YOUR LIFE AND HEALTH™

NATIONAL HEALTH MAGAZINE SEPTEMBER, 1982 $2.00

TEACH YOUR CHILD ABOUT MONEY

THE TWO FACES OF ASPIRIN

CHOOSING TO BREAST-FEED

FLU SHOTS– DO THEY WORK?

Spaghetti and Mashed Potatoes

When Mom decided to go back to work, I volunteered to help out by cooking dinner during the week. I thought all I'd have to do was thumb through some cookbooks and try a few recipes. Or in a pinch, open up a couple of cans and throw some stuff together. No one told me anything about balanced meals until the night I served spaghetti and mashed potatoes (my two favorite foods).

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P 101

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Your Life and Health

EDITORIAL

The Awesome Army

This month America's most important army gets on the move to take up or to continue training. Its uniform is not distinctive. Generally, there is no insignia that can be distinguished. There is no cadence to the marching of that great army. It does not move in companies, corps, regiments or divisions. Its members do not issue from barracks each morning, but from apartments and town houses, from duplexes and farm homes. They do not fall in on a parade square, but stand in ones or twos beside bus stops on quiet country roads, or in groups on busy street corners, waiting for rides to public or private or parochial schools.

Adults are perhaps inclined to see a large part of that army as made up of gum-chewing, levis-wearing, goofing-off irresponsibles. But whatever they may be, they are the corporate life of America's future.

Should matters continue with the Nation more or less as they have been going, several United States presidents are in that army. A number of secretarys of state, and Supreme Court justices, are there. A great number of tomorrow's legislators are presently moving, unnoticed, in the ranks.

Top lawyers-to-be, tomorrow's great scientists, widely acclaimed literary lights, eminent doctors and engineers, theologians, evangelists, philosophers, and business people are being trained in that army.

That mass of mighty potential will be, to a degree that is unimaginable, the arbiter of America's tomorrow. Who can tell what its impact will be upon the whole world?

This is an awesome thought.

The Nation's future has of course, always resided in its youth, as with every other nation. But we can't help being persuaded that today's youth face a heavier weight of destiny than any other generation of American youth, greater even than when the Nation was born or when two brother armies faced each other in a bloody struggle for the survival of two differing ideologies.

How ready will that destiny-bound army be for its rendezvous with history, whatever that rendezvous may hold in store? How strong, physically, mentally, morally, spiritually, will it be for its confrontation with destiny?

The answer to that question rests not alone upon the children and youth of whom we ask it. It rests less on them, in fact, than upon the generation from whom they learn—we who are their parents, their teachers, their spiritual leaders, their adult examples. Because, whether children like to accept the idea or not, whether they recognize it or not, most of their standards, their beliefs, their mores, come from the older generation. And while some of them may rebel against those standards and concepts, the influence is inerasably there, nevertheless.

So we adults must ask ourselves these far from unimportant questions: Are we, by our example and instruction, showing our children the right way. Are we setting solid ethical, moral examples that they will follow? Will they become an adult generation with integrity—honest, charitable, just, self-controlled? Will they have character because of us?

Are we teaching them to evaluate the world around them, its ideas, its philosophies, in ways that will help them see the harmful, the cheap, the false, the destructive? Are the spiritual values we pass to them such as will give them faith in God that will not be shaken by persuasive, yet specious, arguments? Are we helping them to have soul stamina that will steel them for test and trauma? Are we teaching them health habits that will give them physical vigor and staying qualities that will be needed in future days?

Broad questions, these. But in them is more than may immediately meet the eye. The Nation's future rests upon the answers to them.

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Acting Editor

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A New Look at the Potato

From a crop for cattle, to king's tables, with a monument raised in its honor, the potato has come a long way.

by Mary Robinson

A blue ribbon for the potato, the first fresh produce to win a nutrition label. Important discoveries are being made about the food value of spuds. No longer will it be weighed down with such insults as homely and lowly, starchy and fattening, uninspiring and dull.

After having suffered its ups and downs in history, the potato is moving into its proper niche. Recent research shows it to be a nutrient-dense food, low in calories, with a high return in vitamins and minerals.

The potato is native to South America, where the Incas cultivated it in the Andes region. When the Spaniards first introduced this edible tuber of the nightshade family to Europe from Peru, the upper strata of society shunned it as "unclean and ugly" and turned it into a fodder crop.

But the peasants found beauty in this strange tuber—the potato was easy to cultivate and tasted good. By the eighteenth century it was accepted as a large-scale crop fit for human consumption. Gradually the potato rose in stature. It reached the banquet table of Louis XVI, king of France; England raised a monument in its honor; and the Irish, rich and poor alike, sang its praises. In fact, Ireland was so dependent on the potato that the failure of the 1845 crop caused a famine resulting in widespread disease, death, and emigration.

Used by permission from the March, 1982, issue of VEGETARIAN TIMES.

In this country, the first Idaho potato growers were homesteaders—Scandinavian and German-Irish. The original grower was Henry Harman Spalding, a Presbyterian missionary who, in 1836, planted potatoes to teach the Nez Percé Indians to provide food other than game.

A slow starter in America

The Americans were slow in adopting the potato. They considered it not fit for eating long after it had become a steady European diet. But by the turn of the century, the homely vegetable had become the good old American spud. In the 1970s, the United States was harvesting more than 31.8 billion pounds of potatoes annually.

In recent years, however, after having been maligned by the ever-present, calorie-counting consumer, the potato was undergoing yet another image problem.

But in the 1980s that concept will quickly change because the *pomme de terre*, the apple of the earth, is fast becoming the apple of the eye in the view of chefs, nutritionists, and cooks all over the United States.

A potato museum, the only one of its kind in the world, recently opened in a hamlet in Belgium and is ready to display specimens of some of the world's 10,000 varieties, and recipes to go along with them.

Why this sudden rise in popularity?

A real and active Potato Board, seriously interested in the fate of the spud, has discovered the real value of potatoes through an innovative method of sampling. More than two years ago this group, composed of over 15,000 potato growers and handlers in the United States, decided to make a serious study of all the factors affecting the edible tuber, including variety, climate, growing season, storage and nutrient content. Knowing that the potato has a very definite and positive effect on the daily American diet, the Board felt that if more facts were gathered, the consumer would be better served.

They solved the problem of getting the potatoes to the laboratories by sending a message to food editors all over the country which said, in effect, "Buy potatoes for us. We'll foot the bill. Choose the spuds in grocery stores in four different seasons of the year. Waste no time in mailing. Send by overnight air service."

The potato passes a "physical"

And the result? An avalanche of fresh potatoes in all sizes, shapes, and colors from seven regions of the country. No sooner had the bags of russets, Burbanks, round whites, round reds, and other varieties slid down the conveyor belt than researchers, with rolled-up sleeves and parers in hand, set to work on a microscopic analysis and physical examination of the vegetable. No fluff-by-fluff stuff. This was in-depth testing. For months and months, experts attacked the

potato, slicing bit by bit, nub by nub, probing for nutritional value, freshness, texture, caloric content, flavor, weight, size, and quality. The potato nutrient study followed very closely the analysis of the U.S. Department of Agriculture Handbook 8, used in determining food value.

The testing received the blessing of the F.D.A., whose members were ready to be consulted every step of the way, from th sampling stage to the interpretation of data.

The Potato Board finding showed that:

- The potato contains a substantial amount of iron, much more than U.S.D.A. Handbook 8 indicates, about 15 percent of the U.S. RDA. Few foods eaten almost daily supply this amount. On the surface, this fact may seem minor, but it takes on added importance when one considers that this vegetable is the staple of the American diet. On a per capita basis, Americans consume about 120 pounds of spuds per year. Translating this statistic into another form, it means a medium-size potato per day for each man, woman, and child in the United States. That's a heap of spuds and a heavy amount of iron.
- The potato is a good source for flour, alcohol, and dextrin and contains potassium and phosphorus. A medium-size spud provides an average of 35 milligrams of vitamin C, equal to the amount in a glass of tomato juice, one-third of the recommended daily allowance.
- The potato is a good fiber source. An average serving of potato provides about 10 percent of the desirable intake of fiber. Fiber is the undigested part of food that travels through the intestine, absorbing water and forming bulk needed for elimination of solid waste.
- The potato is not as fattening as it was first thought to be, and—here go the statistics again—a 5-ounce potato contains about 100 calories. In contrast, pretzels contain 125-175 calories per ounce, and one ounce of fudge, 110 to 150 calories.
- Potatoes, compared to other fresh produce on the market, are cheap. In some parts of the country the price of a ten-pound bag may range from as little as $1.80 to $2.25—about nine cents a potato, depending on size and type. It is to be expected, of course, that inflation will have a sprouting effect on cost.

Mr. Mercer, officer of the Potato Board, in summing up the results of the program, said, "The potato is a highly valuable source of vitamins and minerals. It would be hard to find a vegetable that gives a broader array of nutrients. A 150-gram, average-size potato, yields 35 percent of the U.S.D.A. recommended amount of important vitamins and minerals."

He went on to say that their analysis reveals there are more minerals concentrated directly under the skin of the tuber than had been expected. This means an emphasis in preparing potatoes with jackets on and then eating the peeling.

It has also been discovered that potatoes are low in sodium and are a help to ulcer-suffering patients because of their bland and soothing qualities.

Backing the statements concerning nutritive value of this staple, *Consumer Reports Buying Guide Issue* for 1980 adds that instant potatoes also make a good showing in supplies of vitamins and minerals. (They caution that instants do have a high sodium content.)

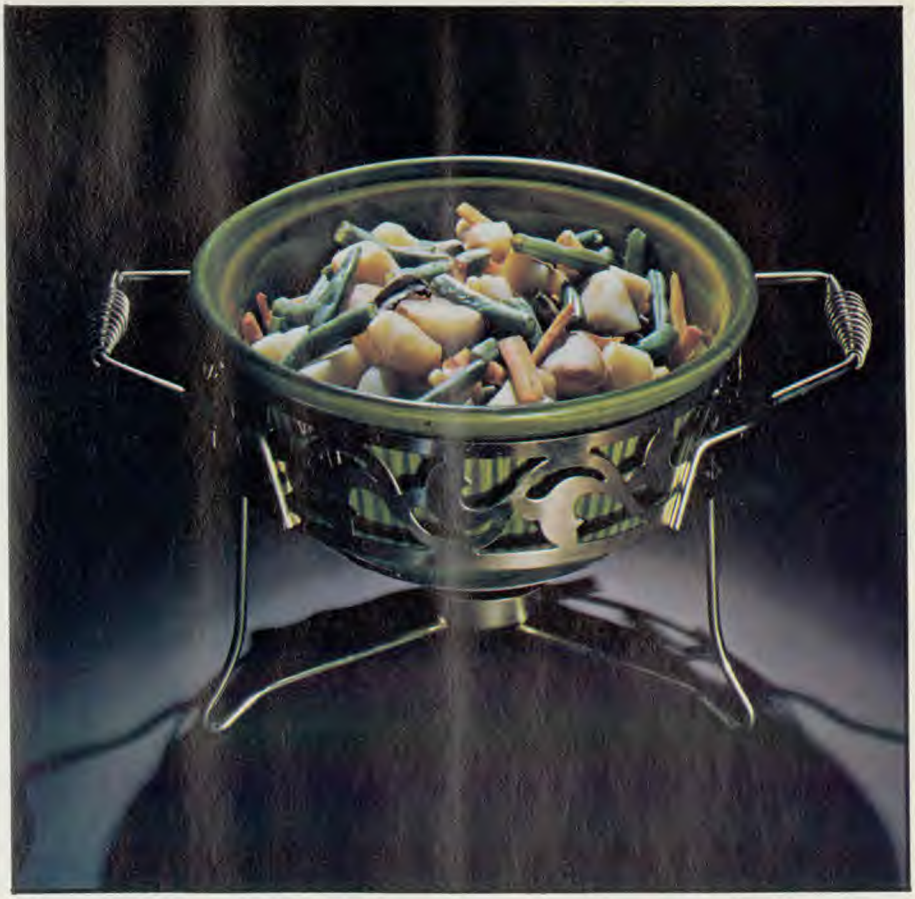
The spud has status

Today the potato has attained a well-deserved status in specialty restaurants

CHINESE POTATO STEW

¼ cup vegetable oil
2 cloves garlic, peeled and crushed
1 tsp. minced fresh ginger
¾ lb. boiling potatoes, cut into large cubes
½ lb. green beans, trimmed and cut into 2″ lengths
2 carrots, scrubbed and cut into small strips
½ lb. fresh mushrooms
¼ cup tamari sauce
4 tsp. sugar or 3 tsp. honey
Season to taste

Heat the oil in a heavy-bottomed skillet with a cover. When it is very hot, add the garlic and ginger and stir-fry for 15 seconds. Add the potatoes, beans, and carrots and stir-fry for one minute. Add the mushrooms and stir-fry for another minute. Add 2 cups water or vegetable broth, the tamari sauce, sugar, or honey. Bring to a boil. Cover, lower the heat, and simmer about 20 minutes, until the vegetables are tender. Remove the cover and reduce the liquid over a high heat. Serve hot with a sprinkling of sesame oil and minced scallion if desired. Serves 4-6.



PHOTOGRAPH BY DAVID SHERWIN

catering to potato lovers. These eating establishments are now aware that the spud is stuffed with potential. From San Francisco to New York, restaurants are selling seasoned, stuffed potatoes with fillings ranging from plain American cheese to imported caviar. Some menus offer up to fifty different stuffings.

After the news of the potato metamorphosis reached Europe, a Belgian magazine said, "*Maintenant la pomme de terre est digne de figurer sur les tables les plus raffinées comme dans le repas le plus simple* ("The potato is now worthy to grace the most refined table as well as the simplest meal")."

A Latin American editor, not to be outdone, headlined the transformation of the spud with lyric words: "*Patatas—graciosos y sabrosos tubérculos!* ("Potatoes, charming and savory tubers!")."

Who would ever have thought that the *Solanum tuberosum* would cause poetic adrenaline to flow?

In the United States the view expressed is much more utilitarian and prosaic, as reflected in the words of an American nutritionist: "A man could live on potatoes alone for up to five months and still remain in good health."

Homemakers, ever alert to savings and anxious for good, wholesome food, are initiating restaurant recipes and going several steps forward in concocting some of their own. Soufflés, soups, hash, and hollandaise potato dishes are being revised and revitalized. In demand are royal dishes with spuds as a base: duchess potatoes and potatoes a la dauphine. It would be too much to expect courtesan potatoes a la Napoleon and Josephine, but given a little time, now that the tuber is no longer grounded, it may orbit at even dizzier heights.

But let's bring the spud down to earth. There's more to a potato than throwing it into a boiling pot of water or putting it in an oven. Preparation is important to maintain nutrients and taste, but before preparation comes the selection and care of a good quality potato. The practical aspects are just as important as following a recipe.

Some interesting potato recipes—

SPUDBURGERS

Good and easy, especially if leftover mashed potatoes are used.

- 2 lbs. potatoes, cooked and mashed (or use part turnips, carrots, or beets)
- ½ cup ground nuts
- ¼ cup fresh parsley, minced
- ½ cup whole-wheat flour (or use ½ wheat germ)
- 1 tsp. honey
- Salt to taste
- Bread crumbs
- Butter or margarine for frying

Mix together the mashed vegetables, nuts, parsley, flour, and honey. Season to taste with salt. Form into patties and roll in bread crumbs. Fry in butter or margarine until golden brown on both sides. Serve on burger buns or with a soy or nut gravy and steamed green vegetables. Makes about 10 burgers.

POTATO FAMILY:

Round white—firm texture.
Round red—firm and white inside.
Long white—slightly flattened at end, light in color, smooth and shiny.
Russet—floury and mealy inside, perfect for roasting, good for french fries.
Russet Burbank—the most popular variety.

Selection:

Well-shaped, firm and smooth, not knobby.
Avoid potatoes with soft, dark areas or greenish color. Greening produces bitter flavor.

Storage:

Store in a cool, dry, dark, well-ventilated place. Temperatures over 50°F. encourage sprouting and shriveling. Prolonged exposure to light causes greenish color and bitter flavor.
Do not refrigerate.

Dos and Don'ts:

Leave skin on, when possible, for vitamin and mineral retention.
Use vegetable parer instead of knife for peeling.
For excellence in taste, use fresh potatoes.
Do not soak potatoes, either peeled or unpeeled.
Microwave cooking—for baking, remove from oven after 4 or 5 minutes. It will not be ready for eating yet. During standing time of 1 minute, the potato will cook thoroughly by its own internal heat.

MIDEAST POTATOES AND CHICKPEAS

- 1½ cups drained, cooked chickpeas (garbanzos)
- 4 medium potatoes, boiled until barely tender and diced in large pieces
- 2 medium onions, peeled and coarsely chopped
- 3 medium tomatoes, peeled and chopped
- 3 cloves garlic, minced
- 5 Tbs. olive oil
- 1½ Tbs. lemon juice
- Salt to taste

Heat the oil in a 10-inch skillet over a medium flame. Add the garlic and onions; stir until the onions are translucent. Add the chopped tomatoes and cook for one minute. Add the remaining ingredients plus a cup of water. Bring to a boil and cover. Lower the heat and simmer the mixture gently for 20 minutes. Serves 4-6.

COLCANNON

This traditional Irish dish is both highly nutritious and delicious.

- 1½ lbs. winter potatoes
- 1½ lbs. kale (or substitute cabbage)
- 3 leeks
- Salt to taste
- Butter or margarine
- 1 cup milk (dairy, nut, or soy)

Scrub the potatoes, peel them if you must, and cut into chunks. Cook in salted boiling water for about 20 minutes or until tender. While the spuds cook, wash the kale and pull off the tough stems and any damaged leaves. Place in a saucepan with 1 cup of salted water or broth. Cover, bring to a boil, and cook until tender—10-12 minutes. While the potatoes and kale cook, wash the leeks thoroughly, slice them up (including green tops), and wash again. Cook in a heavy saucepan with the milk until tender.

Drain the potatoes, drop in the butter or margarine, and mash. Drain the kale and chop it, then set aside to drain further. Combine the leeks with the potatoes and mash together. Beat in the chopped kale until the mixture is a pretty, pale green. Add as much of the cooking milk as needed to make the mixture light and fluffy. Season to taste and serve hot. Serves six generously.

PHOTOGRAPH BY ROBERT WRIGHT

The Two Faces of Aspirin

One of our oldest medications, aspirin has been touted as a wide-spectrum healer and as a threat to health. Can it be both?

by Carol Potera

"Go home, take some willow bark, get some rest, and call me in the morning." We can imagine these words being spoken by Hippocrates to one of his patients in 400 B.C. A modern

practitioner of the healing arts substitutes the popular generic term "two aspirins," for "willow bark."

Aspirin is an extraordinary drug that is one of the oldest therapeutic agents still in constant use. The use of aspirin dates back, as we have seen, to Hippocrates and to Pliny the Elder, who prescribed willow bark and poplar leaves for ailments as diverse as fever, bloody wounds, eye diseases, and calluses. The American Indians and aboriginal South African Hottentots also used willow bark to reduce fever and ease joint pains.[1] The bark and leaves of the willow tree, as well as other plants, such as bridal wreath, jasmine, wheat, and beech, all contain salicylic acid, the active ingredient in aspirin as we know it today. The botanical genus that includes bridal wreath is named *Spiraea,* from which aspirin later obtained its generic name.[2]

Herbal therapies were not generally used during the Middle Ages. Willow bark was rediscovered as an antifever agent in eighteenth century England. In 1899, in the laboratory of Friedrich Bayer and Company in Germany, salicylic acid was chemically changed in such a way as to eliminate its bitter taste and harshness to the stomach without sacrificing any of its therapeutic potency. This substance, called acetylsalicylic acid, is the form used today and it was Bayer who coined the now commonly used name, aspirin.[1]

The oldest medication

Aspirin is not only one of the oldest medications; it is one of the most widely used. In the United States alone, 20 to 30 billion aspirin tablets are consumed a year.[3] And we are not alone in this aspirin mania. In England, 3.5 billion aspirin tablets are consumed in a year.[4]

Because of its widespread and long-standing use, it is often assumed that aspirin is an innocuous drug. But is it? The fact is, even normal doses can be dangerous to certain groups of people, while in other cases, aspirin can save lives.

Few other drugs contain a greater variety of healing potential than aspirin. It has proven itself as an antifever, antipain, antirheumatoid-arthritic, and antikidney-stone agent. But it wasn't until the early 1970s that it was discovered how aspirin performs its many functions. We now know that it acts by inhibiting the production of normal body substances called prostaglandins.[5] First found in semen, prostaglandins were thought to be a hormone of the prostate gland, for which they were named.[6] Prostaglandins are now found in almost all the cells of the body, where they have a range of effects as diverse as aspirin itself.

Yearly, about 17,000 people are poisoned by aspirin; about 1 percent die.

Among their most adverse reactions, prostaglandins cause pain and inflammation. Aspirin works directly at the site of pain and inflammation to exert its benevolent effects by inhibiting the production of local prostaglandins. The pain of headaches and the inflammation of rheumatoid arthritis or tooth extractions are all caused by those substances and alleviated by aspirin. In fact, aspirin can raise the threshold against pain perception up to 35 percent. The next most widely used pain killer is morphine. It raises the pain threshold only 70 percent, yet requires a prescription.[1]

Another beneficial action of aspirin is in the kidneys, where it inhibits the formation of kidney stones. Prostaglandins can cause loss of calcium from the bones, which deposits in the kidneys and forms stones.[7]

Much study has been done on the side effects of aspirin. Aspirin's action on prostaglandins has its bad as well as good effects. Prostaglandins stimulate the formation of natural bicarbonates in the stomach, which protects that organ from damage by strong stomach acids. But aspirin prevents prostaglandins from operating, breaks down the lining of the stomach, and causes gastric bleeding. The best evidence suggests that heavy aspirin use, defined as fifteen or more tablets a week, causes gastric bleeding. Yet this happens only in about 15 of every 100,000 heavy aspirin users.[4] However, aspirin combined with alcohol does increase stomach bleeding.[8] Even though people with existing ulcers are more intolerant to aspirin, there is no good evidence linking even heavy aspirin use as a cause of ulcers.[4,9]

Aspirin and pregnancy

As with every drug, it is questionable whether pregnant women should take aspirin. Since prostaglandins cause the uterus to contract normally at the end of pregnancy, aspirin is sometimes recommended to delay premature delivery. However, it rapidly crosses the placenta and can have an adverse effect on the blood vessels of the unborn child. Prostaglandins maintain normal circulation, while aspirin constricts the blood vessels. More stillbirths and lower birth weights are found in babies of women who take aspirin regularly during pregnancy than those who do not.[10]

Another common use of aspirin is to treat fever. Nobody questions the ability of aspirin to reduce high body temperatures. The problem is that fever may be a necessary natural defense against bacteria, and aspirin may hinder that defense. Letting a fever of only a few degrees run its natural course may be a better idea than treating with aspirin.[11]

Related to this fever controversy is the use of aspirin to treat the common childhood diseases, flu and chicken pox. A rare disease, called Reye's syndrome, which afflicts 2 out of every 100,000 children after recovery from flu or chicken pox, is linked to high aspirin use 95 percent of the time. That disease changes brain structure and causes liver degeneration. For this reason, some pediatricians caution the use of aspirin in children.[12]

Aspirin intoxication is another condition to which children are especially prone. Each year about 17,000 people are poisoned by aspirin, and 1 percent die. The usual victims are children.

Public health authorities describe a common scenario that involves parents deceptively telling their children that flavored aspirin is candy. Later the child eats the "candy" in the medicine chest. The early symptoms of aspirin poisoning are sweating and irritability, followed by dryness, lethargy, vomiting, and hyperventilation.[1]

Other people are allergic to aspirin. Aspirin allergies affect over one million people a year in the United States. Either sex and any age can be sensitive. The two

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most common types of responses are skin hives and breathing problems. The cause of the hives is unknown, but an overproduction of a prostaglandin causes the lung constrictions.[13]

Aspirin and a cold

The use of aspirin to treat the symptoms of the common cold may give you just as unpleasant a side effect. When prostaglandins in the lining of the nose are prevented from forming by aspirin, another substance, hydroxy eicosatetraenoic acid, called HETE, is produced, which stimulates mucus secretions and gives you a runny nose instead.[14]

New medical uses for this ancient drug are found each year. One under study involves the use to delay the onset of cataracts.[15] In another case, aspirin is being studied as a possible cancer-preventing agent. The possible conversion of some chemicals in the body to cancer-causing agents by prostaglandins may be prevented by aspirin.[16]

The most exciting and likely new use of aspirin is to prevent stroke and heart attacks. Since aspirin is well known to increase bleeding (a problem, we recall, in its role in causing stomach problems), it helps to prevent blood clots. These clots, caused by the prostaglandins, play a role in stroke and heart disease. Since heart attacks are this country's number one killer, finding a substance as simple as aspirin to prevent deaths would be tremendous. But it's still too soon to tell how useful aspirin will be as a solution to heart disease.[17, 18]

Until further work is done, to treat one's self with aspirin to prevent heart attacks or cancer or kidney stones would be foolish. The widespread notion that aspirin is an innocuous drug is not only erroneous but could even be harmful in some cases, as we have seen.

ASPIRIN'S COMPETITORS

No discussion of aspirin would be complete without reference to several other competing drugs. These new aspirin-like compounds can bewilder the average consumer who is bombarded with advertisements about them. The advertising budgets of both Tylenol and Anacin exceed the total advertising budget of the Exxon Corporation.[19] Yet these products offer no advantage over aspirin except in those rare cases of aspirin allergy. Generic aspirin is just as good and often is the major component of these more expensive competitors as well.

For example, Anacin contains in addition to aspirin only caffeine, yet it is 4 to 5 times the price. It would be cheaper to drink a cup of coffee, as a medicine, with a store-brand aspirin tablet. As an edge against the stomach irritations aspirin causes some people, drug companies offered aspirin that was combined with an antacid, i.e., buffered. The conclusion from a number of studies is that the best known of these, Bufferin, offers little or no additional protection to the stomach lining.[20]

Another type of product is without ill effects on the lining of the stomach, can safely be used by those who are allergic to aspirin, relieves pain and reduces fever, but lacks aspirin's ability to reduce inflammation. These highly touted products go by such names as Tylenol and Datril. The active ingredient in these tablets is acetaminophen, a drug neither newer nor more potent than aspirin.

Because these products cannot reduce inflammation, they are useless in treating rheumatoid arthritis or the swelling that occurs with sprained muscles and joints or tooth extractions.[21]

Another highly acclaimed product, Excedrin, contains a combination of aspirin, acetaminophen, and caffeine. If one pain killer is good, two must be better, but also 5 to 6 times the price of generic aspirin. Excedrin P.M. lacks the caffeine, but contains an antihistamine, pyrilamine, which acts as a mild sedative and also raises the price 10 times over that of plain aspirin.

Product name	aspirin(mg)	acetaminophen(mg)	caffeine(mg)	others	Approximate price per 100 tablets
aspirin (store brand)	325	-	-	-	$ .49
aspirin (Bayer)	325	-	-	-	$1.19
Empirin	325	-	-	-	$2.51
Bufferin	325	-	-	magnesium carbonate (antacid)	$2.59
buffered aspirin (store brand)	325	-	-	magnesium carbonate (antacid)	$ .89
Anacin	400	-	65	-	$2.37
Tylenol	-	325	-	-	$2.23
Datril	-	500	-	-	$2.96
No aspirin formula- (store brand)	-	500	-	-	$1.66
Excedrin	250	250	65	-	$2.59
Excedrin PM	250	250	-	pyrilamine (antihistamine)	$5.58

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Flu Shots—Do They Work?

The effectiveness of flu vaccinations depends on a number of factors, but in general they do provide worthwhile protection.

by H. E. Heidinger, M.D., M.P.H.

Shortly after Christmas, 1980, the elderly parents of one of my friends contracted the flu. Before that they had been living alone, driving their own car, tending to their own needs and, in general, functioning quite well for their ages of 82 and 86 years. The flu hit them hard. They had to have acute hospital care for three weeks, followed by a two-month stay in a convalescent hospital. And they have never been the same since. Today they must be cared for in a bed-and-board facility—all because of an attack of influenza. Unfortunately, they had not received flu shots prior to the attack.

Influenza strikes people of all ages and at various times of the year, sometimes with great inconvenience for the victim.

Although for many years it has been possible to prevent a large number of diseases through immunization, a worldwide estimate reveals that something like five million people die annually from six diseases that could be either prevented or reduced with proper immunizations.[1] Most of these unnecessary deaths take place in areas of the world where development is still taking place. The six diseases for which immunizations are urged are diphtheria, pertussis (whooping cough), tetanus (lockjaw), tuberculosis (except in the U.S. and some other countries), poliomyelitis, and measles. Vaccines for most of these are given to infants in the first year of life. The current immunization schedule for infants in the United States is DPT and TOPV (diphtheria, pertussis, tetanus, and Trivalent Oral Polio Vaccine), given at ages 2, 4, and 6 months, with a booster at 18 months and another when starting school, and MMR (measles, mumps, German measles) at the age of 15 months.

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The first influenza vaccine was given to human beings in 1936; its use was begun regularly in the 1940s. Since that time flu vaccines have been widely used in many countries around the world. The greatest number of vaccinations administered in any one year in the United States was in 1976, when it was planned to immunize nearly everyone. Some 43,000,000 vaccinations were given before the plan was discontinued.

What causes influenza?

Influenza is caused by a virus that brings on fever, headache, myalgia (muscle pain), malaise, sore throat, cough, and runny nose. The incubation period is two to three days. The disease is highly contagious and spreads rapidly, often explosively, in schools or institutions; from 10 to 50 percent of those infected may be sick at one time. It is considered contagious as long as there are excess body secretions (runny nose or sneezing and coughing), and during the febrile period. The flu is usually a self-limited, upper-respiratory illness lasting two to four days. However, in some cases it may last much longer or be complicated by a viral pneumonia or a secondary bacterial pneumonia. The disease varies in severity from an extremely mild illness to a complicated, protracted disease leading to death.

The term flu is used by many people to describe a disease caused by specific viruses. But it is also used to refer to a wider variety of illnesses that are characterized by fever, generalized body pain, malaise, and so on, and may include pneumonia or many other infectious diseases as well as influenza.

Each year during the flu season a large number of pneumonia deaths occur that exceed the number of deaths normally expected to be caused by pneumonia. This is because many pneumonia cases were started and complicated by influenza. In the devastating influenza pandemic of 1918 there were an estimated 20 million deaths worldwide; one half million of those were in the United States.[2] In the Asian flu pandemic of 1957-1958 there were some 70,000 excess deaths in the United States.[3] The next pandemic in the United States occurred in 1968-1969 as a result of the Hong Kong flu. It is estimated that there were about 250,000 excess deaths in the United States during the two decades from 1958-1978 because of the flu.[4] Most of these deaths occurred in persons above the age of 65 years. However, deaths also occurred in young children and people with chronic diseases.

The two main types of influenza virus are influenza A and influenza B. You have also heard of the Hong Kong flu, the Russian flu, and so on. These names are applied to a particular virus causing the flu because it was first isolated in those places. Also attached to the name is the year in which it was discovered.[5] Thus the Hong Kong flu, which hit in 1968, and was an A type, is officially designated Influenza A/Hong Kong/68 H3N2.

The H and N stand for antigens (types of foreign substances carried by flu viruses that the body reacts to and so develops antibodies in the blood to produce immunity to a virus).

With these facts about the antigens in mind, we can think of some of the problems faced in manufacturing flu vaccines. A big problem is what is called antigen drift. This means that certain changes occur periodically in the H and N antigens, so that there is a minor modification of the virus, and consequently the flu it causes is somewhat different than previous types. So we have had Influenza A/England/72, Influenza A/Victoria/75, Influenza A/Texas/77, and Influenza A/Bangkok/79.[6]

To complicate matters still further, there is what is called antigenic *shift*, distinguished from antigenic *drift*. Antigenic shift is a *major* change in the antigens so that the virus moves from one flu type to another. For example, in 1957 what had been termed Influenza A H1N1 changed and had to be designated Influenza A H2N2. So, when Influenza A

H2N2 hit in 1957, it resulted in a major epidemic because people who had an immunity for the first type had none for the new virus.

Another main problem in producing influenza vaccine is trying to predict which antigenic strain of virus will hit in the coming fall and winter flu season. This prediction must be made by March or April, shortly after the winter flu season, to provide sufficient time for the pharmaceutical companies to develop the new vaccine, test it in animals, then in human volunteers, produce it in quantity, and distribute it for use in early fall before the flu season begins. When the predictions of March and April come up with the right antigenic strains that occur in the next fall and winter flu season, the vaccine is found to be very effective. When the prediction succeeds in pinpointing only a portion of the virus strains that hit the following flu season, and thus the vaccine is only partially correct, it cannot protect fully and is therefore less effective. It is not a faulty vaccine but merely the wrong one for the strain of influenza that actually struck after the vaccine was developed.

The vaccine for the 1980-81 flu season contained three components: Influenza A Brazil/78, Influenza A/Bangkok/79 H3N2, and Influenza B/Singapore/78.[7] The vaccine for the flu season 1981-82 contained the same three strains, but the concentration was doubled.[8]

Minimal side effects

Side effects from recent flu vaccines have been minimal. In fewer than one third of vaccine recipients there may be at the site of injection, a transient redness and firmness of the tissue, which lasts one or two days. About 5 percent of vaccine recipients may experience a low grade fever, a feeling of weakness, and sore muscles. In rare cases there may be an immediate hypersensitivity reaction most likely caused by residual egg protein in the vaccine. Persons who are known to be allergic to eggs or who develop swelling of the lips or tongue when eating eggs should not receive influenza vaccine.[9]

Guillain-Barré syndrome (GBS), which is characterized by an increasing paralysis and is usually self-limited and reversible, was found in approximately ten out of every one million persons who received the 1976 swine flu vaccine. This GBS increase following the mass campaign of influenza vaccine was five- to sixfold over the normal number of cases.[10] Data collected on the following three influenza seasons show no clear association between influenza vaccine and Guillain-Barré syndrome. However, while GBS is usually mild and self-limited, it may result in death in approximately 5 percent of the cases. Because of the increased association of GBS with the mass influenza vaccinations of 1976, the nationwide campaign was discontinued.

The type of influenza vaccine used in the United States is a killed virus vaccine that still retains antigen properties that stimulate the body to produce antibodies to protect from the disease. A weakened live virus vaccine has been used extensively in Russia and China and has been tested in the United Kingdom and U.S.A. For multiple reasons this vaccine, which can be administered by nasal drops or inhalation or even taken by mouth, has not yet been licensed for general use in the United States. The killed virus vaccine now in use may be given by injection.

Who should receive flu shots?

At the beginning of this article I listed six diseases for which immunizations are recommended for infants and children. You probably noticed that influenza is not one of them. Should children receive flu shots? Full flu vaccine is recommended on an annual basis for all persons, children and adults, who tend to suffer from lower respiratory tract infection.[11] The risk factors include the following conditions: (1) heart disease, either congenital or acquired later in life, when there is an associated abnormal condition of the circulation, e.g., a heart valve problem, heart failure, etc.; (2) any chronic lung disorder affecting lung function, e.g., severe asthma, bronchiectasis, chronic obstructive lung disease, tuberculosis, and decreased lung function produced by diseases affecting breathing; (3) chronic kidney diseases; (4) diabetes or any other diseases leading to increased susceptibility to infections; (5) chronic severe anemia, e.g., sickle cell anemia; (6) diseases such as certain cancers and their treatment that may suppress the immune system.

It is generally recommended that everyone over 65 accept flu immunization because of potential complications caused by the disease that could lead to death. Some authorities also recommend the vaccine for everyone who works in an area of great exposure to influenza, such as medical personnel or those in close contact with people who have influenza.

Are flu vaccinations really effective? Harold Mulden, deputy director of the Communicable Disease Center's Division of Immunization, said in 1978 that vaccinated persons would have 70 to 90 percent immunity.[12] If they were in the 10- to 30-percent group that does not have complete immunity they would have a milder illness if they caught the flu than if they had had no vaccine.

It is difficult to measure the effectiveness of flu vaccines. Numerous studies have been done based on the subjects' resistance to exposure to influenza, and many authors report effectiveness in the 60- to 90-percent range while others report a 40- to 80-percent effectiveness range.[13] However, the duration of immunity is usually regarded as being effective less than one year because of the antigenic drift discussed earlier. Therefore, for continued protection against influenza, an injection of vaccine before each fall-winter flu season is necessary.

The excess deaths that occur each year during the flu season are often caused by pneumonia which may be secondary to influenza. Thus many elderly people receive the pneumococcal vaccine along with the influenza vaccine to protect them during the winter season.

When a person becomes ill with influenza, the body develops a long-lasting immunity against the particular virus strain causing the illness. This was evident in the recurrence of the influenza of 1977 (A H1N1), which had not been present since 1957. Persons over 21 years of age had good immunity, whereas those less than 21 years of age, who had not been exposed to the 1957 flu virus, were not protected.

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Teach Your Child About Money

Wise parents in every social strata and walk of life endeavor to teach their children about money and how to handle it.

by Bobbie Jane Van Dolson

Jane Smith, looking chic in her I. Magnin skirt and pale cashmere sweater, paused to give a few last-minute instructions to the maid before going shopping.

"The flowers for tonight's dinner will be here within the hour, Susan. Remember that there will be ten of us. Please use the blue linen cloth, and the sterling, of course."

Jane paused, her attention caught by her 9-year-old twin sons, who were consuming a soup-and-sandwich lunch in the well-appointed breakfast room. "Oh, fellows, I nearly forgot! Here's your allowance." In a whisk two five-dollar bills were tucked under the soup bowls. "Now don't spend it all today. Either Daddy or I will help you make some plans tomorrow. Bye now." And with a wave of her hand, Jane, affluent young matron, was on her way.

Across town, Mary Jones, weary from eight grinding hours on an assembly line, unlocked the door to her three-room apartment.

"Mommy, look!" Ten-year-old Karen's bright face brought a responding glow to her mother's tired one. "I watched Mrs. Grimes' little boy for an hour, and look what she gave me! A dollar!"

"Well now, a whole dollar?" Mary said warmly. "I know there's a couple of things you've been wanting. After supper we'll talk, and you can tell me what you'd like to do with it."

Two women at opposite ends of the social spectrum, three children—and money. The scenario, slightly altered, is replayed in hundreds of thousands of homes around the world. The facts are that both money and children are here to stay, and the relationship that is developed between the two, while having no effect, as such, on the money, will to some extent determine the success or failure of the child's life. If a child grows up prudent and wise in finances, then as an adult he may enjoy the respect and confidence of all who know him—including himself. He is apt to be the pillar-of-the-community type, a sought-after and responsible citizen.

Understanding this, wise parents in every social strata and walk of life endeavor to teach their children about money and how to handle it.

The young child usually receives funds in one of two ways: he may be given an allowance—a set sum bestowed at given intervals, both of which are agreed upon by himself and the adult involved, or he may earn cash by errands or services at home or in the neighborhood.

The pluses of allowances

Most authorities feel that wherever possible, the allowance system is best. It enables the child to know exactly how much money is available to him and how long it must last. Children with allowances tend to become more careful planners. Parents who give allowances are aware of how much the child has and what he is spending. An added bonus is the fact that a dependable allowance does away with any need the child might feel to manipulate parents in an attempt to get more money, avoiding the Get-Mommy-in-a-good-mood-and-then-ask-her-for-two-dollars syndrome.

If your family has decided to go the allowance route, by all means determine the amount in consultation with your child. Be sure that both you and your son or daughter are clear on just what supplies, clothes, school materials, et cetera are to be purchased from the funds. Allow ample to cover these, with enough left over for a bit of "fun," and perhaps savings.

Probably the single most important rule regarding allowances is consistency. As an adult, you can't live on an erratic, irregular income. Do not expect your child to do so. Once the amount and time it's to last have been decided, stick to both. And do plan to review the child's financial situation with him occasionally. Some families find that just before school begins in the fall is the ideal time to assess the situation.

By the time a child is ready for a full-fledged allowance, he has been exposed to money and its possibilities for a number of years. His attitudes have been shaped by the many variables in both his heredity and environment. As a toddler he witnessed money being traded for something worthwhile—food, a toy, a new pair of shoes. Early on, he probably had a few pennies of his own and, with help, purchased a treat. He has perhaps watched many hours of television and has probably prevailed upon his mother to buy some well-touted products. He is aware that money is necessary in order to have things.

By all means take your preschooler to the supermarket with you and take time to explain, in some cases, why you purchase certain products. ("This bread costs more money than that bread, but it has better flour in it." "These bananas are very ripe, so they don't cost as much money as the others, but they'll be good in banana bread.")

A whining little child who constantly begs for a treat while shopping can be given a small sum and allowed to choose something for himself, with the understanding that the choice, when made, is final for that day. Be prepared to allow plenty of time for choosing.

Teaching equivalent values

By about the age of 7 most children are able to do simple shopping on their own.

Bobbie Jane Van Dolson is a homemaker, book editor, and teacher. She has two sons who have learned pretty well how to handle money.

If you are fortunate enough to have a friendly neighborhood grocery, take advantage of this. When Sherri returns with the loaf of bread or carton of milk, or whatever you ordered, count out the change with her. This helps her to understand that making a purchase involves an exchange of equivalent value for the goods received.

Children of 9 or 10 who have been trained in money matters may be entrusted with a small shopping list, but plan for a few surprises. An 11-year-old boy, taught in the larger-is-cheaper school of thought, proudly carried home a half-gallon jar of mustard in his grocery sack. Later his mother explained that in shopping one needs to choose a size that can be used up in a reasonable amount of time.

Most thoughtful parents are eager that their children learn the virtues of saving; and the number of tots who have dutifully plunked pennies into piggy banks is legion. So are the older youngsters who have obediently channeled birthday and other monies into bank accounts. It would seem that nothing could be safer, yet those in the know warn against too heavy a stress on saving for the very young. Grace Weinstein, writing in *Teaching Children About Money*, explains it this way: "The ability to save implies the ability to defer gratification, to put off pleasure today for the sake of greater pleasure tomorrow. Before children can defer gratification, they have to understand two concepts: *time*, so that they can put off spending to a later day; and *money* as a tool for buying goods and services. Young children understand neither. A rainy day means nothing to the young child who lives entirely in the present. And it takes a while, even after considerable exposure to shopping with parents, before young children truly understand the connection between money changing hands and goods changing hands."—pages 7, 8.

Spending before saving

Most experts feel that before a child learns to save, he should learn to spend wisely, then be helped in planning short-period savings not simply to hoard money, but in order to purchase something of real value (of value to the child, not the parent!).

How children relate to money depends to a large extent on their parents, and the attitudes are apt to be caught as well as taught. If Sue is aware that Mom and Dad pay exorbitant credit card bills, she is not apt to be interested in accumulating money for something that is important to her and that she would like right now. Ronnie is not likely to use his small funds judiciously when he knows that Dad spends every last cent between paychecks.

Money and children—the combination is inevitable. There is probably no family so rich and surely none so poor that their children can be left untrained in how to handle it. In between the two extremes, most of us work with budgets, savings, and careful planning, and in so doing find a certain joy. Let your children in on this. Teach them and show them by example that money, rightly handled, is not an evil tyrant but rather a helpful friend that is fun to work with. &

PHOTOGRAPH BY DAVID SHERWIN

Home Poisons Are Still a Threat

It takes more than a tamper-proof medicine container cover to protect us from poison.

by Heidi Schmidt

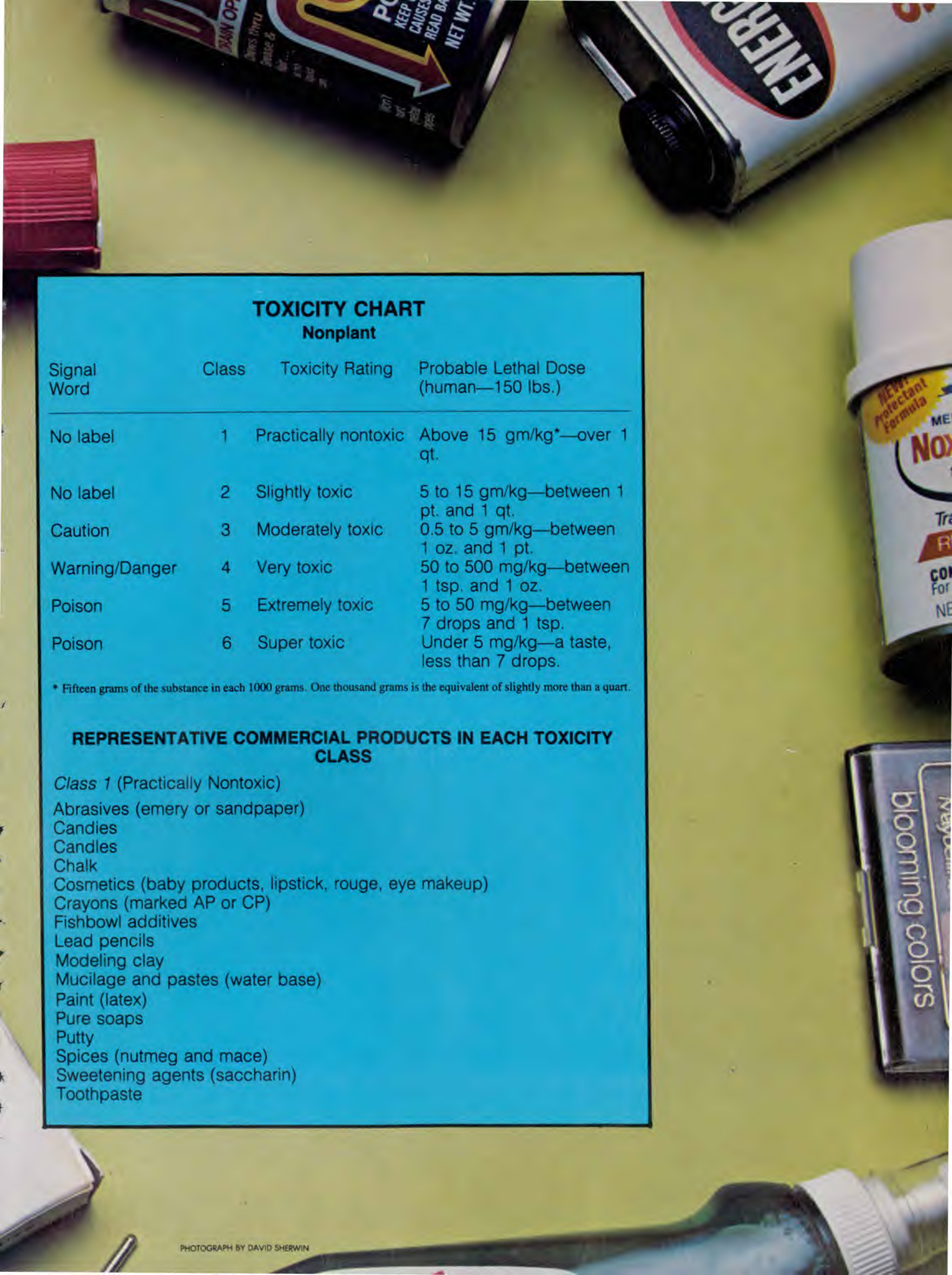
The year 1971 marked the advent of the child-resistant lids on medications and highly toxic household products. By 1975 it was generally assumed that the caps had proved a success and that the ingestion of dangerous substances was no longer a serious problem with respect to children under age 5. Unfortunately, statistics do not support that assumption. Now it is time for renewed public awareness campaigns to provide adults the information necessary to keep not only children safe from poisoning but themselves, as well.

Heidi Schmidt is the mother of two daughters, ages 10 and 7, and is a Girl Scout leader and a secretary, as well as a writer of nonfiction books and articles for children and adults. She resides in Fairmont, Minnesota.

Statistics gathered by the National Clearinghouse for Poison Control centers provide a clear picture of the seriousness of poisoning. Since 1971 the only substance that showed a significant decline in poisoning situations was aspirin, with 8,146 cases reported in 1972, and 3,577 cases reported in 1978. Showing reductions of approximately 25 percent in poisoning cases were vitamins, minerals, and household bleach. These were the primary items targeted by the child-resistant caps.

Other substances showed substantial increases. Medications rose between 25 and 40 percent. This increase is attributed to the fact that adults found the lids so difficult to get off that once they got them off they left them off. Fingernail-preparation products rose 118 percent in poisoning cases; plants and plant foods showed a shocking increase of 160 and 140 percent, respectively. Plant poisoning is growing as Americans aim for good health through eating habits and as we are exposed to articles and TV specials showing us how to find our food in the wild or in our yard. Impressionable children are especially affected as they see adults plucking leaves and weeds from their backyard and eating them.

The purpose of the following toxicity chart is to inform as to the degree of toxicity of the substance, plant, et cetera. For example, abrasives are practically nontoxic, so are listed in Class 1. The ink of ball-point pens is slightly toxic, so is listed in Class 2, and so on. It should be



TOXICITY CHART
Nonplant

Signal Word	Class	Toxicity Rating	Probable Lethal Dose (human—150 lbs.)
No label	1	Practically nontoxic	Above 15 gm/kg*—over 1 qt.
No label	2	Slightly toxic	5 to 15 gm/kg—between 1 pt. and 1 qt.
Caution	3	Moderately toxic	0.5 to 5 gm/kg—between 1 oz. and 1 pt.
Warning/Danger	4	Very toxic	50 to 500 mg/kg—between 1 tsp. and 1 oz.
Poison	5	Extremely toxic	5 to 50 mg/kg—between 7 drops and 1 tsp.
Poison	6	Super toxic	Under 5 mg/kg—a taste, less than 7 drops.

* Fifteen grams of the substance in each 1000 grams. One thousand grams is the equivalent of slightly more than a quart.

REPRESENTATIVE COMMERCIAL PRODUCTS IN EACH TOXICITY CLASS

Class 1 (Practically Nontoxic)

Abrasives (emery or sandpaper)
Candies
Candles
Chalk
Cosmetics (baby products, lipstick, rouge, eye makeup)
Crayons (marked AP or CP)
Fishbowl additives
Lead pencils
Modeling clay
Mucilage and pastes (water base)
Paint (latex)
Pure soaps
Putty
Spices (nutmeg and mace)
Sweetening agents (saccharin)
Toothpaste

PHOTOGRAPH BY DAVID SHERWIN

Class 2 (Slightly Toxic)

Ball-point pen inks
Bleaches (less than 6 percent sodium hypochlorite)
Bubble-bath soaps (detergents)
Cigarettes or cigars (tobacco)
Contraceptive pills
Cosmetics (most, including colognes and perfumes)
Dehumidifying packets
Deodorants
Deodorizers (spray and refrigerator)
Detergents (most—not electric dishwasher)
Fabric softeners
Felt-tip pens
Incense
Inks (most)
Iodophil disinfectant
Lubricating oils Lubricants (most)
Matches (book)
Mineral oil
Paint—indoor (less than 1 percent lead)
Phenolphthalein laxatives
Polaroid picture-coating fluids
Polishes (porcelain, some furniture)
Shampoos
Shaving creams
Soap products
Toy pistol caps
Thermometer mercury
Vitamins with or without flouride

Class 3 (Moderately Toxic)

Adhesives (rubber, linoleum, roofing, plastic cement)
Agricultural chemicals (many)
Antifreeze
Bleaches (oxalate type and greater than 6 percent sodium hypochlorite)
Brake fluids
Cleaners (window, stain removers)
Cosmetics (depilatories, permanent-wave neutralizers, nail-polish removers and enamel)
Disinfectants (bathroom, toilet, garbage can)
Indelible inks
Lighter fuels
Mothballs (most)
Motor fuels
Polishes (metal, wood, shoe, stove)
Preservatives (brush, canvas, roof)
Stain removers

Class 4 (Very Toxic)

Agricultural chemicals (many)
Ammonia bleach—commercial
Degreasers (metal, et cetera)
Dishwasher granules—electric
Disinfectants (acid, alkali, halogen, pine oil, and phenolic-type)
Drain cleaners (some)
Fire extinguisher liquid
Leather dyes
Moth repellents (naphthalene)
Petroleum products (most)
Radiator cleaners
Rust removers

PHOTOGRAPH BY DAVID SHERWIN

Class 5 (Extremely Toxic)

Drain and sewer cleaners (caustics)
Fireplace flame colors (blues and greens)
Fungicides (some)
Herbicides (some)
Insecticides (some)
Rodenticides (some)

Class 6 (Super Toxic)

Botanicals (nicotine, strychnine)
Fungicides (a few)
Herbicides (a few)
Inorganic chemicals (cyanide, phosporus, arsenic, thallium, fluoride)
Insecticides (a few)
Rodenticides (a few)

PLANTS—POISONOUS PARTS AND SYMPTOMS

Autumn Crocus—The entire plant is poisonous, particularly the bulb. Symptoms: Nausea, dizziness, vomiting.
Azalea—The entire plant is poisonous. Symptoms: Weakness, vomiting, and in extreme cases paralysis and death.
Bittersweet—Leaves, roots, and berries. Symptoms: Nausea, dizziness, dilated pupils, convulsions. Can be fatal.
Christmas Rose—Entire plant. Can cause skin rash if plant is damaged and juice seeps out. Nausea, dizziness, convulsions. Can be fatal.
Dieffenbachia—Leaves are poisonous. Symptoms: In severe cases the mouth and tongue swell and can cause death by choking.
English Ivy—Berries; a rather large number must be consumed. Symptoms: Difficulty in breathing.
Elderberry (Black)—Roots, stems, leaves, and unripe berries. Symptoms: Nausea, vomiting, and diarrhea.
Holly Berries—Must be consumed in large number. Symptoms: Vomiting and diarrhea.
Iris—Leaves and roots. Symptoms: Upset stomach.
Laurel—The entire plant is poisonous. Symptoms: Weakness, vomiting, and in extreme cases paralysis and death.
Lily of the Valley—Roots, leaves, flowers, and fruit. Symptoms: Rapid heart beat and irregular heart beat.
Mistletoe—Leaves and berries. Symptoms: Upset stomach, and in severe cases an inability to breathe.
Morning Glory—Seeds are poisonous. Symptoms: Upset stomach and diarrhea.
Narcissus, Daffodil, Jonquil—Bulbs. Symptoms: Vomiting, and in severe cases convulsions.
Oleander—Leaves and bark. Symptoms: Stomach pains and vomiting.
Philodendron—Leaves are poisonous. Symptoms: In severe cases the mouth and tongue become swollen, causing death by choking.
Poinsettia—Leaves and stems are poisonous. Symptoms: Upset stomach.
Rhododendron—The entire plant is extremely poisonous. Symptoms: Vomiting, weakness, paralysis, and death.
Rhubarb—Leaves are poisonous. Symptoms: Stomach pain, nausea, vomiting, and in severe cases convulsions, internal bleeding, coma, and death.
Tomato—The entire plant is poisonous, with the exception of the fruit. Symptoms: Upset stomach, vomiting, and diarrhea.

Note: This is only a partial list of poisonous plants and includes only the most common of the household and yard plants. If any person is known to have eaten *any* plant he should be watched closely for symptoms. If any symptoms develop, a doctor should be notified immediately.

pointed out that very few cases of poisoning result in death, 57 in 1978; however, the total cases requiring hospitalization numbered 10,914.

PREVENTION AND CURE

The primary factor in preventing poisoning is being aware of what you have in the house and yard. Each time you buy a product read the ingredients before you place it on the shelf. Dishwasher granules are very toxic, yet on most of them the only warning is "Harmful if swallowed." Note what action is recommended if the product is swallowed. Never take products out of the original containers, and when the product is gone, dispose of the empty container immediately. Children love empty bottles and boxes. Do not have poisonous plants within reaching level of any small child. Instruct older children which plants are dangerous and tell them exactly what can happen to them if they should put them in their mouth.

Always keep syrup of ipecac, which induces vomiting, on your shelf for emergency use. It can be purchased at any pharmacy without a prescription. Do not use this syrup until you have called your physician or local poison control center. Vomiting should never be induced when the substance ingested is a strong acid, strong alkali, or petroleum product. If there is any question whatsoever as to the contents of a substance ingested, never induce vomiting.

Always keep the number of your local poison control center near your telephone for easy access.

As an added precaution against accidental poisoning from household products, you can receive Mr. Yuk stickers to place on products around the house by writing to your regional poison center.

Be aware, be prepared, and together we can reduce the number of poison cases occurring each year.

Taking the PANIC Out of Poison

The Case for Regionalization

As in many other areas of life, working together in the treatment of poisoning saves both lives and money.

by Joanne Duke Gamblee

The automobile comes first in children's accidents; poisonings, or suspected poisonings, are the second most common cause of accidents involving children.

Look around your home. If you have children, where is the vitamin bottle, especially vitamins with iron? Where is the bleach, the disinfectant, your plant food? And where are the plants? If there are little children around, a low table is no place for such favorites as philodendron, azaleas, or Jerusalem cherry. All of these are toxic.

Outside it's the English ivy, rhododendron, lily of the valley, sweet peas, morning glory, hyacinth, iris, daffodils, to name just a very few.

Poison centers are finding cases of plant exposures among children under 5 increasing. In the cases of children under the age of one, most eat the leaf of the plant. If this happens in your house the first move is to call the poison-control center.

If you don't know the number of a center ask the telephone operator or the local medical society. One day, not too many years from now, poison-center numbers will be as familiar nationwide as those of police and fire departments. Two national organizations, the American Association of Poison Control Centers and the National Poison Center Network, are working to organize this country into a system that will take the panic out of poison. When the mechanics are all in place every mom and dad will know that one phone call will put him or her immediately in touch with an expert diagnostician who has the ability to make a quick and accurate assessment.

Poison centers are not new, but the move to regionalize them, or organize many small ones into regional centers, is new. In this case less is better. According to the latest FDA figures there are 275 functioning centers in the United States. Eventually, the AAPCC would like to see sixty interlinked centers serving the country.

"Slowly but surely we'll meet that goal," says Dr. Brent Whitehead, Director of the poison-control center at Children's Hospital, Columbus, Ohio. Dr. Whitehead is working with the centers in Cleveland and Cincinnati to devise a three-center regional organization for Ohio. Illinois has completed a similar reorganization, replacing about 100 small centers with a three-center system. Wisconsin is another example, having reduced their number to five.

Regionalization makes sense

There are several reasons why regionalization makes sense, cost effectiveness being close to the top of the list. But at the very top is saving lives. How does one measure the difference preventive action has meant? The Columbus Center, which began its reorganization in 1979, can point to the numbers of calls, slightly over 22,000 for each year of 1980 and 1981, and report that during that time there has been but one fatality caused by poisoning.

When Dr. Whitehead arrived in Columbus nearly three years ago the call rate was 18,000, with 35 percent being referred to the emergency room of the nearest hospital. By contrast, in 1981 only 3.4 percent were referred to the emergency room, a stunning example of the savings in money for ambulance and emergency-room care. For a period of two years figures from Blue Cross/Blue Shield show that Franklin County (Columbus) realized a savings of well over $2 million.

The thrust of regional centers is home care and home treatment. There is no cost to the patient using the service if there is no trip to the hospital.

Small, individual centers, lacking a trained staff, tend to overtreat, bringing into the emergency room cases that could have been managed at home. Recently north of Columbus a small child drank some bleach. The frantic parent called the emergency crew, which took child and parent to the hospital where the staff, believing it was a critical case, put the child in another ambulance and sent him into Children's Hospital. It was not critical, and the antidote was a glass of milk. But two ambulance trips and two emergency-room visits helped to raise medical costs.

Because poisoning is a situation in which minutes can be critical, and countdown begins with a telephone call,

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regional centers are at the ready 24 hours a day, 365 days a year.

"When the call comes, a regional organization can respond magnificently," said Dr. Whitehead. "The trained staff takes the call, and knows not to jump to conclusions. We must have the patient's history, and if he or she has been on medication. We need to know the exact product, and quantity taken. The situation can be stressful because we must be positive. If necessary we place a call to the emergency crew and give them directions and instructions. Then we call the nearest hospital and give them all the information so that the staff will be waiting with the diagnosis and care instructions by the time the patient arrives. This relieves the hospital staff of a time-consuming and often frustrating task."

The American College of Emergency Physicians has just completed two and a half years of work to aid centers in this process. They have established hospital criteria that the centers may rely on to know where to send a patient for specific treatment.

Dr. Michael Ervin, chairman of the Toxicology Committee of ACEP, explains that there will be three categories of hospitals, depending on expertise and equipment. Fortunately, only about 5 percent of all cases sent to a hospital need the most sophisticated equipment.

Dr. Whitehead, who has been caught up in the work of poison centers since his undergraduate days as a pharmacology student at the University of Utah, hopes that the regionalization of Ohio will be completed in another three years. He recalls voluntarily manning the telephone at the center between classes and, on one occasion, handing out small vials of syrup of ipecac, which encourages vomiting, to customers at the supermarket. He serves the AAPCC as a member of the Standards Committee, devising criteria for approval of centers.

Mr. Yuk

Besides AAPCC, centers can also belong to the National Poison Center Network, headquartered in Pittsburgh. They may belong to both, for both organizations share the same goal—regionalization. Latest figures from NPCN show 54 regional and satellite centers, with 600 affiliated member hospitals. The NPCN has been active since 1973. The organization's most conspicuous badge is Mr. Yuk, that round, pea-green face sticking out its tongue as though it has just tasted vinegar. The aim was to create a replacement sticker for the old skull and crossbones, one that children could easily recognize. Mr. Yuk labels are available to all NPCN member hospitals. Perhaps one day he may become the national or international poison symbol.

Also, with the help of the University of Pittsburgh, the NPCN has devised a colorful curriculum for preschool children, cautioning them against eating or drinking substances they don't know about. Originally geared to use by nursery-school and Head Start teachers, the curriculum is now being tested for use in kindergartens. A pilot program is under way in the Troy Schools, Troy, Ohio.

An estimated 2 million to 5 million children younger than 5 years of age ingest toxic or potentially toxic household products each year.

Aldon Haines, Troy director of elementary education, said, "We're conducting the post tests now. That is, we're asking the children the same questions about Mr. Yuk and poisonous substances that we asked them before the teachers taught them the material. Then the NPCN will evaluate what we came up with. Once necessary changes are made they will offer the curriculum to schools all over the country. Later, material will be developed for first and second grades."

Currently the most attractive poison for the preschool set is vitamins with iron. Aspirin has dropped to fifth place, partly because it's now packaged in small bottles so that there aren't enough in one bottle to kill a child, and partly because of the child-resistant closure regulations. Second, third, and fourth places go to household cleaners, cosmetics, and plants.

An estimated 2 million to 5 million children younger than 5 years of age ingest toxic or potentially toxic household products each year, about which poison-control centers should be contacted. Unfortunately, less than one third of the population is adequately covered.

Once the mechanics of regional organization for a center are completed the final project is a media blitz to inform the public. The aim will be (1) to let everyone know that in a case of suspected poisoning, chances are excellent that it is not fatal, (2) to tell them where to find the number of the poison center, and (3) to educate a caller to remain calm while talking with the center.

Instant information available

A continual stream of new information about poisoning comes in. Those who man the telephones say they never seem to get caught up with background information. Between calls they can be found reading up on new material that has come in from any one of a number of sources: medical journals, drug companies, books on toxicology, et cetera. For reference, the staff in Columbus has more than one million pieces of information stored on microfiche (pieces of 4" x 4" film, which take less storage space than microfilm). They also have a card file of 300,000 poisonous commercial products, which file is updated every three months. When hospitals become involved in a regional plan this astounding supply of information housed in centers is only a telephone call or telecopier print away.

This is another advantage of regionalization. Hospitals are basically treatment facilities. Once they become affiliated with a poison center they also become information centers. As many as 20 percent of the calls can be for information only, and the affiliation with a center ensures a prompt and accurate response.

If ever there was a situation ripe for computers it's the work of poison centers. The NPCN uses one in Pittsburgh, but general computerization is out of financial reach. But where there's a will there's a way! Centers such as Ohio, which have funding problems with their State legislatures, could see this as a blessing in disguise. Some States do fund the work of regional centers, but Ohio refuses to do this until all three regional areas are working together. Grants from Blue Cross/Blue Shield, the McNeil Laboratories, and funds from United Way keep the Columbus center going.

Funding is essential—and solvable. Top priority is to spread the blanket of protection over all of us, because we're taking more and more vitamins, plants, and drugs into our homes. As the lifesaving, money-saving advantages of affiliating with a regional poison center become more generally understood perhaps public demand will help grease the wheels of total regionalization.

Choosing to Breast-feed

The contemporary mother can feel confident that her decision to breast-feed is always right.

by Jacqueline McDonald

For century after century and generation after generation as a new mother questioned how her baby would be fed she "had no choice to confuse her. There just weren't any bottles and formulas. . . . Her baby came; the milk came; she nursed her baby. No well-meaning but not too well-informed friends questioned her ability to do this; it was simply taken for granted."[1] God obviously had created the woman with breasts to nourish and comfort her babies.

But, somewhere along in history, mothers began to use other methods to feed their little ones. Wet-nursing, at first practiced only in cases of maternal death, abandonment, or severe mental or physical illness, became common among the well-to-do as early as the first century after Christ. In eighteenth-century Europe, even the middle class and poor were "farming out" their babies to be wet-nursed, often by young, unmarried, malnourished mothers who frequently transmitted tuberculosis and syphilis.[2] Infant mortality was high. Although doctors and clergymen alike urged mothers to nurse their own babies, it was to little avail. Therefore, the professionals gradually turned their attention toward developing safer means of artificial feeding.

Eventually, as vulcanization of rubber, structural changes in bottles and nipples, pasteurization of milk, and commercial production of formula made bottle feeding somewhat less risky, it began to replace breast-feeding. At first only the upper class could afford to buy formula. But, like the hiring of wet nurses, bottle feeding soon spread to the middle and lower classes until *the bottle* became a real status symbol.

Regimenting babies

Babies were put on rigid four-hour feeding schedules, fed commercial baby foods at increasingly earlier ages, and made to "cry it out" in sterile-sheeted cribs. The would-be breast-feeding mother became frustrated and nervous, resulting in inability to secrete the milk produced after childbirth. This caused painful breast engorgement, unrelieved because the mother was not allowed to nurse her baby frequently enough, and she soon gave up. She received little or no encouragement from doctors, hospital nurses, family, or friends.

Furthermore, as a reaction to sex-oriented American culture, with so much exploitation of the female breasts as a sex symbol, many young women of a generation or two ago grew up with an unnatural shame toward the maternal functions of their bodies, including breast-feeding. From the 1940s to the 1970s, only 25 percent of mothers were nursing their babies upon discharge from the hospital. As few as 5 percent nursed as long as six months.

Fortunately, in the past decade many young mothers have returned to breast-feeding their babies, and for longer periods of time. With this there is an increase in childbirth education and unanesthetized deliveries, prolonged maternal-infant contact in the delivery suite, rooming-in privileges, and/or on-demand feeding schedules, and shorter hospital stays. Why are more than 50 percent of today's women, especially the college-educated and those from higher income groups, now choosing to breast-feed their babies and finding their experiences satisfying and successful?

Mother's milk has numerous advantages

A prime consideration, of course, is the superior nutritional value of breast milk. Although all formula manufacturers attempt to simulate breast milk composition, none have been able to duplicate it exactly. Each mother's milk is specifically suited to her own baby's needs, whether premature or full-term. As baby grows, his mother's milk varies in composition to meet his changing needs at each stage of growth.

Breast milk contains the right types and amounts of proteins, carbohydrates, fats, cholesterol, vitamins, minerals, and trace elements. In addition, breast milk nutrients are used by the infant's body more efficiently than nutrients found in formula. Breast milk provides *complete* infant nutrition for approximately the first six months of life, with no need for supplemental vitamins, iron, fluoride, or even water, as long as baby is totally breast-fed.

Because breast milk is easier to digest than any type of formula, the breast-fed baby has fewer digestive disorders. He is less likely to spit up or have diarrhea and is never constipated. Breast milk is almost totally assimilated, producing less waste matter to be eliminated, and thus places less strain on the immature kidneys, liver, and digestive organs. There is also less excess of unusable calories to be deposited as extra fat cells; and a breast-fed baby may avoid the initiation of a lifelong obesity problem.

Colostrum, which precedes the coming in of breast milk, serves several functions. The first colostrum feedings act to "clean out" the gastrointestinal tract and to promote the growth of beneficial intestinal flora. It strengthens baby's intestinal walls and increases his

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Jacqueline McDonald writes from San Marcos, Texas. As an active member of the local La Leche League, a mother's organization emphasizing, among other things, breast-feeding, she has researched the subject long and thoroughly and has written a definitive book-length manuscript on it.

ability to digest proteins. But the most important factor is the natural immunity that colostrum provides. Like blood, colostrum contains living cells that attack invading disease organisms. These immune bodies are in highest concentrations during the first ten days of breast-feeding, but continue in lower concentrations until weaning. In addition, the lactating breast responds to local infections transmitted by the nursing infant by producing antibodies in the mother's body, and these appear in the milk, thus protecting both baby and mother.

Baby is virtually never allergic to the milk of his own mother (though some babies may exhibit temporary allergic reactions caused by certain foods eaten by the mother). On the other hand, even one bottle of formula given to an allergy-prone newborn can greatly increase his susceptibility to allergies later on. The longer such a baby is breast-fed, and the older he is before solid *or* liquid supplements are given, the less likely he will be to develop allergies, and the less severe they will be.

Breast-fed babies in general have fewer skin disorders, such as diaper rash and eczema, as well as less incidence of respiratory infections. Although the cause of sudden-infant-death syndrome is still somewhat of a mystery and breast-feeding is not a guarantee against this tragedy, statistically fewer breast-fed babies are affected by "crib death."

Mother's milk is safe

Despite occasional alarmist scares about "environmental contaminants" found in mother's milk, breast milk is totally safe (assuming the mother's body is relatively free of noxious substances). Where there might be a potential threat, the human mother can control her own exposure to contaminants to a certain degree, such as avoiding home pesticides and ingestion of certain animal products. The cow and the soybean plant (as formula sources) have no such choice in escaping from atmospheric and other contaminants.

In recent years, at least two major baby food manufacturing companies have had to recall huge batches of formulas that were found to be deficient in essential nutrients, the absence of which caused permanent physical and mental damage to many developing infants before the deficiencies were discovered. Some other formulas have been known to contain lead and cadmium pollutants or dissolved metal from the inner lining of the cans. With breast milk, however, there is no danger of human error in manufacture, storage, or consumer usage.

Because of the muscular effort required in nursing, breast-fed babies have "better-developed dental arches, palates, and other facial structures."[3] They also tend to have fewer cavities, especially an absence of "nursing-bottle mouth" (decay of upper front teeth), even if nursed to sleep every night. Finger- and thumb-sucking past the page of 6 months is very rare in breast-fed babies who are nursed frequently and allowed to self-wean.

Equal eye development is assisted by breast-feeding because baby is nursed fairly equally on both sides. Eye contact itself is important in establishing a strong maternal-infant bond.

Breast-feeding also ensures that the infant will get essential physical and emotional contact with his mother several times a day, long past the age when a formula-fed baby who is able to hold his own bottle might be left alone for feeding. Many mothers report a surprising amount of independence and emotional security in their children who were breast-fed and permitted to wean at their own pace.

Breast-feeding benefits the mother

Benefits of breast-feeding begin at delivery for the mother who nurses. Suckling produces oxytocin hormone, causing uterine contractions, which assist in expelling the placenta and preventing postnatal hemorrhaging. It also aids in a more rapid return of the uterus to its normal size. Breast-feeding uses up extra calories, so the nursing mother may regain her prepregnancy figure sooner and be less likely to retain unnecessary weight with each successive childbirth.

Menstruation is delayed in the average breast-feeding mother for anywhere from a few months to well over a year, depending mostly on the extent to which baby is nursed and the age at which baby begins solid foods or supplements. Although breast-feeding in itself does not

PHOTOGRAPH BY DAVID SHERWIN

ensure contraception, it does prevent ovulation in most women who nurse baby frequently enough. It also greatly lessens the chances of a new pregnancy occurring until the resumption of menstrual periods.

Convenience ranks high on the list of reasons why contemporary mothers are choosing to breast-feed. Breast milk is fresh, sanitary, always at the right temperature, readily available, and does not require any washing, scrubbing, or sterilization of bottle paraphernalia. What could be simpler at night for bleary-eyed parents and a hungry baby?

Breast-feeding mothers often experience the interesting phenomenon of having the same sleep patterns as their nursing babies, frequently awakening just *before* the baby does, at a time when they are both in a lighter sleep cycle. Because of this (and of being able to lie down while she feeds the baby), the nursing mother is generally not as tired the next morning as her bottle-feeding neighbor who lost this unique sleep-pattern unity with her newborn after about two weeks.[4]

Traveling with a breast-fed baby is much simplified, with a lighter diaper bag and no worry about running out of formula or having it spoil, or concern for obtaining a sanitary water supply when away from home.

Not only does breast milk itself have antiseptic qualities but the secretions from the glands in the areola kill bacteria. Thus, the self-cleansing human nipples and breasts do not need any extra care to ensure sanitation other than normal daily bathing with plain water on the nipple area.

When breast-fed babies do spit up, which is less frequently than if given formula, there is never any sour-milk odor about them. Even baby's diapers do not have an unpleasant odor as long as he is totally breast-fed, with no supplements or solid foods.

Because of the tranquilizing effect of oxytocin hormone, nursing is relaxing for the mother. In addition, breast-feeding assures that mother will get a chance to sit or lie down with the baby several times a day—especially important in the early weeks, when a new mother needs additional rest. Yet she can be somewhat mobile with a tiny nursing infant. She can carry him in one arm and still have a free hand to answer the telephone or stir

PHOTOGRAPH BY H. ARMSTRONG ROBERTS

the soup if necessary while feeding the baby. If she should become ill at any time during her breast-feeding experience, it is far easier to go to bed and nurse the baby there than to struggle with mixing formula and cleaning bottles when she is not feeling well.

The hormone prolactin, necessary for milk production, is also responsible for an increased feeling of motherliness—an effect that continues throughout lactation. These positive maternal emotions greatly facilitate and enhance good mothering for the breast-feeding woman.

The resulting manifestations of tenderness and love often extend to husband and older children, and to friends, acquaintances, and even strangers, as well. Dr. Robert Bradley observes that a breast-feeding mother is "a more calm, kind, considerate person for you to live around. The close physical contact with baby triggers the outflow of true selfless compassion for all humanity."[5]

Some sources suggest that the mother who has let her children gradually wean from the breast may be better able in her own mind to wean them psychologically as they approach young adulthood, and thus avoid the empty-nest syndrome of middle age.

Breast-feeding and breast cancer

Many studies indicate that the risks of developing breast cancer in later life are greatly reduced for women who have breast-fed their babies, especially in those who have nursed for extended periods of time. The risk seems lowest for those who breast-fed for a total time of three years or more during their childbearing years.

The husband of a nursing mother quickly recognizes the economics of breast-feeding. A recent report estimates that for the first year of feeding a baby, formula alone, not counting equipment, costs a minimum of well over $400.[6] Formula-fed babies may require supplemental vitamins and are often started on solid foods sooner. Breast-fed babies are generally ill less often and less severely; they make fewer trips to the pediatrician and, later, to the orthodontist. From another aspect, breast-feeding is ecologically sound, utilizes a truly natural resource, and makes a positive contribution to world economy.

Father, of course, enjoys many of the same conveniences as mother, but he particularly appreciates the ease of nighttime feedings, with little loss of sleep for anyone, and more time to spend with his wife. According to Masters and Johnson, breast-feeding mothers may be more sexually responsive sooner after childbirth.[7]

Breast-feeding is a distinctly feminine act. It has been stated that "if you decide to bottle feed, it will not make you less of a mother. But if you decide to breast-feed, it will make you more of a woman."[8]

Even siblings of a breast-fed baby may benefit. While nursing, mother has one free hand to wipe a runny nose, embrace a toddler, or hold a book and read to a child. If older siblings were breast-fed when they were younger, they have a ready example of how mother cared for *them* as infants. They will grow up with healthy attitudes toward the maternal breast, easily accepting breast-feeding as the natural way to nourish their own babies.

Breast-feeding has no disadvantages

There are no disadvantages to breast-feeding as far as your baby is concerned. Any theoretical advantages of bottle feeding are for the mother only and usually reflect a lack of correct information, misconceptions of a mothering life style, cultural or generation differences, or lack of desire to breast-feed.

Breast-feeding does require a certain amount of relaxation, good nutrition, and rest—essentials for *any* new mother. But breast-feeding does not create inevitable breast and nipple problems, nor does it cause or complicate normal newborn jaundice. Although only mother can actually nurse baby, breast-feeding certainly does not decrease baby's need for his father's close contact or prevent interaction with other family members. Public nursing need not be socially unacceptable if done discreetly. Breast-feeding does not tie you down any more than good mothering itself.

Author Karen Pryor boldly declares, "Any woman can nurse a baby!"[9] Ability to breast-feed is not dependent on breast size or nipple shape. There is no proved existence of hypogalactosis (failure to produce sufficient milk) in any woman who has given birth. Even adoptive mothers, who have not nursed for years or perhaps not at all, are able to relactate or induce lactation.

Possibly the only real justification for breast-feeding failure is lack of a strong-enough desire on the mother's part, particularly if she faces some unusual obstacle, such as having a handicapped or hospitalized infant, birth complications that require her own extended hospitalization, or total opposition from those close to her. However, many persevering women have successfully nursed premature and Caesarean-section babies, twins or triplets, and babies with various congenital abnormalities. Many others, given sufficient correct information and optimistic family support, easily and quickly overcome less traumatic challenges, such as temporary breast discomforts, apparent milk supply insufficiency, and emotional stresses of new motherhood itself.

The most successful breast-feeding mothers seem to be those who do have a determination to succeed, who have access to complete and accurate knowledge of the lactation process and correct breast-feeding techniques, and who are surrounded by people with positive, encouraging attitudes toward all aspects of breast-feeding mothering—especially husbands, mothers, and mothers-in-law, as well as doctors and hospital personnel. When circumstances are anything less than ideal, many women find the needed help through La Leche League,[10] a nonprofit organization devoted to "good mothering through breast-feeding" and considered to be the world's foremost authority on breast-feeding.

Most mothers desire to rear their children in the best possible manner. Breast-feeding is one of the most natural and effective ways of initiating the accomplishment of that goal. Certainly no one can or should state that all bottle feeding is wrong. But the contemporary mother can feel confident that her decision to breast-feed is always right. &

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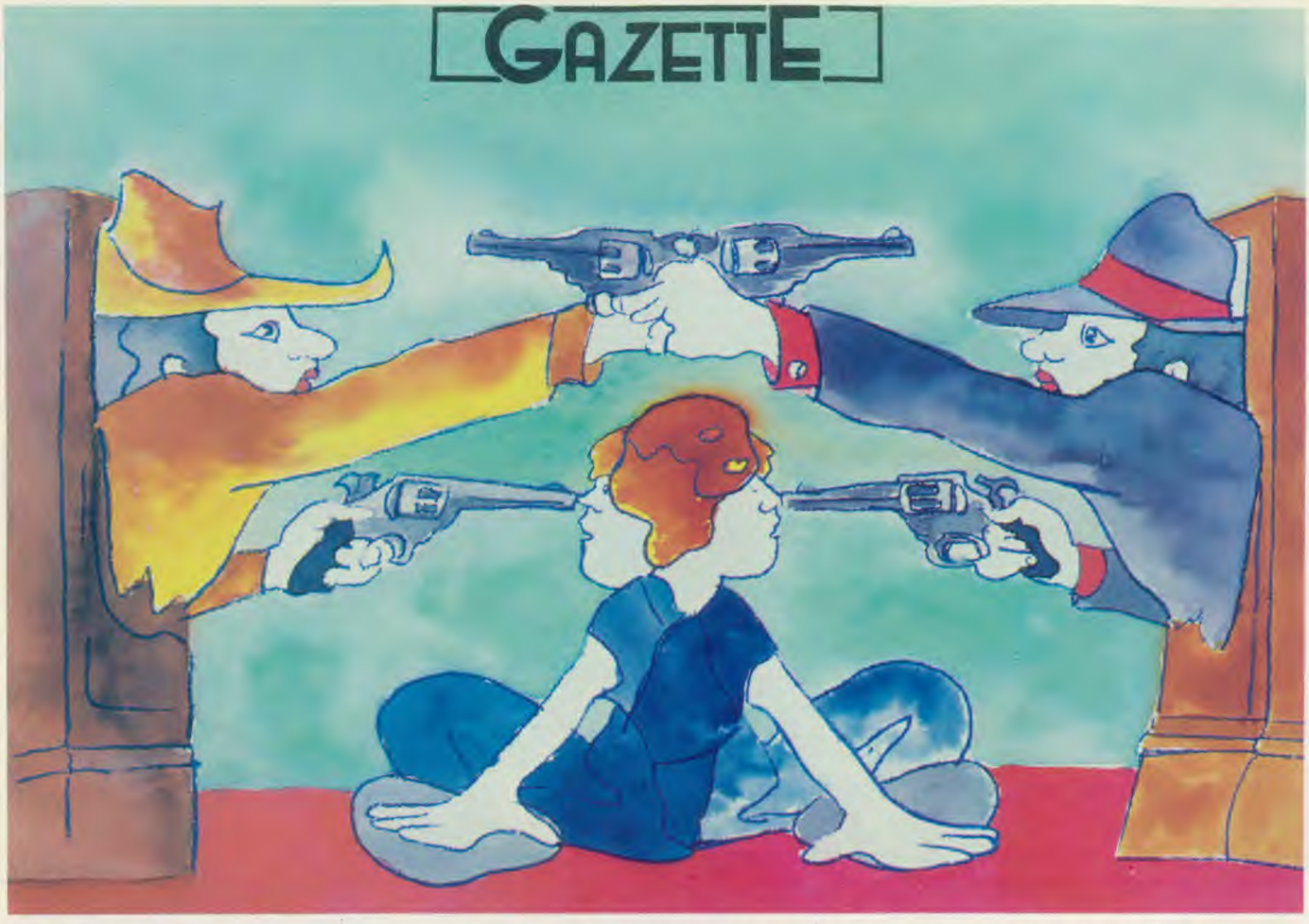
[10] If unable to locate a local LLL chapter, one may write or call:

La Leche League International
9616 Minneapolis Avenue
Franklin Park, Illinois 60131
(312) 455-7730 (9 A.M. to 3 P.M., Central Time)

GAZETTE



TV Violence at All-Time High

The National Coalition on Television Violence (NCTV) has released its first-quarter monitoring results. It found that TV violence has increased 25 percent on commercial TV networks to its highest levels ever. This is nine times as much as appears in PBS-produced programming and four times more violent than two Canadian networks.

The NCTV report came out just days after the Government's National Institute of Mental Health announced its update of the Surgeon General's Report. That report found an important cause-effect relationship between TV violence and real-life aggression. The evidence was called "overwhelming."

NCTV reported that the most violent prime-time programs were: Fall Guy, Dukes of Hazzard, Strike Force, T. J. Hooker, and Greatest American Hero. Twenty-five programs were in the high-violence category.

The four highest prime-time sponsors were: Wrigley Gum, President Wm. Wrigley, Jr., 60 N. Lake Shore Dr., Lake Geneva, Wisconsin 53147; Abbott Laboratories, Chairman Rob Schoellhorn, Box 27, St. Mary's Road, Libertyville, Illinois 60048; Greyhound (Dial Soap), Chairman Gerald Trautman, Greyhound Tower, Phoenix, Arizona 85077; Schering-Plough (Maybelline), President Robert Luciano, Galloping Hill Road, Kenilworth, New Jersey 07033.

Five sponsors were responsible for 61 percent of Saturday AM violence: Ralston Purina, President Wm. Stiritz, 5925 Lindell, St. Louis, Missouri 63112; Kellogg, Chairman Wm. LaMothe, 235 Porter Street, Battle Creek, Michigan 49016; Hershey, Chairman, Harold Mohler, 226 E. Caracas Avenue, Hershey, Pennsylvania 17033; McDonalds, Chairman Ray Kroc, One McDonalds Plaza, Oak Brook, Illinois 60521; General Mills, Chairman Brewster Atwater, Jr., 9200 Wayzata Boulevard, Minneapo lis, Minnesota 55426

NCTV encourages concerned citizens to write the sponsors of these programs to protest their heavy sponsorship of violence. For more information write: NCTV Monitoring Office, P.O. Box 647, Decatur, Illinois 62521.

Hair analysis: useful diagnostic tool or waste of money?

Is hair analysis a reliable diagnostic tool by which to discover "chronic health problems like fatigue, depression, or headaches"? Does it reveal whether there are "heavy metal accumulations in your body"? Is it "the best test . . . for deficiencies or excesses of trace minerals"? Medical authorities say No.

According to the American Medical Association's Committees on Cutaneous Health and Cosmetics, the state of the body's health may be completely unrelated to the chemical condition of the hair.

For example, there have never been any *scientific* claims that hair analysis for *vitamins* is a reliable measure of vitamin nutritional status.

Since there are no vitamins in hair except at the root (below the surface of the skin), vitamin deficiencies can't be traced by analyzing hair.

Minerals are found in the hair. But despite this, hair analysis isn't useful for detecting them in the body because scientists have not yet determined the normal range for minerals in the hair. Without one's knowing the lower limit of normal, it's impossible to say whether a particular measurement indicates a normal or deficient state.

Advertisements for hair analysis often claim that the method can detect abnormal mineral ratios, or imbalances, in the body. In fact, it isn't known whether mineral imbalances have any effect on the chemical composition of the hair.

Hair analysis can be of some *limited* use in the detection of toxic levels of a few minerals, including lead, cadmium, and mercury. Even in these cases the results are uncertain when applied to individuals.

Hair analysis is of limited value even when it is done properly. Commercial services may not even provide accurate, reliable results. Bertram A. Spilker, a pharmacologist and medical consultant to the Federal Government, recently sent samples of hair from three healthy young men to three different commercial laboratories for analysis. Each lab received duplicate samples from each person. The reported results varied widely from lab to lab, and also varied from sample to sample taken from the same individual. According to one expert, problems with analytical techniques occur mainly when analysis for many elements is attempted. These multielement analyses are exactly what commercial services offer.

The abuse of hair analysis has been so extensive that it has discouraged scientists from continuing legitimate research on the subject. This is unfortunate. Hair is a very convenient sample material because it can be obtained simply and painlessly, and stored and transported easily. Good diagnostic tests using hair as the sample would be valuable.

At this time, however, scientific hair analysis is mainly a research tool, because of the many difficulties in interpreting the results. Extensive additional research would be needed before it could be used to identify abnormal conditions in individual patients.

—Adapted from *ACSH News and Views*, The American Council on Science and Health, 1995 Broadway, New York, New York 10023.

Watch out for "detergent gases"!

Recently a peculiar type of accident struck two housewives undertaking a household chore in separate locations but under similar circumstances. Both were using an ordinary toilet bowl cleaner. Dissatisfied with the way stains were being removed, each decided to add a household bleach and stirred the mixture with a brush. As a result, one died quickly—the other spent a long, long time in a hospital.

In another example, twenty people were overcome a short time ago by toxic gases released from a do-it-yourself cleaner, a witches' brew of cleanser, chlorine bleach, and ammonia.

What occurred in each of these cases was the generation of a poisonous gas when the users decided to combine two or more cleaning agents commonly found in almost every household. The addition of the old familiar chlorine bleach to an acid-producing substance, such as a toilet bowl cleanser or just plain vinegar, suddenly releases a quantity of toxic chlorine gas. Similarly, when it is mixed with other alkaline matter—ammonia or lye—the chemical action liberates a highly irritating gas. If inhaled, these fumes can cause serious injury and possibly death.

Don't make the mistake of thinking because certain household products are good and useful, a combination will do the job better. On the contrary, this may be not only a waste of time and effort, by producing poorer results through neutralizing or diluting one another, but it may prove disastrous. Stick to the safe rules: Read the label carefully and follow the manufacturer's directions exactly. Keep in mind that modern scouring powders often contain chlorine bleach.

Never mix—

Bleaching agents and toilet bowl cleansers.
Bleaching agents and ammonia.
Bleaching agents and lye.
Bleaching agents and rust remover.
Bleaching agents and vinegar.
Bleaching agents and oven cleansers.

In short, never mix bleaching agents with any other cleaning components for any reason.

—Chicago Fire Prevention Bureau.

More women seriously imbibing

You may have noticed more women drinking than ever before. So have some of our leading health authorities. It's a situation that is growing increasingly serious.

The number of women in Alcoholics Anonymous has increased about

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50 percent in a three-year period. The National Institute of Alcohol Abuse and Alcoholism estimates there are about 10 million alcoholics in the United States—nearly a fourth of them women.

Dr. Jean Kilpatrick, the founder of Women for Sobriety, Inc., Quakertown, Pennsylvania, says the numbers are going up because it's more acceptable today for women to confess their alcoholism.

Actually, she says, women always drank, only many did it in secret. But now, with more women working and greater workplace pressures, the number of women drinkers continues to grow, and it is catching up to men.

Too often, she says, the warning signs of trouble go unnoticed by both the woman alcoholic and her family. Still, if alcoholism is recognized early there is a good chance of receiving help.

Some clues for detection include memory lapses, frequent falls, obvious intoxication after only one or two drinks, weight gain despite irregular eating habits, housekeeping neglect, financial problems, and absences from the job.

—*The Family Economist,* 1850 K Street NW., Washington, D.C. 20006.

In case of fire . . .

When was the last time you took a household inventory?

Although 29 percent of the public have taken such an inventory, for the rest of us the last time might have been never.

Listing everything of value and putting the list away in a safe place could be valuable in case of fire or burglary, says the American Council of Life Insurance.

It's also a good idea to keep all your life and health insurance policies in a safe-deposit box, says the Council. However, it's a good idea to keep a list of these policies—companies and number—in another safe place.

—*The Family Economist,* 1850 K Street NW., Washington, D.C. 20006.

Sleep patterns can change personality

Sleep longer, live longer; sleep shorter, be more energetic.

There appears to be a link between the amount of sleep one gets at night and one's personality. That is the conclusion derived from ten years of sleep research by Robert A. Hicks, professor of psychology at San Jose State University. Dr. Hicks is studying REM (rapid eye movement) sleep deprivation. Depriving mice of REM sleep results in a number of behavioral changes. Some of the same traits can be seen in humans who habitually sleep for relatively short periods of time (six hours or less).

Shortened sleep periods result in increased energy, dominance, adventuresomeness, aggression, motivation, preprogrammed thinking, and the premature aging of some human abilities. Sleep deprivation also decreases divergent thinking, ability to cope with stress, emotionality, and the threshold of pain.

REM sleep is fragile, easily disturbed. All types of addictive drugs reduce REM sleep. Travel interferes with REM sleep and produces jet lag and the "first-night affect" that so many people experience in new surroundings.

Hicks's years of study and research have resulted in a "robust body of literature" attesting to the generalized results. Hicks himself is a confirmed variable sleeper, gaining the benefits of both types. With sleep-pattern manipulation, Hicks believes, it may be possible to be an energetic oldster able to cope with the stress of long life.

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—News release, San Jose State University, Office of Community Relations, Washington Square, San Jose, California 95192.

Aged dispel stereotypes

Stereotypes to the contrary, elderly people are feeling better than ever before, according to the Health Insurance Association of America.

Responding to a recent survey, about 6 in 10 persons aged 65 and older described their health as "good" or "excellent." In 1972 about 5 in 10 older persons said they were in good health.

In addition, the study shows that older Americans—although they may have to restrict their activities because of health conditions—are less likely to suffer injuries than the rest of the population. The injury rate for persons over 65 in 1980 was about 17 per 100 individuals, while the injury rate for the total population was around 31 per 100.

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

Busting out all over?

You know that you're overeating
And going to extremes
When you're aware you're living
Far beyond your seams!

Ruth M. Walsh

Trimming health-care expenses

Before you become ill or injured, following these few tips could speed your recovery and help cut the costs of medical care.

Don't wait for an emergency to select a doctor. While you're in good health, find a physician in whom you have confidence. Once you and your doctor know each other and your medical records are up-to-date, it may be possible to phone him about minor ailments—a good way to help cut your medical-care costs.

If surgery is recommended ask your doctor whether "same day" surgery is available. Outpatient surgery is often appropriate for a number of operations. Not only do you get home sooner but you avoid the cost of spending a night in the hospital.

If nonemergency surgery is advised consider asking another doctor for his opinion on the appropriateness of the surgery.

Treatment at home may be preferable to treatment in a hospital, and it's usually less costly. Studies have shown that home care is particularly suitable for the aged, persons with mild psychiatric problems, or persons with chronic illnesses, such as arthritis. Ask your doctor whether home care is medically suitable for you.

These and other tips are in a pamphlet entitled "How to Use Health Care Services Wisely," offered by the Health Insurance Association of America, 1850 K Street NW., Washington, D.C. 20006.

These quick actions could save your life in a hotel fire.

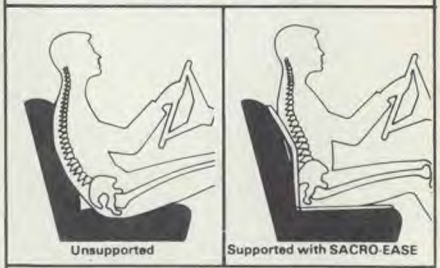
If you're caught in a hotel fire, taking certain actions could save your life.

Here are some tips given by Michael Shenkman of the National Fire Protection Association:

- If you discover a fire in the hotel, remember that you are responsible for protecting yourself. Call the fire department yourself—don't wait for someone else to do it. Hotel personnel usually don't call the fire department until they have confirmed that there is a fire, and by then it could be too late.
- Don't panic; avoid smoke. By remaining calm and avoiding smoke, you can increase chance of survival. Because smoke rises, always crouch down close to the floor.
- If a fire starts in your room, "leave, closing all doors behind you to contain the fire, and immediately notify the appropriate authorities (hotel personnel and fire department)."
- If the fire starts somewhere else in the hotel, you may or may not decide to leave your room. In making the decision, feel the top of the door. If it's cool, open it slowly, crouch low to avoid smoke, and crawl near the wall to the nearest fire exit. *Make sure you have your room key,* should you have to return to your room. Go down the stairs, and out, away from the building. However, if hotel personnel are giving instructions, follow them, as they may want you to go up a few floors to avoid the fire.
- Never use an elevator during a fire, since frequently it will not work.
- If you can't reach a fire exit because of too much smoke, stay in your room and keep the door closed. Turn off all ventilation systems, such as heaters or air conditioners. Place a wet towel over your mouth and nose to filter smoke. Fill the bathtub with water; wet towels and place them around cracks in the doorway and in vents. Wet everything down, and "don't worry about the mess."
- Call the front desk to let someone know where you are, or signal at the window so that someone can see you. If there is smoke in the room, pull down the drapes, and open the window a little if the air outside is clear. However, don't break the window, as you may have to close it later.
- Finally—no matter how bad it looks—don't jump. Unless you're on the first floor, your chances of survival are better if you wait for help.

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

You Can Feel Only As Good As Your Back Does



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BOOKSHELF

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The Caring Family: Living With Mental Illness, Kayla F. Bernheim, Richard R. J. Lewine, Caroline T. Beale. Random House, Inc., New York, New York, 10022, 1982, 226 pages, $13.50.

The subtitle is chilling, but when we consider that one out of every ten individuals is at least partially disabled by mental illness and that some two thirds of these people live with or are cared for by their families, the book becomes pertinent.

Strictly objective, *The Caring Family* uses only enough case histories to illustrate the point that the authors stress. In general terms, although caring for a mentally ill relative at home is difficult, demanding, and at times embarrassing, it can usually be successfully done; and by the use of certain techniques the burden can be eased to some extent. The caring relatives can learn to handle their guilt, anger, and various detrimental emotions.

One of the most moving chapters endeavors to show the reader the anguish that is the daily portion of the ill person—the doubts, discouragement, and loss of hope that hound him as he finds himself losing control of his life.

Probably most affected by a mentally ill relative in the home are the young people growing up there. Besides the heavy burden of shame and resentment they carry, there is the haunting fear that they too may become ill. While it is true that the risk of some mental illnesses is increased in first-degree relatives (parents, siblings, children), yet the good news is that 90 percent of those concerned *do not* develop the illness.

Included in the book is a glossary of terms that apply to mental sickness, a listing of the latest psychiatric medications, along with their generic names and the symptoms for which they are administered, and listings of family self-help organizations in thirty-three States, the District of Columbia, and six foreign countries.

Families who are looking for help in this area will find this book helpful. Someone has cared enough to write of the behavior problems typical of the mentally ill and how to handle them; someone has searched out the procedures involved in getting professional help if and when needed. These authors have anticipated the needs of both the ill person and those who bear the burden of his care. They have produced an informative, compassionate guide to help make the best of a difficult situation.

Reviewed by
Bobbie Jane Van Dolson

Parent Power! Dr. John K. Rosemond. The East Woods Press, 820 East Boulevard, Charlotte, North Carolina 28203, 1981, 240 pages, $12.95.

"This book had its beginning on the morning of January 22, 1969. As the first light of the sun cracked the winter sky, my firstborn announced his arrival.

"I was 21, going on 17. My wife, Willie, was a much older and wiser woman of 19 (going on 20). We named our son Eric Brian because it conveyed a bold, authoritative feeling. He was, we were certain, destined for greatness. A name like Eric Brian was the least we could do to help him on his way. . . .

"Eric Brian's daddy was going to become a psychologist. You know—predict the future, read minds, and know the question to every answer. . . .

"The Perfect Mother! The Perfect Father! Therefore, the Perfect, Problem-free Child!"

The disillusionment, as every parent knows, came rapidly. And when the author had gotten over the shock, and realized that the home must not be run by babies, but by parents, he began to look for common-sense answers for doing just that. And it dawned on him that there must be rules in a home, because rules protect. Rules are vital, he points out, but they must be reasonable ones parents not only can but will enforce. Otherwise, forget it.

In the context of fair but firm rules, Dr. Rosemond, who did get to be a psychologist, and now writes a widely distributed newspaper column on rearing children, has written this book. In it he makes suggestions on dozens of problems parents run into while rearing children into the early teens. (That's as far as he can go at present, because that's where his oldest child is.)

He has interesting things to say about most of the subjects he covers. How about the hyperactive child? What about day-care centers? Should a preschool child be taught to read? What about thumb-sucking? What do you do when your child won't eat what's on the table? How to handle problems children have with their friends? What do you do when your kid can't or won't sleep? And then there's the sticky one: How do you handle defiance?

Television for children? Dr. Rosemond makes his view clear. "Contrary to what children's television proponents would have us believe, television is not, and can never be, a child's best friend. It is, instead, one of his worst enemies. A child's time is better spent doing just about anything other than watching television."—Page 208.

In the main, Dr. Rosemond gives parents good counsel in the book—and they'll be entertained while getting it.

The Father Book: Pregnancy and Beyond, Rae Grad, R.N., Ph.D., et al. Acropolis Books Ltd., 2400 17th Street NW., Washington, D.C. 20009, 1981, 263 pages, $8.95 paperback.

Today most doctors are convinced that the father is vital to successful pregnancy and childbirth. This book tells fathers all about the biology, issues, and joys of pregnancy, childbirth, and fatherhood, and explores the feelings, ideas, and experiences of fathers during the transition to parenthood.

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