but you're sure you can't even draw a straight line? Join the crowd. Of the many art students I have taught, most have felt the same way. There are so many tricks and shortcuts to learn. The learning process provides a stimulating excitement, even if you never sell a picture. Look into adult education classes. You may find a bonanza of good things just meant to relieve your boredom.

Do you like to work with others for others? There are volunteer service needs everywhere. Foster grandparents, counselors, sympathetic listeners, teacher's aids—all these areas are crying "Help!"

Do you need help in self-improvement? At 65 are we battle-scarred veterans of a lost war against time? What do we do with time's scars?

Cosmeticians have provided means of hiding the wrinkles and gray hairs, but there must be a better road. Misguided women in teen-age fluff, trying to be forever young—all the fretting, fussing, stewing, lying, dyeing, all the tension created, mislead no one but themselves.

Someone has said that we can't do anything about the face we're born with, but by the time we're 40 the heart should shine through a kind face beautifully.

I wish I had the eloquence of the one who said, "Youth is not a time of life; it is a state of mind. Nobody grows old by merely living a number of years; people grow old by deserting their ideals. Years may wrinkle the skin, but to give up enthusiasm wrinkles the soul. Worry, doubt, self-distrust, fear and despair—these are the long, long years that bow the head and turn the growing spirit back to dust. You are as young as your faith; as old as your doubt; as young as your self-confidence, as old as your fear; as young as your hope, as old as your despair. In the central place of your heart, there is a recording chamber; as long as it receives messages of beauty, hope, cheer and courage—so long are you young. When the wires are all down and your heart is covered with the snow of pessimism and the ice of cynicism, then, and then only—are you grown old."

Sneezes, Wheezes and Allergies

Allergies are caused by a malfunction of the body's protective system.

by Deane Lappin

Are you allergic? If so, you're one of the 35 to 40 million Americans who suffers from at least one significant allergy. It may surprise you to learn that allergy is the reason for most medical office visits and accounts for more school absences than any other childhood disease.

An allergy is a built-in mistake within the body's complex defense system. It works this way: Whenever some foreign material, called antigens by doctors, enter the body, the body defenses produce a vast number of microscopic molecules called antibodies, which circulate in the bloodstream. Sometimes the system malfunctions, and the body reacts to something harmless, such as milk or pollen, as if it were being invaded by a dangerous virus or bacteria. Allergic individuals form special antibodies, called IgE, to "defend" themselves from harmless substances, or allergens.

Hay fever, hives, asthma, and exzema are typical allergic reactions occasioned by these special antibodies. These conditions often overlap and a person then has what we call multiple allergies.

Allergies tend to "run in families," but what is inherited is a tendency to allergy, not an allergy to a particular substance.

Deane Lappin is a registered nurse who received her B.S. degree from Cornell University. She has had considerable clinical experience in the field of allergies. She lives in Hackettstown, New Jersey, with her husband and two sons.

Who is allergic and who is not? It's not always easy to decide. All sneezes are not hay fever and all wheezes are not asthma. The symptoms may be similar, but effective treatment depends upon distinguishing the one from the other.

New tests have been developed to assist in making the correct diagnosis. One, called the PRIST test, uses a sophisticated technique to measure the minute amounts of IgE circulating within our bloodstream. Measuring one molecule of this particular antibody in a trillion molecules of blood serum is like finding two lumps of sugar dissolved in all of Lake Ontario.

Dr. S. G. O. Johannson, a discoverer of IgE, believes PRIST can be used to predict allergies before they actually appear. His studies indicate that allergy-susceptible infants produce abnormally high IgE levels early in their lives. PRIST will single out these high-risk children within a few days of their birth.

Early diagnosis means that measures can be taken to delay, or even prevent, allergic problems. For example, investigators have found that a regime of exclusive breast-feeding combined with a carefully monitored diet for the mother will actually lower an infant's IgE level.

The PRIST test does have limitations. It can help a physician decide whether a patient does or does not have an IgE-mediated allergy, but it can't identify the trigger substances, or allergens, causing the symptoms.

How can we determine what we're allergic to? Sometimes it's easy. If my mouth swells and I break out in hives while eating a bowl of strawberries, I'm obviously allergic to strawberries.

Unfortunately, the problem is rarely this simple. For most allergy sufferers, there are many allergens contributing simultaneously and sequentially to the symptoms. Someone allergic to molds and mildew, for example, may get through the winter without difficulty, but be unable to cope with the added insult of spring pollens.

Dr. William P. King, assistant professor in the department of otorhinolaryngology at Baylor College of Medicine, Texas, describes this common problem by drawing an allergic balance scale. "On one side," he says, "imagine lots of little boxes all piled up. These are the allergic insults that are affecting a particular patient at any specific time. On the other side of the scale is a big box. This is the patient's tolerance level; how much he can take before having a problem."

If the patient's allergy load is out of balance on the wrong side, the physician will need to look over the pile of little boxes. Like a good detective, he will try to narrow down the list of likely suspects. "My aim," says Dr. King, "is to take off as many boxes as necessary, until the patient's tolerance level outweighs his allergic load."

For almost a century, physicians have relied on skin testing to identify allergens, the little boxes on the balance scale. Testing methods vary, but all of them do the testing by introducing an

PHOTOGRAPH BY TOM RADCLIFFE

allergen into the body. Skin testing is a deliberately-induced small scale allergic reaction.

The interpretation of the test is largely dependent on the skill and experience of the physician. Results are affected by the potency of the extracts, the amount used in the test, the patient's age, and the reactivity of an individual's skin.

Skin tests are not foolproof. There are so many variables involved that Dr. Richard Fadal, allergy consultant at the Waco Heart Clinic, describes skin tests as "inexact and unreliable." Approximately 30 percent of the normal population will have falsely positive reactions when given such a test. For these people, the test will find an allergy that is not there. But skin testing rarely overlooks an allergy that does exist. It will find them at least 90 percent of the time. For this reason, skin tests remain the tried-and-true method of identifying allergens.

But some people can't be skin tested. The procedure is too traumatic for very young children, too unreliable in patients with very reactive skin, and too dangerous for those who are exceptionally allergic. For these patients especially, a blood test called RAST may be most appropriate.

RAST measures the amount of IgE antibody specific for a particular antigen, or foreign body. Antibodies and antigens are like pieces of a jigsaw puzzle; only certain pairs fit together to produce an allergic reaction. A RAST screening profile can test sixteen different suspected substances using a mere one third of an ounce of the patient's blood. The test is safe, convenient, and almost painless. It is also expensive.

Although RAST has been in use for about ten years, there is considerable controversy over its reliability. Several studies indicate that it is less sensitive than skin tests. Dr. Franklin Adkinson, Jr., assistant professor of medicine at the Johns Hopkins University School of Medicine in Baltimore, says that RAST may miss the diagnosis with as many as 20 percent of the allergens used, compared to the 10 percent that will be missed by skin tests.

But studies also show that RAST is less likely to find an allergy that isn't really there. Dr. Donald Nalebuff, chief of the department of immunology at Holy Name Hospital, Teaneck, New Jersey, thinks this is one of RAST's unique advantages. "Greater use of RAST would mean that fewer patients are subjected to unnecessary allergy treatments," he says. "The test is magnificent. I couldn't practice allergy without it."

Both skin tests and RAST are better at pinpointing airborne allergens, such as pollens and animal danders, than food allergies. This is because very few food reactions are allergies; most are actually intolerances or hypersensitivities. Researchers at the National Asthma Center in Denver have found that food allergies occur most often in young children and are much less common than people think.

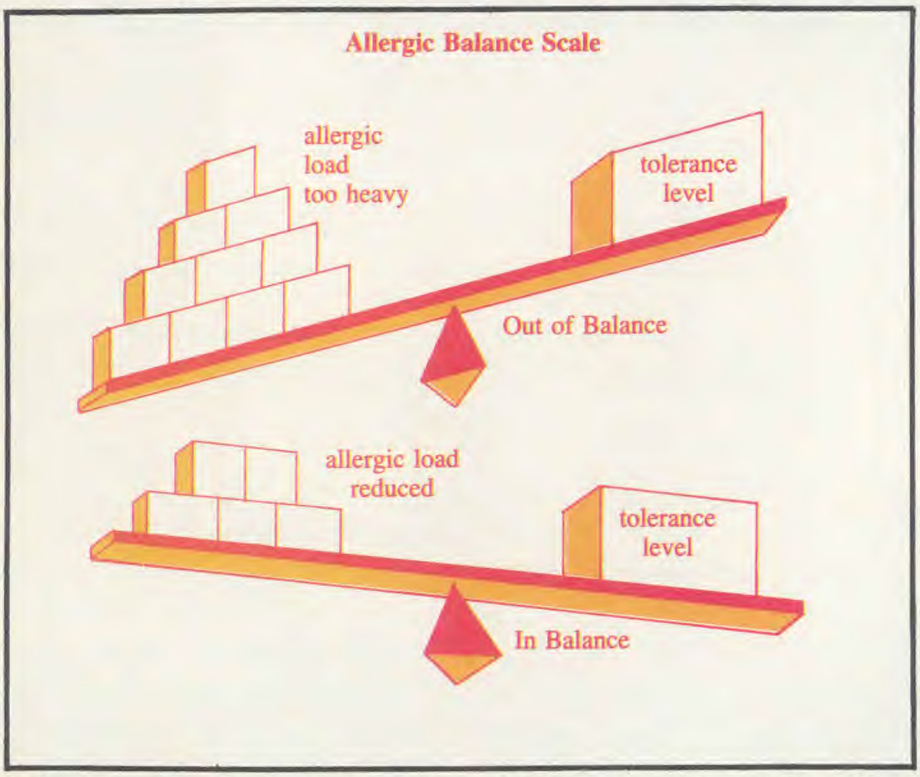
True allergic reactions to foods are easy to identify because, as was the case with the strawberry allergy mentioned earlier, the symptoms are dramatic and immediate. The symptoms of a food intolerance, however, are usually delayed and may be as vague as irritability, restlessness, fatigue, or headache.

Intolerances to foods, chemicals, and other irritants are diagnosed with the elimination-challenge test. The patient may be put on a special diet, for example, in which suspected foods are first eliminated and then reintroduced, one at a time. The goal is to provoke the patient's symptoms under controlled and observable conditions. But the regime can be very tedious and time-consuming. Imagine how restricted your diet would have to be to eliminate any of the hundreds of hidden substances contained in processed food.

The perfect allergy test is safe, inexpensive, painless, fast, sensitive, and specific. The perfect allergy test doesn't exist.

But don't despair. In truth, no test ever makes a diagnosis. All tests have equivocal zones and all must be interpreted within a total picture of the individual patient's medical history, health, and symptoms. One extra pound doesn't necessarily make us overweight and one extra IgE molecule doesn't make us allergic. Tests provide an important piece of information but not an answer.

Medicine is both a science and an art. The art is in the gray areas and it involves putting together all those separate pieces of information. In allergy, as in all fields of medicine, it takes good judgment and clinical experience to arrive at a diagnosis.



BIBLIOGRAPHY

Allergy Unmasked, A New Understanding (Woodbridge, N.Y.: Medical Education Dynamics, 1979).

"Children and Allergies: Some Misconceptions," *New York Times*, Dec. 12, 1979.

Lee, K.J., M.D. *Essential Otolaryngology*, 2nd ed. (New York: Medical Examination Publishing Co., 1977).

Nalebuff, Donald J., M.D. and Richard G. Fadad, M.D. "Atopic Allergy, When Are RAST Assays Appropriate?" *Diagnosis*, June 1980, pp. 33-39.

Wraith, D.G., and others. "Recognition of food-allergic patients and their allergens by the RAST technique and clinical investigation," *Clinical Allergy*, vol. 9, pp. 25-36.

Watch the ball—and your eyes

The number of eye injuries from tennis, racquetball, and squash has increased dramatically with the increased popularity of these indoor-outdoor sports, according to the National Society to Prevent Blindness.

"Racquet sports injuries have more than doubled in the past five years," Virginia Boyce, executive director of the society, stated recently. About 35,000 sports-related eye injuries occur each year, and racquet sports are responsible for nearly 10,000 injuries—up from 5,000 in 1975.

In addition, more than 90 percent of all sports eye injuries could be avoided if individuals followed eye safety practices.

"It is important that players use protective eyewear," Mrs. Boyce says. "A tennis ball that normally feels rather soft becomes a fast-moving projectile that can reach speeds of up to 100 miles per hour and can seriously damage the eye. And the smaller the ball, the greater the potential for harm to the eye."

Mrs. Boyce recommends that racquet players wear either safety eyeguards or industrial-quality safety glasses. Both are available with corrective lenses for players who wear prescription glasses.

Any protective eyewear should be capable of absorbing the impact of the ball, and wearing it may even lead to better performance. "It helps the player be less conscious of his eyes and leads to an improved game. Such protection can only be a plus to your eyes and should be used regularly by both the seasoned and the casual player."

—*Health Insurance News,* 1850 K Street NW., Washington, D.C. 20006.

Taking care of your teeth

Too often, older people—especially those who wear dentures—feel they no longer need dental checkups. And because the idea of preventive dental care dates back only to the 1950s, most people over 65 were not trained at an early age to be concerned with preventive care of the teeth.

The most important part of good dental care is knowing how to clean your teeth. Brush them on all sides with short strokes, using a soft-bristle brush and any free-style brushing stroke that is comfortable. Pay special attention to the gumline. Brushing your tongue and the roof of your mouth will help remove germs and prevent bad breath. It is best to brush after every meal, but brushing thoroughly at least once a day, preferably at bedtime, is a must. See your dentist if brushing results in repeated bleeding or pain.

Some people with arthritis or other conditions that limit motion may find it hard to hold a toothbrush. To overcome this, the brush handle can be attached to the hand with a wide elastic band or may be enlarged by attaching it to a sponge, styrofoam ball, or similar object. Those with limited shoulder movement might find brushing easier if the handle of the brush is lengthened by attaching a long piece of wood or plastic. Electric toothbrushes are of benefit to many.

Careful daily brushing can help remove plaque, a sticky, colorless film that forms on the teeth and contains harmful germs. If the plaque is not removed everyday, it hardens

ILLUSTRATION BY TOM DUNBEBIN

into tartar, a substance that can be removed only by a dentist or dental hygienist. The buildup of plaque can lead to gum disease, in which the normally pink gums begin to redden, swell, and occasionally bleed.

Even though brushing is the most important means of removing film and food particles from the mouth, there are many places a toothbrush cannot reach. To remove germs and pieces of food from between the teeth and near the gumline, dentists recommend daily flossing with dental floss. A dentist or dental hygienist can instruct you in its proper use.

If you have dentures, you should keep them clean and free from deposits that can cause permanent staining, bad breath, and gum irritation. Once a day, brush all surfaces of the dentures with a denture-care product. Remove your dentures from your mouth for at least six or eight hours each day and place them in water (but never in hot water) or a denture-cleansing solution. It is also helpful to rinse your mouth with a warm saltwater solution in the morning, after meals, and at bedtime.

Partial dentures should be cared for in the same way as full dentures. Because germs tend to collect under the clasps of partial dentures, it is especially important that this area be cleaned thoroughly.

Dentures will seem awkward at first. When learning to eat with dentures, you should select soft, nonsticky food. Cut food into small pieces and chew slowly, using both sides of the mouth. Dentures tend to make your mouth less sensitive to hot foods and liquids, and less able to detect the presence of harmful objects such as bones. If problems in eating, talking, or simply wearing dentures continue after the first few weeks, your dentist can make proper adjustments.

Even with good home oral hygiene, it is important to have yearly dental checkups. These checkups not only help maintain a healthy mouth but are necessary for the early discovery of oral cancer and other diseases. Mouth cancer often goes unnoticed in its early and curable stages. This is true in part because many older people do not visit their dentist often enough and because pain is not an early symptom of the disease. If you notice any red or white spots or sores in the mouth that bleed or do not go away within two weeks, be sure to have them checked by a dentist.
—U.S. Department of Health and Human Services.

Family-life collapse reaches crisis proportions

The collapse of family life in the United States has reached crisis proportions, claimed Dr. Harold Voth, staff physician at the Menninger Foundation.

In an interview with Dr. Voth, chief of staff at the Veterans Administration Medical Center in Topeka, Kansas, he attributed this collapse to the divorce rates that are pushing 40 to 50 percent, the illegitimacy rates that are pushing 20 percent, and the high inflation rate.

He continued that families are broken by today's high inflation because both parents are often forced to work outside the home and must leave their preschool children in day-care centers, which, he said, are often less than adequate. He stated millions of America's children are being neglected and abandoned.

Dr. Voth said that he sees this trend worsening. He explained that children who are reared in homes where the parents are often gone and not able to spend much time parenting are ill-prepared psychologically to rear their own children.

He added that the family physician is strategically well placed to bring his constructive influence to bear on the family. This is because the family physician knows the family as a unit and its particular problems. Dr. Voth said that the family physician can detect strains within the family and offer help.

—News release, American Academy of Family Physicians, 1740 West 92d Street, Kansas City, Missouri 64114.

Home insulation may promise false comfort

For cutting heat and energy loss, the amount of insulation in a building is not as important as being sure that there are no cracks and holes in the sheathing, and proper building design. If there are problems with these factors, adding additional insulation to an already sufficiently insulated attic, for example, will do very little to cut down heat loss, studies have indicated. Dr. Jay McGrew, president of Applied Science and Engineering, has stated that "the current faith in insulation may be based on erroneous assumptions, and the home owners pouring money into the burgeoning insulation industry won't see the savings they are promised."

In the area of building material, wood has not yet been improved upon. An insulating value furnished by a 16-inch thickness of wood wall will require 20 feet 8 inches of concrete wall, approximately 8 feet 3 inches of brick, 11 feet 11 inches of stone wall, and 2,381 *feet* (this is not a mistake) of aluminum siding. Obviously, aluminum siding should not be used with insulation in mind.

—Adapted from Roy L. Wilson, *Build Your Own Energy-saver Home.*

Quick action key to replantation surgery

Successful replantation surgery—the reattachment of severed body parts—is largely dependent upon the care the victim receives at the accident site.

Amputations can occur almost anywhere. It is vital that the public knows the proper action to take when an amputation occurs. If a victim can be transported to a hospital in thirty minutes or less, the severed body part(s) should be wrapped in a clean cloth and taken with the patient directly to the hospital.

If the victim cannot reach a hospital quickly, there are six basic steps to follow at the scene of an amputation or crushing injury.

1. Rinse all parts with water.
2. Moisten a towel or clean cloth with water and wrap it around the severed part(s).
3. Place the towel-wrapped parts in a clean plastic bag and seal.
4. Keep the bag cool by placing it over ice. Do not pack it in ice, as the part must not freeze.
5. Be sure to gather all the pieces, however mangled or damaged. The smallest piece of tissue may be important as a skin graft.
6. The patient should have nothing to eat or drink on the way to the hospital.

A clean amputation, or even a crushing one, is more likely to survive replantation than a limb or digit that is torn off. But all severed parts should always be transported with the victim.

Transport time is critical. The time limit varies with each individual and each specific accident, but the survival rate drops as the time between the accident and replantation surgery increases.

Victims who have had their arm or leg amputated require surgical attention within three to six hours. Other body parts can survive even longer if cared for properly. For example, a severed hand can be replanted successfully twelve to eighteen hours after the accident, and severed fingers and toes can be replanted as much as twenty-four hours later.

The age of the patient also plays a role in determining the chance for a successful replantation. Patients up to 20 years old have excellent prospects for replantation surgery.

—News release, American Society of Plastic and Reconstructive Surgeons, Inc., 29 East Madison Street, Suite 800, Chicago, Illinois 60602.

Booklet on children's sports injuries

Sports Injuries in Children, a new informational booklet to aid in the prevention of sports-related medical problems, has been published as a public service by Hoffmann-LaRoche Inc., Nutley, New Jersey.

For the lay reader, it is based on a work originally written for the medical profession by William A. Sinton, M.D., at Columbia University. With separate sections on the younger and older child, the young female athlete, the disabled child, and the chronically ill child, the publication provides information on the prevention of a wide variety of injuries.

The fifteen-page booklet is being made available to parents, educators, athletic-program coordinators, coaches, summer camps, community organizations, health-and-fitness promoters, and young athletes. Copies may be obtained, free of charge, from Hoffmann-LaRoche Inc., Public Relations Department, 340 Kingsland Street, Nutley, New Jersey 07110.

BOOKSHELF

Reviewing, listing, or describing of books does not constitute endorsement.

Appreciation—What Every Woman Still Needs, by Ruth McRoberts Ward. Baker Book House, Grand Rapids, Michigan, 1978, 136 pages, $3.45.

Unhappy wives verify that financial security and lack of arguments do not necessarily indicate satisfying relationships. Conversely, silence and security may actually hinder communication. Effective communication, involving a growing understanding and appreciation of the whole person—background, feelings, goals—is what this book is all about.

The author, who is a marriage counselor, wife, and mother of four, uses a number of case histories, including incidents from her own marriage, to illustrate that women do indeed need more appreciation than they usually get from their husbands. The spiritual emphasis throughout the book increases its value to the Christian wife.

Probably any woman will identify with one or more of the restless and troubled wives whose stories are told, and if she is persuasive, she might even get her husband to read it.

Reviewed by
Bobbie Jane Van Dolson

The Encyclopedia of Organic Gardening, staff of *Organic Gardening* magazine, Rodale Press, Emmaus, Pennsylvania 18049, 1978, 1,236 pages, $21.95 hardcover, $26.95 deluxe hardcover.

In this completely revised, updated version of one of Rodale's all-time best sellers you will find more than 1,500 entries devoted to the identification, cultivation, and use of specific fruits, grains, nuts, vegetables, and ornamentals. Also included are sections covering all the basic elements of organic gardening. The emphasis is on practical how-to's. For example.

Companion planting—how to plant your garden so that flowers, vegetables, and herbs benefit from one another.

Composting—how to make compost quickly by encouraging natural biological processes at work in soil and plant debris.

Greenhouses—how to construct and maintain an energy-efficient greenhouse.

Insect control—how to identify more than 75 garden pests and control them with organic materials.

Special attention is given to recent developments in many areas, such as livestock, indoor and outdoor horticulture, ecological landscaping, urban gardening, and home food processing. Like the original edition, the new *Encyclopedia of Organic Gardening* shows its readers ways to restore the fertility of their land, grow more bountiful crops, and become more self-reliant.

Power Handtool Handbook, Dave Case, H. P. Books, P.O. Box 5367, Tucson, Arizona 85703, 1980, 160 pages, $5.95 paperback (if ordered from publisher, add 75 cents for postage and handling).

This is a readable, practical manual on power tools and how to use them in creative woodworking. Tools covered include drills, saws, sanders, routers, and many more. Detailed instructions, tips, and shortcuts save the builder time and help improve tool-handling techniques. Maintenance and safety are covered in depth.

Project and plan chapters are included. Learn how to build a pet shelter, patio barbecue stand, or shop caddy, for instance. Small projects, excellent for practice and gift giving, include a desk-top bookshelf, matching pencil holder, and more.

One chapter includes lumber grades, tips on ordering wood, selecting nails, screws, drill bits, and washers; and accompanying reference charts. Buyer's guides to more than 650 tools help you to select the right tool.

Green Pharmacy: A History of Herbal Medicine, Barbara Griggs. The Viking Press, 625 Madison Ave., New York, N.Y. 10022, 1982, 379 pages, $14.95 hardback.

Today many people have questions about medicine in general and medicines in particular. They are distrustful of drugs, yet uncertain as to alternatives. They are concerned about the high cost of pharmaceutics, and the side effects they are known to have, yet are unsure of other, simpler remedies. Aware that there is a growing emphasis on "natural remedies," they wonder about the place of herbs in the treatment of diseases. Should herbs be relegated to the category of old-wives' tales and fads or should they be regarded as sometimes better medicines than the synthetic, chemical drugs that dominate the medical scene? And people wonder sometimes, Why does what might be termed legitimate medicine not give more attention to these simple, natural remedies?

In many ways these questions are not just contemporary ones. They have been asked for a long time. And they are the reason for this book.

In *Green Pharmacy,* Barbara Griggs, a British author, goes back to the beginnings of medicine and traces the problems that have arisen from time to time among men of different philosophies of medicine, focusing particularly on the area of herbs. The book illustrates that human knowledge in its many aspects has been arrived at little by little, with many side paths, false starts, cul-de-sacs, and, not infrequently, roads that have led to ill rather than good.

Medicine is a prime example of this, and in reading this book one sees the human factor involved—bigotry, pride, vested interest, and other attitudes that sometimes hinder progress. It also shows—frequently in the same men—singlemindedness and courage that caused them to push ahead with healing concepts in spite of the opposition of conservative, even what might be perceived as entrenched, elements.

The author suggests, and offers documentation in proof, that sometimes apparent prejudice and economics keep simpler, possibly safer, and more effective natural remedies from being made available to the public. Whether this is so will be for the reader to decide.

BASIC FOOD GROUPS

DAILY PORTIONS

Vegetable-fruit group
four or more servings

Citrus fruits, tomatoes, cabbage, peppers, melons, berries, dark-green or deep-yellow vegetables, potatoes, and others

Bread-cereal group
four or more servings

Breads, cereals, and other grain products made from whole (preferred), enriched, or restored grains

Protein group
two or more servings

Dry beans, dry peas, lentils, garbanzos, nuts, peanuts, peanut butter, eggs, cottage cheese, soy cheese, vegetable proteins

Milk group
children--3 to 4 cups
adults--2 or more cups

Whole, evaporated, or skim milk, reconstituted dry milk, buttermilk, or soybean milk

Eat additional food as needed for more calories

Is your kitchen suffering from the decorative "ho-hums"? Do you want to brighten things up and at the same time have a daily reminder of your nutritional needs? *Life & Health* is making available to you this beautiful full-color poster on the basic food groups for only $1.00. Order your 21" x 28" poster today!

Please send me _____ basic-food-groups poster(s) at $1.00 each.
I have enclosed $_____.

Please Print

Name _____

Address _____

City _____ State _____ Zip _____

DD-103

Review and Herald Publishing Assoc., Periodical Dept., 6856 Eastern Ave., NW., Washington, D.C. 20012

Invite these two for dinner. They're great mixers.

Our new Savory Dinner Loaf bursts with fresh, meaty flavor—because you mix it up fresh in seconds! And then bake it to mouthwatering perfection. The whole family will love it, because you can mix it to their taste. Toss in fresh veggies. Spice it up or sauce it down. Fix it plain or fancy. Any way you loaf it, Loma Linda's Savory Dinner Loaf is the new favorite for dinner!

Our fast new Patty Mix sizzles with fresh goodness, because you mix it up fresh—in seconds! Then you can pop it in the frying pan. Or add whatever gladdens your family's taste buds. Fry it for brunch. Spice it up for lunch. Toss in onions and other fresh goodies and sauce it for dinner. Welcome Loma Linda's exciting new way to beef up meatless burgers to your house tonight. You'll keep Patty Mix on hand—for good. Because it's a great mixer. Everybody loves it.

Send for our free recipe book. Loma Linda Foods, 11503 Pierce Street, Riverside, CA 92515.

LOMA LINDA FOODS

Goodness you can believe in.