

YOU- TURN

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 **Pacific Press**[®]
Publishing Association
Nampa, Idaho | www.pacificpress.com

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Additional copies of this book can be obtained by calling toll-free 1-800-765-6955 or by visiting <http://www.adventistbookcenter.com>.

Library of Congress Cataloguing-in-Publication data:

Diehl, Hans, and Aileen Ludington

You-turn, by Hans Diehl and Aileen Ludington

1. Health. 2. Self-care, Health. I. Ludington, Aileen, joint Author.

II. Title.

613

ISBN 978-0-8163-6093-2

August 2018

DEDICATION

To the memory of Denis P. Burkitt, MD, British medical pioneer, prevention-oriented visionary, physician role model, loyal CHIP supporter, personal mentor, and dear friend.

To the more than 80,000 graduates of the Complete Health Improvement Program (CHIP) (see page 73), who continue to validate in their daily lives the lifestyle medicine principles in this book. Many have experienced the arrest and reversal of many lifestyle-related chronic diseases with an often dramatically improved level of health and quality of life with an accompanying reduction in the requirements for medications and procedures.

To Residential Lifestyle Centers that demonstrate month by month with real people that the principles in this book really work. Such live-in centers include the NEWSTART Lifestyle Center in Northern California (800-525-9192) and the Black Hills Lifestyle Medicine Center in the Black Hills of South Dakota (605-255-4101).

A WORD TO THE WISE

Consciously or unconsciously, most people make sacrifices of some sort. Unfortunately, in the process, and all too often, they sacrifice health, family, and other priceless possessions in order to gain the transitory pleasures of wealth, power, status, or fame.

And yet, in the end, many discover that the only true wealth is resilient health. While some may argue that health is not everything, yet without it, everything is nothing.

YOU-TURN will empower you to make some lifestyle changes to prevent and even reverse many of today's killer diseases, which are largely lifestyle related: how we eat and drink, whether we smoke and exercise, and how we handle the stresses of life. *YOU-TURN* will help you discover—day by day, and step by step—not only a better life but the best life. After all, life and health are largely matters of choice and not of chance.

Our health is obviously powerfully influenced by what we eat. Some people, especially those with heart disease, diabetes, excess weight, or high blood pressure, usually make a firm decision to let go of eggs, dairy, meat, sausages, and the refined and engineered foods produced for taste and profit but not for health.

Instead they focus on fruits and vegetables, on whole grains and legumes, they add some nuts and seeds, and they drink plenty of water. And they usually do very well. Within four to six weeks, their elevated cholesterol, as a powerful indicator of coronary risk, will drop 10 to 20 percent, thus lowering their coronary risk by 35 to 50 percent. Those with their excess weight learn that they can eat more (but of the healthy food) and still drop excess weight. And those with diabetes (type 2), in following these dietary guidelines, will see quick reductions in their blood sugar levels and with that a reduction in medication as well.

But then, there are some who may not yet see the need to begin the disease reversal process. They feel young and indestructible. And then there are others who are not yet ready for making this breakthrough decision. To those we extend our best wishes, as we encourage them to begin to move progressively toward the right-hand side of the upper green-colored triangle (see page 67). The evidence is very clear: the further they move toward the right-hand side, the more disease prevention and reversal, and the more resilient health and greater longevity they can expect.

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THE SOLUTION TO MOST OF OUR HEALTH PROBLEMS TODAY DOES NOT DEPEND ON PHYSICIANS, TECHNOLOGICAL ADVANCES, OR THE QUALITY OF OUR HOSPITALS. OUR HEALTH TODAY IS LARGELY DETERMINED BY OUR LIFESTYLE CHOICES, OUR PHYSIOLOGICAL INHERITANCE, AND OUR PHYSICAL ENVIRONMENT.

MEDICAL OVERVIEW

Myths and Miracles

The achievements of science, medicine, and public health in the twentieth century were enormous. America has become an undisputed leader of quality medical care. There is much to be proud of, and more to come.

THAT'S ESPECIALLY INCREDIBLE CONSIDERING THAT GERMS WERE DISCOVERED ONLY ABOUT 150 YEARS AGO.

It has been a big jump from Louis Pasteur's discovery of the germ theory to the place we are now. His findings opened the door to antiseptic surgery, improved sanitation, cleaner water, safer food, and vaccines. All of these impacted infectious diseases such as typhoid, cholera, poliomyelitis, and smallpox. Once a leading cause of death in developed countries, infectious diseases have

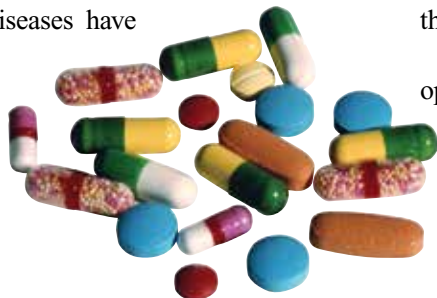
now been upstaged by the noninfectious degenerative-type diseases, increasingly referred to as modern or lifestyle diseases.

WHAT DO YOU CONSIDER THE MEDICAL LANDMARKS OF THE TWENTIETH CENTURY?

There are many. Improved surgical techniques, better anesthesia, and safer blood transfusions, for starters. Antibiotics have saved millions of lives, although their overuse is producing a frightening backlash—resistant strains of bacteria that are often unaffected by present treatments.

Advances in diagnostic technology are prodigious. The inside workings of various body organs can now be visualized, measured, and studied, and even thought patterns and emotions can be traced as they travel in the brain.

Molecular biology and genetics are opening doors to more new worlds. Many birth defects can now be detected in advance, and some can be corrected in the uterus, before birth. Geneticists are learning to pinpoint predispositions to certain diseases in the DNA,



and are looking for ways to affect the outcome.

For medical technology in the years ahead, there is no end in sight. As scientists seek to clone spare body parts from people's own cells, the limiting factors may well be cost and affordability.

NO WONDER PEOPLE LIVE SO MUCH LONGER TODAY!

Actually that belief is largely a myth. For years people believed that the miracles of modern medicine were mainly responsible for extending our current life span by some 27 years, when compared to those who were born 100 years ago.

The fact is that around 1900 every sixth baby died before reaching the first year of life, mainly because of infectious diseases. This, then, greatly shortened the average life span of their society.

Today, however, a person age 65 has very nearly the same life expectancy as a person back then who survived that critical first year of life, with perhaps an average gain of around six or seven years at most.

THEN WHY DO WE SEE SO MUCH MORE "DEGENERATIVE DISEASE"? ISN'T IT BECAUSE MOST OF OUR ANCESTORS DIED WHILE THEY WERE STILL TOO YOUNG TO EXPERIENCE THE DISEASES OF "OLD AGE"?

The expression "degenerative disease" is really a misnomer. For years, people fatalistically accepted the idea that atherosclerosis-related diseases (such as coronary heart diseases and stroke), cancer, diabetes, diverticulosis, arthritis, and other ailments were diseases of old age and therefore to be expected.

Nothing could be further from the truth, because in Western society 100 years ago:

- **Atherosclerosis**-related diseases were virtually unknown. The first description of coronary artery disease and "heart attacks" appeared in the medical literature in 1910. Today these diseases are responsible for every third death.



- **Cancers** of the breast, colon, prostate, and lungs were virtually unknown. These cancers are now claiming one out of every four American lives.



“THE CONCEPT THAT MODERN KILLER DISEASES ARE LIFESTYLE-RELATED AND THEREFORE POTENTIALLY PREVENTABLE AND REVERSIBLE IS THE MOST IMPORTANT MEDICAL DISCOVERY OF THE TWENTIETH CENTURY.”

—Denis Burkitt, MD, England
Discoverer of Burkitt’s Lymphoma

• **Similarly**, very few diabetics were known then. Yet today diabetes rates are increasing with frightening speed. Diabetes and its complications now represent one of the most frequent causes of death.

IN LIGHT OF THE ADVANCES IN MEDICAL SCIENCE, THAT IS TRULY AMAZING. SHOULDN’T THESE DISEASES BE DECREASING?

It’s important to understand that these diseases are actually not “degenerative”—they are not necessarily the result of growing older. The fact that an increasing number of younger people are suffering from them refutes this, as does their increase to near-epidemic proportions despite everything medical science can do.

Modern epidemiology (the study of disease differences in world populations) is unraveling the mystery—that most of these modern

killer diseases are largely lifestyle-related. They are basically diseases of affluence—too much eating and drinking, too much smoking, and too little exercise. Medical science is treating the symptoms, but it’s time to attack the causes.

YOU MEAN PEOPLE CREATE THEIR OWN DISEASES? YOU CAN’T BE SERIOUS!

Yes, I am serious. When it comes to these largely lifestyle-related modern killer diseases, we need to recognize that our health depends not so much on technological advances in medicine or on pills and procedures but on our lifestyle choices, our physiological inheritance, and our physical environment. Good health in today’s world depends mainly on what we’re willing to do for ourselves—how we choose to live, especially how we eat, drink, exercise, and whether or not we smoke.

THAT'S PRETTY SCARY. YET IT'S GOOD TO KNOW THERE ARE THINGS I CAN DO TO IMPROVE MY OWN HEALTH.

That's the bottom line. More and more people are waking up to the fact that they must take charge of their own health and take responsibility for it. That's what this book is about. How to do it. How to live a quality life, and how to avoid the most common causes of premature disease, disability, suffering, and death. If we take advantage of the knowledge we have right now, most of us could live to be 100 in good health.

HOW ABOUT YOU? WHAT ARE SOME HEALTH HABITS YOU WOULD LIKE TO WORK ON?

Write them down in this space:

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____



HEART DISEASE I

Killer for Dinner

Hundreds of thousands of people die every year from heart attacks without a murmur of protest from the public, the press, or government agencies. Yet the nation's number one killer can be found right on the American dinner table!

DO YOU MEAN THAT WHAT WE EAT CAUSES HEART ATTACKS?

Not everything. The main culprits are excessive amounts of fat and cholesterol. The underlying problem is narrowing, hardening, and, eventually, plugging up of vital arteries that supply the heart with oxygen. The process is known as atherosclerosis.

People are born with clean, flexible

arteries. They should stay that way throughout life. The arteries of many who practice or imitate the Western lifestyle, however, are clogging up with cholesterol, fat, and calcium—a concoction that gradually hardens and eventually chokes off needed oxygen supplies.

During and after World War II most Europeans were forced to change their eating habits from their customary diet of meat, eggs, and dairy products to a more austere diet of potatoes, grains, beans, roots, and vegetables. The result? A dramatic decrease in atherosclerosis-related diseases, such as heart attacks, strokes, diabetes, and gallstones, as well as certain cancers and arthritis. The marked drop in these diseases was felt for as long as 15 years after World War II.

Since then, massive amounts of data have accumulated from research



FOUR THOUSAND TIMES A DAY SOMEONE IN THE U.S. HAS A HEART ATTACK.



**“HEART DISEASE BEFORE AGE 80 IS OUR FAULT,
NOT GOD’S FAULT, OR NATURE’S WILL.”**

—Paul Dudley White, MD

on animals and humans around the world. The results are essentially the same: diets high in fat and cholesterol produce elevated levels of blood cholesterol and heart disease. Diets low in fat and cholesterol reduce blood cholesterol levels and heart disease and even facilitate plaque reversal.

HOW CAN I TELL IF I HAVE ATHEROSCLEROSIS?

There simply aren't any hints of the problem until your arteries are seriously narrowed, or they plug up with a sudden plaque breakoff. Some people begin to experience angina (chest pain) on exertion. For many people a heart attack is the first sign of trouble. About one third of heart attacks result in sudden death.

WHO IS AT RISK FOR HEART ATTACK?

The famous Framingham Study has taught us that the risk factor concept is a good

way to determine the likelihood of coronary heart disease:

- The most serious risk factor by far is an elevated blood cholesterol. Men, 50 years and older, with cholesterol levels over 295 mg% (or 7.6 mmol/L) are five times more likely to develop atherosclerosis than men the same age with levels under 170 mg% (or 4.3 mmol/L). A 20 percent decrease in blood cholesterol levels lowers the risk of a coronary by 50 percent.
- By age 60, smokers are 10 times more likely than nonsmokers to die from heart disease. Some 155,000 deaths from heart disease and strokes a year are directly related to smoking, about 30 percent of the total.
- In North America every third adult has high blood pressure. This triples the likelihood of coronary death when compared to a person with normal blood pressure.



- Obese men are five times more likely to die of heart disease by age 60 than men of normal weight.
- Other risk factors are diabetes, elevated triglycerides, sedentary lifestyle, stress, and possibly an elevated homocysteine blood level. Fortunately, all of these risk factors can be controlled by changes in diet and lifestyle. Heredity, age, and gender are risk factors a person cannot control, but they are usually the least important ones.

WHAT ABOUT MEDICATIONS AND SURGERY?

For those with dangerous cholesterol levels that do not respond adequately to diet, medications may be needed. Medications, however, are expensive. Furthermore, most have serious side effects. They require frequent laboratory tests and physician checkups.

More glamorous are the surgical procedures: bypass operations, roto-rooter cleanouts, balloon stretching, and stenting. Some results have been spectacular. But as time goes on and statistics accumulate, it is becoming apparent that most of these operations do not prolong life or even necessarily improve it.

Medical treatment is temporary at best. The only long-term solution is a serious lifestyle change. Everything else bypasses the true solution!

SO WHAT IS THE BEST APPROACH?

It is always better to prevent than to repair. But if heart disease has developed, as suggested by the presence of coronary risk factors and documented by diagnostic tests, it still isn't too late to make lifestyle changes. You can actually clean out your arteries, lower your risk of dying of atherosclerosis, and extend your active, productive years. You can markedly change your risk factors no matter how old you are, often in just a few weeks.

Start with healthful, home-cooked meals that are very low in fat and cholesterol, yet high in unrefined complex carbohydrates and fiber. Such a diet can lower elevated cholesterol levels by 15 to 25 percent and reverse many cases of diabetes in less than four weeks (see p. 34). When combined with salt restriction, this diet will also help normalize blood pressure and control obesity (see pp. 20 and 50).



“PEOPLE IN FRAMINGHAM WITH CHOLESTEROL LEVELS BELOW 150 MG% HAD NO HEART ATTACKS.”

—William Castelli, MD, reporting on the famous Framingham Heart Study

Begin an active daily exercise program.

If Americans would lower their cholesterol to below 180mg% (4.3 mmol/dL) and their blood pressures to under 125 mmHg and quit smoking, it has been estimated that 82 percent of all heart attacks before age 65 could be prevented. These simple changes in lifestyle would do more to improve the health of our nation than all the hospitals, surgeries, and drugs put together.

HEARTSCREEN:

INTERPRETING YOUR SCORE

0-6 IDEAL—Development of heart disease or stroke is extremely unlikely, especially if your cholesterol level is below 160.

7-14 ELEVATED—The development of heart disease or stroke is about one third of the U.S. average, yet three times higher

than for the ideal group.

15-22 HIGH RISK—This is the average. You cannot afford to be average, because your risk is 10 times higher than the ideal group.

23-30 VERY HIGH RISK—The development of heart disease and stroke is about three times the U.S. average, or 30 times higher than the ideal group. Action is imperative! You may be able to drop four points on this test within four to eight weeks by lowering cholesterol and blood pressure through dietary change.

31-38 DANGEROUS—The likelihood of having a heart attack or stroke is about four to six times the U.S. average and about 50 times higher than the ideal group. Set goals and take action without delay!



SEEING IS BELIEVING . . .

THIS HEARTSCREEN TEST WILL HELP YOU IDENTIFY AND UNDERSTAND YOUR OWN RISK FACTORS, AND GUIDE YOU IN DEALING WITH THEM. IT WILL APPROXIMATE YOUR RELATIVE RISK AND WILL HELP YOU IDENTIFY AREAS THAT YOU MAY WANT TO WORK ON. IN THIS TEST, EIGHT RISK FACTORS ARE LISTED, AND SCORES FROM 1 TO 8 ARE ASSIGNED TO EACH FACTOR.

HEARTSCREEN SELF-SCORING TEST OF HEART ATTACK AND STROKE RISK

Risk Level and Score

Risk Factor	0	1	2	3	4	5	6	7	8
1. Cholesterol* (mg.%)	under 160	160-179	180-199	200-219	220-239	240-259	260-279	280-299	300 plus
2. Blood Pressure* (mmHg)	under 110	110-119	120-129	130-139	140-149	150-159	160+		
3. Smoking (cig./day)	none	up to 5	5-9	10-19	20-29	30-39	40+		
4. Overweight† (in %)	0-4	5-9	10-14	15-19	20-29	30+			
5. Triglycerides* (mg.%)	under 100	100-149	150-249	250-349	350+				
6. Diabetes (duration)	none	under 5 years	5-10 years	10+ years					
7. Resting Pulse (beats/min.)	under 56	56-62	63-69	70-80	80+				
8. Stress	rarely tense	tense 3x/wk	tense 2-3/day	tense, rushed, or on tranquilizers					

Risk Factor

Score

1. Cholesterol

2. Blood Pressure

3. Smoking

4. Overweight

5. Triglycerides

6. Diabetes

7. Pulse

8. Stress

Total Score:

* To determine your cholesterol, triglycerides, and blood pressure, just see your physician. The blood test is very simple and inexpensive, and takes about five minutes. What you learn may save your life! If you take blood pressure pills, score four points regardless of your blood pressure level.

† To determine your percentage of overweight, look up your ideal weight on p. 51, take its midpoint, and subtract it from your actual weight. Divide the difference in pounds by your ideal weight and multiply by 100.

HEART DISEASE II

Eat Your Way Out

The sports world rejoiced when former Yale president Bart Giamotti became commissioner of baseball. A few months later a shocked nation wept when this respected man died suddenly at age 51, attacked by his heart.



Listed as one of the 100 most influential people in the world, Tim Russert, America's beloved and respected television journalist, appeared for 16 years as the longest-serving moderator of NBC's *Meet the Press*. In April of 2008 he performed well on his doctor's stress test. Two months later, on June 13, at the age of 58, an important irreplaceable voice in American journalism had been silenced by an unexpected heart attack.

Scenarios like these are repeated thousands of times each day across North

America. Heart disease now strikes a deadly blow to three out of every 10 Americans. And it is going global.

IS THERE NO WAY OUT? DOES IT HAVE TO BE LIKE THIS?

Yes . . . and no.

As long as people continue to eat their rich, fatty diet, the statistics will remain the same. We've known for years that a diet high in fat and cholesterol is the primary and essential cause of coronary heart disease. But there is a way out: it requires that we lean out our high-fat diet. To the extent that we commit to do this, we can help prevent and even reverse heart disease.

ARE YOU SAYING THAT HEART DISEASE MAY BE CURABLE?

It looks more and more that way.

The idea took on a life of its own when a young cardiologist, Dr. Dean Ornish, published a report in the *Lancet* medical journal, in 1990, that shook up the medical community. Dr. Ornish spent one year studying 48 men with advanced heart disease, many of whom were candidates for coronary bypass surgery.

He randomly assigned the men to two groups. Both groups were asked to quit

smoking and to walk daily. In addition, the first group practiced stress management and followed a strict plant-based, whole-food diet with less than 10 percent of calories as fat and with virtually no cholesterol.

The second group was given the standard American Heart Association's "Prudent Diet" for heart disease. This diet allowed 30 percent of calories as fat and up to 300 milligrams of cholesterol a day. At the end of the year, when the results were presented at the Scientific Session of the American Heart Association in Washington, D.C., they became front-page news all over America.

Dr. Ornish reported that those on the very low-fat, plant-based, whole-food diet not only dropped their dangerous LDL-cholesterol levels by 37 percent, but 82 percent of their narrowed,

plaque-filled arteries had actually widened, allowing more blood and oxygen to nourish the heart muscle. The heart disease had, in fact, begun to reverse itself. And the older men with the most advanced disease actually had the best results.

The group on the so-called Prudent Diet, however, had virtually no cholesterol drop, and most of their coronary arteries showed increased narrowing. In general, their heart disease had actually

gotten worse.

YOU MEAN THE AMERICAN HEART ASSOCIATION'S DIET DID NOT HELP AT ALL?

It appears that their Prudent Diet, designed for the prevention and treatment of heart disease, does not do its job. At the press conference Dr. Ornish concluded:



YOU CAN ACTUALLY CLEAN OUT YOUR ARTERIES, LOWER YOUR RISK OF DYING OF ATHEROSCLEROSIS, AND EXTEND YOUR ACTIVE, PRODUCTIVE YEARS. YOU CAN MARKEDLY CHANGE YOUR RISK FACTORS NO MATTER HOW OLD YOU ARE, OFTEN IN JUST A FEW WEEKS.



KEYS TO REVERSING HEART DISEASE

IT MAY BE THE NATION'S LEADING CAUSE OF DEATH, BUT IT NEEDN'T BE YOURS.
AND YOU CAN ACTUALLY REVERSE IT!

1. REDUCE BLOOD CHOLESTEROL TO LESS THAN 160 MG% WITH A VERY LOW-FAT, HIGH-FIBER VEGETARIAN DIET AND WITH CHOLESTEROL-LOWERING MEDICATION AS LAST RESORT.
2. LOSE WEIGHT BY EATING MORE FOODS-AS-GROWN AND LESS REFINED FOODS AND ANIMAL PRODUCTS.
3. DROP YOUR HIGH BLOOD PRESSURE BY CUTTING THE SALT TO LESS THAN 4 GRAMS (OR 4,000 MILLIGRAMS) A DAY, AND BY GETTING INTO A DAILY EXERCISE PROGRAM.
4. STOP SMOKING AND REDUCE ALCOHOL INTAKE. ALCOHOL IS TOXIC TO A STRUGGLING HEART.

“The moderate diet recommendations of the American Heart Association do not go far enough to effectively influence the progression of coronary heart disease. People with clinically demonstrated disease need to go beyond the present dietary recommendation.”

In a study commenced in 1985 Dr. Caldwell Esselstyn, Jr., a well-known surgeon at the famous Cleveland Clinic, took 18 patients with established, serious coronary artery disease referred to as “the walking dead” with clearly limited life expectancy and instructed them to follow a very strict plant-based, whole-foods diet very low in fats, oil, and grease. Refined foods and animal products were not allowed.

Prior to joining the dietary experiment, these 18 coronary patients had suffered 49 cardiovascular events (such as angina and heart attacks, strokes, bypass surgeries, angioplasties) over a period of eight years with

cholesterol levels around 230 (5.9) while under excellent cardiological care at the Cleveland Clinic. In his 12-year follow-up report in the *American Journal of Cardiology*, Dr. Esselstyn showed one cardiovascular event!

Dr. Esselstyn was able to document angiographically that atherosclerotic plaque had consistently not only been halted and arrested but also reversed. His documented 20 to 30 percent regression facilitated an often dramatically improved blood flow to the heart muscle, which, in general, alleviated angina pain often in weeks and reduced the need for angina medication. His 20-year follow-up findings on the remaining 17 patients have been published in his 2007 book *Prevent and Reverse Heart Disease*.

We have known for years that much of today's coronary heart disease can be prevented. But it's exciting to realize that, under the proper conditions, it is now also possible to reverse it. These

revolutionary studies suggest that, given the proper diet, we may be able to eat ourselves out of heart disease.

A KILLER ON THE LOOSE

Heart attacks are the leading cause of death in the United States—and too much fat, especially saturated fat, is the leading cause of heart attacks. It's been said that excess fat is the most harmful element in the Western diet. Isn't it time you reduced the amount you are eating?

GETTING THE FAT OUT

Here are four general strategies you can use to reduce the fat in your diet.

Substitute: Drink skim milk instead of whole milk. Or, better yet, use a nondairy substitute. Try a bowl of chilled fruit instead of ice cream for dessert. Look for healthful substitutes for the high-fat items in your diet, such as cheeses, meats, dressings, and oils.

Reduce: Instead of ordering an eight-ounce steak, try a smaller portion with pasta or a vegetarian lasagna. Instead of a whole piece of pie, take just a sliver. Eating smaller portions of your favorite high-fat foods allows you to savor a few decadent bites while still cutting fat from your diet.

Eliminate: Eliminate as many temptations as possible. If you don't buy it and bring it into the house, you won't eat it.

Eliminating high-fat foods can work wonders. In the headline-making

studies of Drs. Ornish and Esselstyn, the subjects who reversed the narrowing in their arteries were those who had eliminated meat and high-fat dairy products entirely.

Construct: Processed foods are stuffed with added fat. If you want to regain control over what goes into your body, cook for yourself. Get a good low-fat cookbook (see p. 74) and learn how to prepare delicious new dishes. It's the surest way to protect yourself from the deadly effects of too much fat.

GET STARTED!

List some specific ways you can apply the principles of substitution, reduction, elimination, and construction to your diet:

Substitution:

Reduction:

Elimination:

Construction:

HYPERTENSION

The Silent Killer

Every third adult in North America has high blood pressure. These hypertensives are three times more likely to have a heart attack, five times more likely to develop heart failure, and eight times more likely to suffer a stroke than people with normal blood pressure.

HOW CAN I KNOW IF I HAVE HYPERTENSION?

Hypertension is defined as a systolic blood pressure reading (the top number) consistently over 140, and/or a diastolic

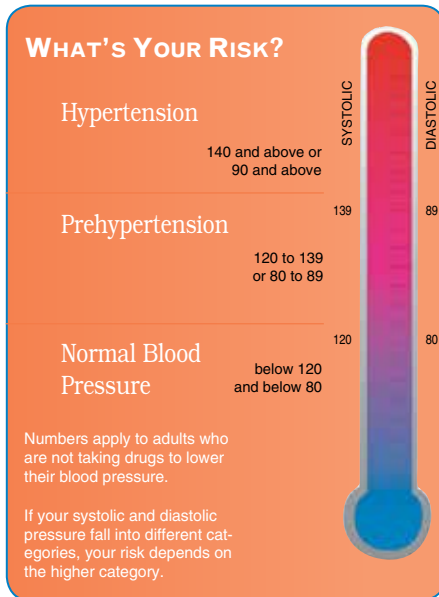
(lower number) reading of 90 or above. The optimal level is now 120/80 or below. Even though high blood pressure has no symptoms (that's why it is called the silent disease), it can cause progressive changes in the blood vessels until the first sign hits, usually a stroke or a heart attack.

WHAT CAUSES THE BLOOD PRESSURE TO GO UP?

Certain kinds of tumors will do it; also diseases within the kidney itself. But in 90 to 95 percent of everyday hypertension, no specific organic causes can be determined. For this reason this kind of hypertension is called primary or essential hypertension.

The following factors contribute to essential hypertension:

- **High Salt/Sodium Intake.** Surprisingly, hypertension is uncommon in populations whose salt intake is very low. In countries with high salt intake, however (as in Japan), the disease is epidemic. Americans consume, on average, in excess of 10 grams of salt per day. That's two to three teaspoonsful, or about 10 times the amount of salt that the body actually needs! And





AMERICANS EAT 10 TIMES MORE SALT THAN THEY NEED. AND THEY PAY FOR IT WITH HIGH BLOOD PRESSURE, HEART FAILURE, AND OTHER PROBLEMS RELATED TO FLUID RETENTION.

it's the sodium in salt (sodium chloride) that is responsible for the effect on blood pressure. Every gram of salt contains .4 grams of sodium. Or every 1,000 milligrams of salt contains 400 milligrams of sodium.

- **Low Potassium.** The potassium/sodium ratio is of critical importance. Eating more vegetables while reducing salt would greatly increase this ratio and lower elevated blood pressures.

- **Obesity.** Nearly everyone who is significantly overweight will eventually experience high blood pressure. It's just a matter of time.

- **Arterial Plaque.** Narrowed and plugged arteries force the body to boost the blood pressure in order to deliver necessary oxygen and food to body cells.

- **Lack of Exercise.**

- **Smoking.**

- **Alcohol.** Scientific studies have demonstrated that even moderate use

of alcohol may account for 5 to 15 percent of all hypertension.

- **Estrogen.** This hormone, found in birth control pills and used to ease menopausal symptoms, is also a salt retainer. It can raise blood pressure and weight by holding excess fluid in the body.

WHY DO WE EAT SO MUCH SALT?

The most recent guidelines by the American Medical Association suggest a more ideal sodium content of 1,500 milligrams/day, or less than 4,000 milligrams of salt. That's less than four grams of salt, or less than one teaspoon.

In today's life it's hard to get away from salt. About 75 percent of our salt intake comes from fast and processed foods, and from foods eaten in restaurants. A taste for salt is easy to develop, and salty snacks and foods abound to accommodate us.

WHAT ABOUT MEDICATIONS FOR HYPERTENSION?

The past few years have produced an avalanche of new drugs that are effective in lowering blood pressure. Some are lifesaving. Most produce



EVERY THIRD ADULT IN NORTH AMERICA HAS A HIGH BLOOD PRESSURE. THIS PUTS THEM AT RISK OF HEART FAILURE, STROKE, AND OTHER DEBILITATING DISEASES. OBESITY, NARROWED ARTERIES, SMOKING, LACK OF EXERCISE, ESTROGEN, ALCOHOL, AND HIGH SALT INTAKE ALL CONTRIBUTE TO THE PROBLEM. FORTUNATELY, MOST CASES OF HYPERTENSION CAN BE REVERSED IN WEEKS BY SIMPLE DIETARY AND LIFESTYLE CHANGES.

prompt results—the quick fix that people love.

But a closer look at hypertension medications reveals some disquieting facts: the drugs do not cure hypertension; they only control it. Furthermore, these medications have to be taken for life. And they all may have side effects, such as fatigue, depression, gout, diabetes, and lack of sexual desire and impotence. While these drugs help protect against strokes, they do not give much protection against coronary atherosclerosis (the plugging of heart arteries).



most essential hypertension in a matter of weeks without drugs.

- A large percentage of people are sensitive to salt and would benefit from its reduction in their diets.
- When the weight goes down, blood pressure levels usually fall. Reducing excess weight is often the only treatment needed to correct a rising blood pressure.
- A diet very low in fat yet high in fiber lowers the blood pressure about 10 percent even without weight loss or salt restriction. Thinning of the blood from eating less fat and drinking more water helps produce these benefits.

WHAT ARE THE ALTERNATIVES?

- A number of major scientific studies have shown that simple dietary and lifestyle changes can reverse
- Deleting alcohol from the diet will lower blood pressure and do the body a favor in several other areas as well.

- Physical exercise lowers blood pressure by reducing peripheral arterial resistance. In addition, regular exercise promotes general health and well-being.

People taking blood pressure medications should not play doctor and change doses or stop medicines on their own. But those who are willing to make healthful lifestyle changes will usually find their physicians glad to help them eat and exercise their way out of hypertension and medication.

APPLICATION

A TREMENDOUS STEP

BECOME A LABEL READER

By carefully reading labels, you can

select products that are low in sodium. Watch for such words as “sodium” and “salt,” and avoid those products in which these terms are listed among the first five ingredients.

As a rule of thumb, choose packaged foods that have fewer milligrams of sodium than they have listed calories per serving.

HOW ABOUT YOU?

Are you surprised? Does it seem as if just about everything contains enough salt and sodium to pickle your insides? Don't despair. By eating an abundance of fresh and unrefined foods, you automatically cut the sodium (and fat) in your diet, and you'll get plenty of protective potassium.

GETTING THE SALT OUT

NOT SALTING YOUR FOOD IS A GOOD WAY TO START PROTECTING YOURSELF FROM STROKE. UNFORTUNATELY, ONLY 25 PERCENT OF THE SODIUM WE EAT COMES FROM THE SHAKER. THE REST IS HIDDEN IN RESTAURANT FOOD, PROCESSED FOODS, AND SNACKS. HERE ARE A FEW EXAMPLES.

SOME PROCESSED FOODS SODIUM (MG)

Good: less than 1,500 mg/day

Apple Pie (1 slice).....	320
Canned Chili and Beans (1 cup)	1,200
Rice-A-Roni Pilaf (1 cup).....	1,000
Wheaties (2 oz)	420
Potato Chips (Pringles) (7 oz).....	1,200
Tomato Sauce (½ cup)	380
Canned Tomato Bisque (1 cup).....	450
Corned Beef (3 oz).....	750
Cheese, American (2 slices).....	540
Kentucky Fried Chicken (3-piece meal)	2,240

STROKE

Stalking a Crippler

Two million Americans lie crippled from paralyzing strokes. After AIDS and cancer, stroke is probably the most dreaded and disabling disease to afflict Westernized civilizations.

WHAT ARE A PERSON'S CHANCES OF DEVELOPING A STROKE?

Some 600,000 Americans suffer strokes each year, and close to 130,000 die from them. As with heart attacks, serious and even fatal strokes can occur without warning. About one fourth of victims under age 70 die from the first attack; after that the figure doubles.

Of those who survive, 40 percent need some degree of ongoing special care, but only 10 percent require institutionalization.

The remaining 60 percent represent the good news. Some recover completely; nearly all improve enough to care for themselves; most are able to resume their normal activities.

WHAT CAUSES STROKES?

A stroke, or cerebral vascular accident (CVA), is most commonly related

to atherosclerosis—a thickening, narrowing, and hardening of arteries supplying the brain with oxygenated blood. This atherosclerotic process can occur both in arteries within the brain and in arteries leading to the brain. The roughened, ragged inner surfaces of damaged arteries become seedbeds for clot formation and plaque buildup. When obstruction is complete, the artery is said to be *thrombosed*.

Sometimes pieces of plaque or a blood clot break off from other parts of the circulatory system and travel to smaller brain arteries, producing obstruction. These are called *emboli*. Some 80 percent of CVAs result from either thrombotic or embolic arterial blockage.

Hemorrhages, or blowouts, cause the rest of the strokes. Most of these are associated with uncontrolled high blood pressure, which forces blood through cracks in stiffened artery



**NOT ONLY CAN YOU
SURVIVE THE GRIM
CONDITION—YOU
CAN PREVENT IT!**

walls. A few blowouts are caused by *aneurysms*. These are ballooned-out areas in certain arteries that eventually rupture. Either way, the result is bleeding into the brain.

Strokes do their damage by preventing fresh blood from reaching an area of the brain, which soon dies from lack of oxygen. If a large portion of the brain is affected, the stroke will be severe or fatal. A smaller area of brain damage will cause milder symptoms.

WHO IS AT RISK FOR STROKES?

Most strokes are directly related to high blood pressure. People with hypertension are eight times more likely to suffer a stroke than are people with normal blood pressure. The presence of atrial fibrillation (irregular heartbeat) increases stroke risk six times.

Blackout spells, called *transient ischemic attacks* (TIAs), may be early warnings. These are small strokes that start suddenly and disappear in

less than 24 hours. Most last only a few seconds, and recovery is complete. Persistent TIAs, however, increase the chances for a complete stroke, much as angina attacks increase the chances of a heart attack.

Other risk factors include elevated blood cholesterol and triglycerides, smoking, diabetes, obesity, and sedentary lifestyle. All of these contribute to the atherosclerotic process. In fact, the risk factors for stroke are basically the same as those for coronary heart disease, since both diseases are caused by underlying damage to vital, oxygen-carrying arteries.



CAN STROKES BE PREVENTED?

Yes, most strokes can be prevented.

In fact, strokes, like certain other lifestyle diseases, could become relatively uncommon within a generation if people would begin adopting, early in life, the healthful lifestyle practices already known today. These include the following:



STROKE IS ONE OF THE MOST DREADED AND DISABLING DISEASES AFFLICTING WESTERNIZED COUNTRIES, BUT IT IS NOT A DISEASE THAT ATTACKS INDISCRIMINATELY. IN SOME POPULATIONS STROKE IS VIRTUALLY UNKNOWN. YOU CAN REDUCE YOUR RISK BY ADOPTING A LIFESTYLE THAT PROMOTES HEALTHY ARTERIES AND LOW BLOOD PRESSURE.

- **Don't smoke.** One out of every six CVA deaths is directly related to tobacco use.

- **Check blood pressure regularly.** Hypertension has no symptoms, and it can sneak up on the unaware.

- **Learn to use much less salt.** In areas of the world where salt intake is low, hypertension is virtually unknown. In Japan, where salt intake was high, stroke has been the leading cause of death.

- **Normalize weight.** Obesity promotes atherosclerosis, hypertension, and most diabetes.

- **Eat a diet very low in fat and cholesterol, yet high in fiber.** Experiments have shown that keeping fat below 15 percent and cholesterol as low as possible protects the arterial linings from atherosclerosis.

- **Exercise actively and regularly.** Exercise improves circulation and helps control weight and hypertension.

WHAT ABOUT PEOPLE WHO HAVE ALREADY HAD STROKES? IS THERE HELP FOR THEM?

Definitely. The lifestyle that helps prevent strokes will also hasten recovery, as well as help prevent recurrent strokes.

Acute strokes require good nursing care and energetic rehabilitation involving intensive and consistent physical therapy.

Small doses of aspirin have been shown to help prevent some strokes in susceptible people, especially people with atrial fibrillation. Remember, however, that aspirin may also promote bleeding tendencies (strokes) and aggravate stomach ulcers.

The best news, however, is that arterial blockages are reversible.

Thickened, narrowed arteries slowly open again when a very low-fat, plant-based, whole-food diet is consistently followed, along with the other health practices advised. While these studies, so far, concentrate on coronary arteries, similar results are expected in arteries affecting the brain, since the underlying problem

is essentially the same.

Everyone is born with soft, flexible, elastic artery walls. Many populations around the world retain their healthy arteries and low blood pressures throughout their lifetimes. We can too if we get serious about pursuing healthful lifestyle practices before the damage is done.



APPLICATION

CHANGE YOUR BAD HABITS TO GOOD

GETTING THE SODIUM OUT

We all need to reduce the amount of sodium in our diet. Don't worry about not getting enough. For example, if you are like most Americans, you eat about 10 times more than you need. Three culprits responsible for much of this harmful excess are:

The Saltshaker. Throw it away. You already get a dangerously high amount of sodium from the food you eat. Don't add to the problem by pouring more on top. Your food will seem bland for a few weeks, but your taste buds will soon adjust, and you will begin to enjoy the subtle flavors of foods. The day will come when foods you now think of as delicious will taste salty.

Salty Snacks. Potato chips, pretzels, salted nuts, etc., are so dangerous they should have a surgeon general's warning on the box: "Warning: salty snacks are linked to hypertension, stroke, and heart disease. Eat at your own risk." If you must snack, use such substitutes as carrot sticks and sliced apples.

Fast Foods. If we would cut our sodium intake to less than 1,500

milligrams/day (or less than 4,000 milligrams of salt, or close to one teaspoonful), hypertension would virtually disappear. We will never reach that goal, however, until we break the fast-food habit. A McDonald's cheeseburger alone contains 800 milligrams of sodium. And a three-piece chicken dinner from Kentucky Fried Chicken contains more than 2,000 milligrams of sodium—more than you should eat for an entire day.

SUBSTITUTE

Get yourself started in a new direction. Use salt-free spice blends, such as *Mrs. Dash*, to liven up your food.

HOW ABOUT YOU?

List several things you can do to reduce your risk of stroke:

CANCER

Do-It-Yourself Cancers

Many cancers are turning out to be do-it-yourself diseases. We promote them by chronic exposure to certain environmental factors. What we eat and drink, where we live and work, and what we breathe may well determine whether we become a cancer statistic.

ARE YOU SAYING THAT WE BRING CANCER ON OURSELVES?

Medical science continues to make strides toward earlier detection and improved treatments for many cancers. But these efforts are largely after the fact. The sad truth is that the incidence rates for many adult cancers continue to rise. One in four American lives are now being claimed by cancer.

DEATHS FROM SMOKING/YEAR

LUNG CANCER	128,000
ALL OTHER CANCERS	38,000
CARDIOVASCULAR DISEASE	155,000
RESPIRATORY DISEASES	113,000
OTHERS	5,000
TOTAL FROM SMOKING	480,000

*INCLUDES 41,000 DEATHS AS A RESULT OF PASSIVE SMOKING.

This trend, however, could be reversed. If we would simply take the precautions that we already know about, 70 to 80 percent of the cancers that afflict Americans could be prevented.

WON'T PEOPLE DO JUST ABOUT ANYTHING TO AVOID SUCH A TERRIFYING DISEASE?

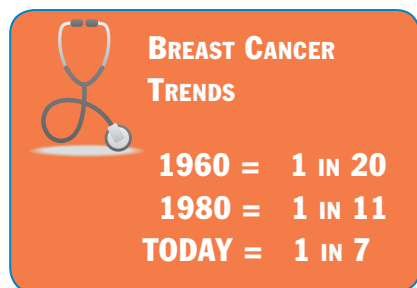
Almost anything, it seems, except change their lifestyles.

Take lung cancer (the cancer that kills more men and women in the United States than any other), for example. Ever since the surgeon general's report in 1964 we've known that lung cancer is directly related to cigarette smoking. It's true that millions have quit smoking, yet every fourth adult in North America still smokes! Some 80 percent of the cancers of the lung, lip, mouth, tongue, throat, and esophagus could be prevented if people simply stopped using tobacco. It would also prevent almost half of the bladder cancers. And by not smoking, the life expectancy of a smoker could be extended by almost 10 years.

ARE SOME CANCERS RELATED TO DIET?

In men the second and third most

frequently occurring cancers are those of the prostate and colon. For women it's cancers of the breast and colon. Extensive evidence links nearly 50 percent of these cancers to overnutrition—too much fat, too much animal protein, and too much weight.



THAT SOUNDS LIKE A LONG SHOT. WOULDN'T A MORE LIKELY CULPRIT BE THE MANY CHEMICALS THAT FIND THEIR WAY INTO OUR FOOD SUPPLY?

Carcinogens (cancer-producing chemicals) are a concern—especially with the array of additives, preservatives, flavor enhancers, pesticides, and other chemicals that we use in producing and marketing food. However, only 2 percent of all cancers can be reliably linked to these substances.

In contrast, evidence of the connection between cancer and such dietary factors as fiber, animal protein, and fat grows stronger every day. Compared with diets around 1900, the average American now eats one third more fat, twice as much animal

protein, and one third less fiber. In areas of the world in which fat and animal protein intake is low and fiber consumption is high, the incidence of colon, breast, and prostate cancers are negligible. In countries such as the United States, Canada, and New Zealand, where diets are low in fiber and high in fat and animal protein, the rates for these kinds of cancers are much higher.

COULD ETHNIC VARIATIONS, RATHER THAN DIET, ACCOUNT FOR THESE DIFFERENCES?

Researchers asked the same question. In a major study published in 1979 they found, for example, that Japanese living in Japan (and still living on a pre-Western diet) had very few of these cancers. In Japan, fiber consumption then was high and fat intake was low (15 percent of total calories). But when these Japanese migrated to Hawaii and adopted Western eating habits and lifestyles, then rates for these cancers increased dramatically and soon equaled those for other Americans.

HOW CAN SUCH THINGS AS FIBER, ANIMAL PROTEIN, AND FAT INFLUENCE CANCER?

Not all the answers are in yet, but cancer is associated with carcinogens—chemical irritants that can produce



LIFESTYLE FACTORS, SUCH AS SMOKING, OBESITY, CONSUMPTION OF ALCOHOL, AND A DIET THAT IS HIGH IN ANIMAL PRODUCTS AND FAT, ACCOUNT FOR UP TO 80 PERCENT OF ALL CANCERS.

cancerous lesions over time.

Bile acids are an example. The amount of fat in the diet affects the amount of bile the body produces. In



the intestinal tract some of these bile acids can form irritating carcinogenic compounds. The longer these compounds stay in contact with the lining of the colon, the more irritation results.

This is where fiber comes in. With a low-fiber diet, digested food moves

slowly through the intestines, often taking from three to five days to complete the journey from entry to exit. Most fibers absorb water like a sponge. This helps to fill the intestines and stimulates them to increased activity. With a high-fiber diet, food travels through the intestines in 24 to 36 hours.

This helps the colon in two ways. It shortens the exposure to irritating substances, and it dilutes the concentration of the irritants that pass through the colon thanks to fiber's water-holding ability and insulating effect.

Nitrites, as prominently used in meat, are another example. They can form N-nitroso compounds that are involved in carcinogenesis.

HOW DOES DIET RELATE TO BREAST AND PROSTATE CANCERS?

A high fat intake depresses the

THE RISKS OF CANCER

TOBACCO

Smoking causes one of every four cancer deaths in North America.

RED MEAT

Regular meat eaters have a three times higher risk of developing colon cancer when compared with occasional meat eaters.

JUNK FOOD

Those who fill up on doughnuts, sodas, and potato chips lose out on the cancer-fighting substances found in fruits and vegetables.

INACTIVITY

Those who log at least four hours of exercise a week cut their risk of breast and colon cancer by more than a third.

OVEREATING

Among women, being heavy adds markedly to the danger from breast, colon, and endometrial cancer. And men are pushing their luck with prostate and colon cancers.

ALCOHOL

Heavy drinking has been clearly linked to cancers of the liver, throat, and esophagus. In women, even a daily drink or two raises breast cancer risk.

DAIRY

Diets high in calcium and dairy are linked with an increased risk of prostate cancer.

activity of important cells in the body's immune system. This effect has been studied extensively in connection with breast cancer and may affect other types of cancer as well. Dairy products have been implicated in raising the risk of prostate cancer.

ARE OTHER LIFESTYLE AREAS CONNECTED TO CANCER?

Excessive alcohol consumption increases the risk for cancers of the esophagus, breast, liver, colon, and pancreas, and does so dramatically for those who smoke as well. Excess weight raises the risk of cancers of the breast, colon, kidney, endometrium, pancreas, liver, and esophagus. Then there are such things as exposure to asbestos, sidestream smoke, and toxic chemicals.

Just four lifestyle factors—no smoking, no alcohol, a vegetarian diet very low in fat and high in fiber, and normal weight—could prevent close to 80 percent of cancers found in Western society today. Instead of one American in four dying of cancer, the risk could be reduced to one in 20. It's not an impossible dream.

MIRACLE CURE?

Imagine announcing a pill that would make people immune to

cancer. It would be the news story of the decade. People would flock to their doctors for a prescription, and the inventors would be wealthy beyond belief.

No such pill exists. But there are a number of things we can do to prevent the majority of adult cancers.

A good place to start is with our diet. We can begin eating foods considerably lower in fat and cholesterol. Many studies have shown that such a diet reduces the risk of heart disease, diabetes, stroke, and many cancers.

But making lifestyle changes is not as simple as swallowing a pill. It involves learning new habits and skills. For example, cutting the fat

and cholesterol in our diet means preparing more meatless dishes.

One sensible way to develop these skills is by designating a day or two each week for vegetarian-style meals. This gives you a chance to experiment with healthful ways of cooking while gradually building up a new repertoire of favorite recipes.

GOOD EATING BEGINS WITH GOOD RECIPES

A good cookbook is an investment that will repay you many times over (see p. 74). There's no better tool when it comes to changing your eating habits.



MOVING TOWARD THE OPTIMAL DIET

- **USE WHOLE-GRAIN BREADS AND CEREALS. THEY HAVE THE VITAMINS, MINERALS, AND FIBER THAT PRODUCTS MADE WITH REFINED FLOUR LACK.**
- **ENJOY A VARIETY OF FRESH FRUIT EACH DAY.**
- **EAT A WIDE VARIETY OF VEGETABLES. DARK-GREEN LEAFY VEGETABLES ARE ESSENTIAL FOR GOOD HEALTH. (ONE CUP OF GREENS CONTAINS MORE CALCIUM THAN MILK.) YELLOW AND ORANGE VEGETABLES ARE HIGH IN VITAMIN A.**
- **ENJOY NUTS. THEY ARE HIGH IN MINERALS AND VITAMINS, BUT USE THEM SPARINGLY, BECAUSE THEY ARE HIGH IN FATS AND CALORIES.**
- **USE A WIDE VARIETY OF BEANS AND PEAS. THEY PROVIDE PROTEIN AND FIBER AND ARE LOW IN FAT.**

DIABETES

Disarming Diabetes

Since World War II diabetes has been advancing relentlessly in developed countries, where it is now one of the leading causes of death. And it is now exploding in countries such as China and India. If present trends continue, babies born today will have a one in three chance of becoming diabetic in their lifetimes. Until recent times, there has been no known cure.

And yet many people are now beating diabetes. They are normalizing their blood sugars, and they are getting off insulin. They're doing this by making better lifestyle choices.

WHAT EXACTLY IS DIABETES?

Diabetes occurs when the body becomes unable to handle glucose

(sugar), which builds up to dangerous levels in the blood. A diagnosis of diabetes is usually made when a blood sugar test is consistently above 125 mg% (above 7.0 mmol/L) after an eight-hour fast. Fasting blood sugar (FBS) levels of 100-125 (5.6-7.0 mmol/L) are known as prediabetes.

There are two kinds of diabetes. Type 1 afflicts about 5 percent of diabetics. They are usually thin and rarely overweight. This type of diabetes usually begins in childhood and is commonly known as *juvenile diabetes*. Since these diabetics cannot survive without insulin injections, it is now officially called *insulin-*



IN AMERICA, EVERY SECOND ADULT IS NOW EITHER A FULL-BLOWN DIABETIC OR A PRE-DIABETIC—DEVELOPING THE DISEASE!

dependent diabetes mellitus (IDDM).

Type 2 diabetes is different. Called *adult-onset diabetes* or *noninsulin-dependent diabetes mellitus (NIDDM)*, it is the more common kind, affecting more than 90 percent of diabetics.



While this type generally hits around age 50 as people get older and fatter, because of the recent epidemic of obesity some people are now developing this disease in their teens. In contrast to the juvenile diabetics, most type 2 diabetics have plenty of insulin in their bodies when diagnosed, but something blocks the insulin so that it cannot do its job effectively.

WHAT ARE THE WARNING SIGNS OF DIABETES?

The classical symptoms are polydipsia (excessive thirst), polyphagia (excessive appetite), and polyuria (excessive passage of urine). Early in the disease, however, few symptoms show up—perhaps some increase in urinary frequency and thirst. Of the 29 million diabetics in America it is estimated that 8 million don't know that they have it. With another 86 million being in the prediabetic category, more than 115 million Americans are at risk. That's every second adult! As the disease progresses, its effects are devastating, affecting most organs of the body and gradually destroying them. Consider the risks of unrecognized or poorly controlled diabetes:

- Eight out of 10 diabetics develop eye problems. Diabetes is the leading cause of new blindness in developed countries.

- Diabetics are 18 times more likely to experience serious kidney damage than are nondiabetics. Some 25 percent of kidney dialysis patients are diabetics.

- Diabetes is a potent promoter of atherosclerosis (narrowing and hardening of the arteries). The result is that diabetes more than doubles the risk of heart attacks and strokes. It can also lead to sexual impotence, hearing im-



THE EARLIER THAT DIABETES IS DETECTED, THE MORE LIFESTYLE MODIFICATIONS ARE GOING TO BE EFFECTIVE.

pairment, intermittent claudication (disabling leg cramps), and gangrene (half of all foot and leg amputations in adults are from this cause).

WHAT CAUSES TYPE 2 DIABETES?

Studies demonstrate a strong relationship to fat—both fat in the diet and fat on the body. The disease is rare in areas of the world where fat intake and obesity rates are low.

Normally insulin, a pancreatic hormone, enables body cells to use glucose and controls blood sugar levels. But most of the time the problem in

HOW TO BEAT DIABETES (TYPE 2)

Diabetes is a leading cause of new blindness, foot and leg amputations, and hearing impairment. The worst part is that many people suffer needlessly. Here is the formula that can help beat this disease.

1. Eat more natural fiber-rich foods, simply prepared, low in fat, grease, and sugar. Freely use whole-grain products, tubers and legumes, salads and vegetables. Eat a substantial breakfast daily—a hot multigrain cereal will curb your appetite for hours and stabilize your blood sugar.
2. Use fresh whole fruits, but not more than three servings a day.
3. Avoid refined and processed foods. They are usually high in fat and sugar, and low in fiber.
4. Markedly reduce fats, oils, and grease. If you use animal products, use them lean and very sparingly, more like a condiment. And avoid oily and creamy dressings and sauces.
5. Walk briskly *immediately* after each meal to help burn up the extra sugar in your blood.
6. Work with a physician experienced in the effects of dietary therapy to monitor and reduce your insulin and medication need.

type 2 diabetes is not a defective pancreas unable to produce sufficient insulin, but a lack of sensitivity to insulin. This resistance of the cells to insulin appears to relate directly to obesity and to excess fat in the diet and possibly in the liver.

BUT ISN'T SUGAR THE CULPRIT?

James Anderson, MD, professor of medicine and clinical nutrition at the University of Kentucky College of Medicine and a widely respected authority on diabetes, evaluated the effect of diet on blood sugar levels. Just as others had done before him, Dr. Anderson was able to turn lean healthy young men into mild diabetics in less than two weeks by feeding them a rich 65 percent fat diet. A similar group, fed a lean 10 percent fat diet plus one pound of sugar a day, did not produce even one diabetic after 11 weeks when the experiment was terminated.

SO WHAT'S THE BEST WAY TO TREAT THIS DISEASE?

Several treatment centers

have convincingly demonstrated that most type 2 diabetics can normalize their blood sugar levels, often within weeks, by following a simple diet, very low in fat and high in fiber, coupled with daily exercise.

Lowering the amount of fat, oil, and grease in the diet plays the crucial role. When less fat is eaten, less fat reaches the bloodstream and the liver. This begins a complicated process that gradually restores the sensitivity to insulin, which can then facilitate the entry of sugar from the bloodstream into the body cells. The effect is often dramatic. A type 2 diabetic who lowers daily fat intake to about 10 percent of total calories can often normalize blood sugar levels within weeks. Many are eventually able to get off diabetic medication entirely—both pills and injections.

Eating more natural, fiber-rich foods plays an important role by helping stabilize blood sugar levels. When foods are eaten without their normal complement of fiber, blood sugar levels can quickly shoot up. Normally a surge of insulin counteracts this. People who consume refined foods, drinks, and snacks high in calories but low in fiber may experience hikes and dips in blood sugar levels all day long. High-fiber foods, on the other hand, smooth out these blood sugar fluctuations and

stabilize energy levels.

Active physical exercise has an insulin-like reaction in that it burns up the excess fuel (blood sugar and fatty acids) more rapidly.

The foremost recommended lifestyle modification for diabetes, however, is losing excess weight. Obesity is far and away the most common nongenetic component contributing to the development of diabetes.

Normalizing body weight is often all that is necessary to bring the blood sugar back to normal. The low-fat, high-fiber diet will greatly aid this effort, as will a brisk walk *immediately* after each meal.

WHAT ABOUT TYPE 1 DIABETES?

Insulin-dependent, or juvenile, diabetics will need to take insulin for life until pancreatic transplants



STUDIES CONFIRM THAT EVEN A SMALL AMOUNT OF WEIGHT GAIN CAN INCREASE YOUR RISK OF DEVELOPING TYPE 2 DIABETES, ACCORDING TO THE *AMERICAN JOURNAL OF EPIDEMIOLOGY*. A FIVE-POUND GAIN INCREASES YOUR RISK FOR DIABETES BY 10 PERCENT.



ONE IN THREE PEOPLE IN NORTH AMERICA WILL DEVELOP DIABETES AT SOME POINT IN THEIR LIFE. YET THIS DISEASE CAN BE PREVENTED, DISARMED, AND EVEN REVERSED. THE SECRET? LOW FAT, BOTH IN THE DIET AND ON THE BODY.

become feasible and affordable. However, the high-fiber, very low-fat, plant-based, whole-food diet will help reduce the amount of insulin required to maintain stable blood sugar levels and reduce the ever-present threat of vascular complications.

A protein has been identified in

cow's milk that can increase the risk of diabetes in small children. The American Academy of Pediatrics recommends that cow's milk *not* be given to children until at least 1 year of age. Breast-fed infants have a measure of protection against this kind of diabetes.



THE OUTLOOK

The earlier the detection of diabetes, the more likely lifestyle modifications will be effective. Earlier detection thus takes much of the emphasis off drugs and insulin injections, both of which come with undesirable side effects.

Remember: the very lifestyle measures that are disarming and normalizing many cases of type 2 diabetes are preventive as well. Even losing as little as 10 extra pounds and taking a brisk walk *immediately* after each meal can help stave off the disease.

Start now. Beat diabetes before it happens.

APPLICATION

LOW-FAT CHECKLIST

The main villain in type 2 diabetes is the enormous amount of fat in our diet. One way we can reduce this overabundance is by using less fat, oil, and grease during cooking. How many of the following do you do?

- Use nonstick cookware to minimize the amount of oil needed to keep food from sticking.
- Cook onions, green peppers, and other vegetables in broth instead of browning in fat.

- Use less oil, butter, or fat than a recipe calls for, and eliminate the dabs of butter from casserole toppings and vegetables.

- Avoid frying.

- Avoid meats, sausages, and cheese. They are all high-fat foods. And cheese is now the number one source of saturated fat prominently driving the liver to making excessive cholesterol.

- Steam or microwave vegetables instead of sautéing them in butter or oil.

WHAT CAN YOU DO?

What steps can you take to reduce the fat in your diet?

OSTEOPOROSIS

Building Better Bones

Has ordinary, everyday calcium turned out to be the gallant gladiator that can deliver fair maidens from brittle bones, fractured hips, and deformed spines? That is what the calcium manufacturers and the dairy industry would like us to believe. In reality, osteoporosis is far more complicated than that.

WHAT IS OSTEOPOROSIS?

Osteoporosis (literally, *porous bone*) silently and painlessly weakens the bones of 25 million Americans. Previously sturdy bones gradually become thin and fragile, their interiors soft and spongy. As a result, bones break, giving rise to the term *brittle bones*.

Osteoporosis may cause as many as 1.3 million fractures a year. Hip fractures can be both disabling and deadly. Spinal fractures, on the other hand, are often painless, but can rob a person of two to eight inches of height. The resultant spinal curvature is the source of dowager's hump.

HOW DOES OSTEOPOROSIS DEVELOP?

Normal bones continue to increase in strength and thickness until around age 35. Then the process gradually reverses itself, and small amounts of bone are lost each year. This loss accelerates in women after menopause and can



PROTEIN IS AN ESSENTIAL COMPONENT OF A HEALTHY DIET, BUT WE EAT TOO MUCH OF IT, ESPECIALLY ANIMAL PROTEIN, AND THAT CAN BE HARMFUL.



- *cigarettes, caffeine, or alcohol use*
- *standard American diet high in animal protein, salt, and phosphoric acid*

WHAT CAN BE DONE TO TREAT THIS DISEASE?

Several treatments are being used:

- **Estrogen therapy.** When used, it slows down bone loss, but increases the risk for uterine and breast cancer, thrombophlebitis (blood clots), and gallbladder disease. It may also aggravate diabetes and hypertension, and women sometimes face periodic uterine biopsies. Over the years, adding progesterone was designed to blunt some of these disturbing side effects. The results of the recent Women's Health Initiative, however, have raised so much concern about the use of these hormones that many physicians prescribe them now only for special clinical conditions, such as severe hot flashes, and even then, only for a short time.
- **Vitamin D.** The body uses vitamin D to absorb calcium, but most Americans get more than they need if they have sufficient sun exposure: A 15-minute face-to-the sun exposure at midday may give you a jolt of 20,000 IU of vitamin D! The dietary recommendation is 600-800 IU/day.

continue for seven to 15 years. When risk factors are present, bone loss occurs even faster, and osteoporosis may develop.

Although usually considered a disease of older women, 20 percent of victims are men.

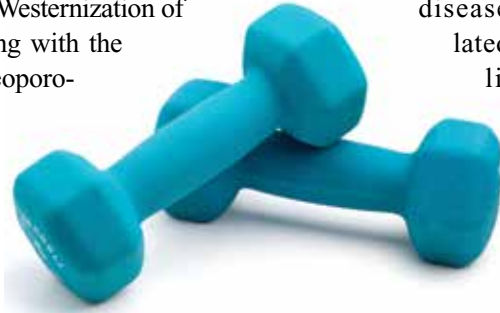
HOW CAN I TELL IF I HAVE IT?

Without professional help, you can't—not until you fracture a bone or start shrinking in height, and that's quite late in the disease. Earlier diagnosis is best done by physicians at reliable medical centers.

If you are middle-aged or older and you have two or more of the following risk factors, you should be tested:

- *sedentary lifestyle*
- *early menopause*
- *chronic use of corticosteroids*

• **Calcium.** Various U.S. governmental agencies have recommended 1,200 to 1,500 mg of calcium a day. However, until recently the World Health Organization (WHO) recommended only 500 mg daily, since calcium deficiency has never been documented anywhere in the world, even with calcium intakes of as little as 300 mg a day. With Westernization of most diets, along with the increase in osteoporosis, the WHO is now recommending 1,000 mg of calcium a day.



• **Exercise.** Bones will not thicken and strengthen without regular, weight-bearing exercise, such as walking. To retain their minerals, bones need to be pressed, pushed, pulled, and twisted against gravity.

The gravity factor was well demonstrated by the early astronauts. Even though they exercised faithfully while in space, their bones showed startling osteoporotic changes on their return. While nearly all types of aerobic exercise are beneficial to the body, what the bones need most is a good daily shake-up.

• **If you smoke, stop!**

It will do your bones a big favor.

• **Reduce the amount of animal protein, salt, and caffeine** in the diet. Osteoporosis appears to be a disease of affluence and excess, rather than one of *deficiency*. Osteoporosis is a rather complex

disease largely related to our dietary lifestyle. The standard American diet, high in animal protein, salt, phospho-

rus (meat, certain soft drinks), and caffeine, is a suspect high on the list of being involved in the loss of calcium from the bones and excreted in the urine. These lifestyle-induced calcium losses seem to override any calcium consumed or swallowed.

WHAT'S THE EVIDENCE FOR THIS CONNECTION?

Inuits consume diets extremely high in both protein (250 to 400 gm/day) and calcium (1,500 to 2,500 mg/day). In spite of their high calcium intake and the very active lives they lead,

they have one of the highest rates of osteoporosis in the world.

The Bantu tribes in Africa, on the other hand, consume an average of 47 gm of protein and less than 400 mg of calcium a day, predominantly from plant foods. Yet even though Bantu women bear an average of 10 children, making special demands on calcium reserves, they are essentially free of osteoporosis. In contrast, relatives of the Bantu who have migrated to the United States and adopted the richer Western dietary lifestyle eventually experience a rate of osteoporosis comparable to that of the rest of the host country's population.

HOW ABOUT PREVENTION?

Most populations around the world average less than 500 mg calcium a day without any evidence of osteoporosis. It's paradoxical that osteoporosis has become epidemic in the United States, where the consumption of calcium-rich dairy

products and calcium supplements is the world's highest.

North Americans eat two to three times more protein than they need. Reducing protein intake to the Recommended Daily Intake (RDI) of 50 gm (for 2,000 calories) a day, along with daily active exercise and a healthful diet low in salt, phosphorus, and caffeine, holds promise of turning the tide in the battle against brittle bones.

APPLICATION

THE CASE OF THE UNSUCCESSFUL SAVERS

Janice and Steve had trouble saving money. Once the bills were paid, nothing ever seemed to be left. After some serious discussion, Janice decided to take a part-time job, and Steve asked his boss for more overtime hours.

What a difference! The next month

OSTEOPOROSIS IS EPIDEMIC IN NORTH AMERICA, EVEN THOUGH THE CONSUMPTION OF CALCIUM-RICH DAIRY PRODUCTS AND SUPPLEMENTS



IS THE HIGHEST IN THE WORLD. BY REDUCING THE INTAKE OF ANIMAL PROTEIN, SALT, AND CAFFEINE AND ADOPTING A PROGRAM OF DAILY EXERCISE, THE TIDE CAN BE TURNED IN THE BATTLE AGAINST THIS CRIPPLING DISEASE.

their paychecks were larger than ever before. But once again, no money was left once the bills had been paid. Janice and Steve had increased their spending to match their new income.

SPENDING CALCIUM

Something similar seems to happen where high intakes of animal protein and salt may cause calcium loss. The body “spends” calcium as it processes animal protein, salt, and caffeine. When there is not enough calcium available in the diet, it “borrows” from another source—the bones.

The Western diet provides two to three times the recommended daily allowance of protein. At the same time, it provides 10 times more salt than the body requires. At this level it is almost impossible to get enough calcium to balance the losses. Slowly over the years the bones become brittle and weak.

The solution is not to take more calcium, but to eat less protein, salt, and caffeine. This allows the body to conserve the calcium already stored in the bones.

HIGH-CALCIUM, HIGH-PROTEIN FOODS

Cheddar cheese and whole milk

are good sources of calcium. But they are also relatively high in protein, forcing the body to deal with the excess animal protein.

HIGH-CALCIUM, LOW-PROTEIN FOODS

Collard greens, spinach, and broccoli are also good sources of calcium, and none of them contains animal protein. Another bonus is that they are all very low in fat and are cholesterol-free and high in nutritional density.

SAVE MORE THAN YOU SPEND

Everyone knows that you can’t save money when you spend more than you make. The same principle applies to calcium: You can’t keep bones strong if you’re “flushing” the calcium out of them with a diet high in animal protein, salt, and phosphorus.

HOW TOUGH ARE YOUR BONES?

Try to cut down on calcium-robbing, high-protein meats and dairy products. Instead, look to lower protein sources of calcium found in whole grains, dark-green leafy vegetables, and beans. And get into a consistent exercise program.

ARTHRITIS

Disease With a Thousand “Cures”

Because arthritis is a chronic disease that never quite seems to go away, even with good medical treatment, hundreds of folk remedies have grown up around it. And there are hundreds more unproven, expensive, and often outright quack treatments being offered today to vulnerable arthritis sufferers by unscrupulous promoters.

HOW WOULD YOU DEFINE ARTHRITIS?

Arthritis is a general term for diseases or other abnormal processes occurring in the joints.

An estimated 52 million Americans suffer from some form of arthritis.

Our joints and ligaments, like our muscles, wear with use and need to be constantly repaired—a process

that normally occurs during sleep. Repair of any body part requires free access to oxygen and other nutrients. When circulation of the blood becomes inadequate, ligaments weaken, joint fluids decrease, and cartilage wears away.

WHAT IS THE MOST COMMON FORM OF ARTHRITIS?

Osteoarthritis is the most common type, and in some degree is almost universally present in our older populations. It can also occur at any time after an injury or excessive wear and tear to a joint, as often happens in football. Arthritis resulting from injuries is also known as *traumatic arthritis*.

Osteoarthritis usually occurs when a joint's blood supply becomes inadequate for its needed function. Just as a heart will weaken and ultimately fail when the coronary arteries clog up with plaque, so joints begin to break down when the arteries supplying them become narrowed or obstructed. For this reason most osteoarthritis responds to measures that improve circulation, such as lowering the amount of fat in the bloodstream, regular exercise, and hydrotherapy (water treatments).



HOW DOES A JOINT TELL YOU IT IS NOT GETTING ENOUGH BLOOD?

IT USUALLY BEGINS TO HURT.



**THE SURPRISING
ANSWER TO
ARTHRITIS PAIN:
EXERCISE!**

**SINCE CARTILAGE (THE PAD
BETWEEN THE BONES) DOESN'T
HAVE A BLOOD SUPPLY, IT HAS
TO GET ITS NUTRIENTS FROM THE
JOINT LINING, WHICH OCCURS
ONLY WHEN THE JOINT IS USED.**

Osteoarthritis of weight-bearing joints, such as the spine, knees, and hips, is commonly aggravated by caloric overload (obesity). Just as a bridge has a load limit, so do the joints.

The most common symptoms of osteoarthritis are pain and stiffness, which tend to decrease as the joint is warmed up with activity.

ARE BACKACHES CAUSED BY ARTHRITIS?

Backaches afflict more than 5 million Americans every year—four out of five people will suffer from them at some time in their lives. Back problems are important because they are a leading cause of disability, missed workdays, and many lawsuits.

Surprisingly, up to 80 percent of

low back sufferers are victims of overworked or underexercised muscles. A strained muscle may suddenly go into a sustained contraction or spasm and become a hard knotty mass, signaling body distress by sharp pain.

Another 10 percent of back problems may be caused by osteoarthritis or a disk problem. Only a very few who suffer from back pain have a specific serious injury.

When a backache occurs, it's important to rule out an identifiable injury before anything else is done. Without an evident serious problem, the important thing is not to do what you feel like—retiring to a soft sofa. One day of rest after injury or onset of pain—two at the most. Ice bags are helpful at this stage, along with doctor-prescribed muscle relaxants and nonsteroidal anti-inflammatory medications.

Then it's time to get up on your feet and start walking. Walk through the pain. Back specialists say that prolonged bed rest will do more harm than good, because rest causes your back muscles to weaken rapidly. Instead of becoming reconditioned, you become deconditioned. After a while even light activity may sprain or strain muscles barely able to carry their own weight.

Fortunately most back problems

resolve themselves in four to 12 weeks. Here are a few tips to prevent recurrence, or to prevent backaches entirely.

- Keep your weight down—the biggest favor you can do for your back.
- Avoid high heels (more than one inch). They tilt the pelvis and throw the back out of alignment.
- Strengthen your back and abdominal muscles with special exercises. Walk, swim, or jog at least 20 minutes five times a week.
- Eat a diet very low in fat and high in fiber to improve your circulation, better allowing the blood to carry extra oxygen and nutrients to the compromised areas.

These measures are important for all kinds of arthritis as well as for back pain.

WHAT ABOUT THE PAINFUL, SWOLLEN BIG TOE?

You mean gout, or *gouty arthritis*. From antiquity this disease has been associated with the lifestyle of the rich: too much rich food and too little activity. You can still see pictures in old history books of such kings, with a foot propped up on a footstool, protecting that painful big toe.

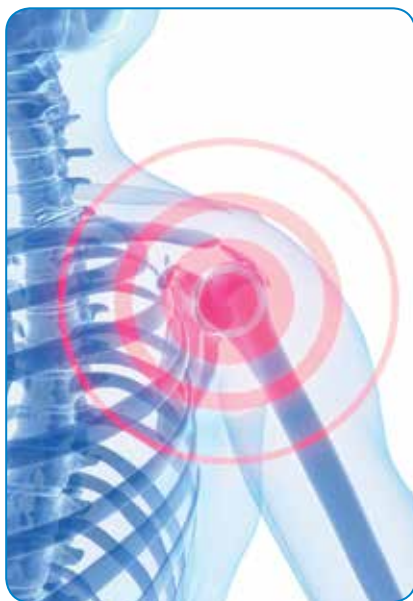
Sometimes the afflicted royal person

was sent to live and work with the peasants. This was effective, because a simplified diet and a more active life eventually reversed the disease.

We now know that some metabolic weakness may be involved in gout. But we also know that it can be controlled by simplifying the diet and by eliminating the offending purines (largely from the breakdown of animal protein) and normalizing weight.

WHAT ABOUT RED SWOLLEN JOINTS?

You are probably thinking of *rheumatoid arthritis*. This is different from osteoarthritis in that it results from inflammation of the joints with redness,



swelling, pain, and fever, rather than from injury or wear and tear.

Rheumatoid arthritis is an autoimmune disease, and is related to asthma, hay fever, eczema, and other diseases that have an allergic component. Acute attacks tend to recur over the years, producing nodules and gradually stiffening and disfiguring the joints, most notably the wrist and finger joints.

Rheumatoid arthritis has long been known to be closely intertwined with the body's immune (defense) system. Certain immune protein complexes deposited in the joints play a key role in the marked destruction of cartilage that takes

place. We now know that these protein antigens (perpetuators of allergies) can be absorbed intact from the small intestine without being digested, thus causing the problems.

Dietary habits are believed important because studies of rural populations in undeveloped countries show a fraction of the incidence of rheumatoid arthritis that is found among their urban counterparts. Other studies have demonstrated that when eating foods associated with few allergic symptoms, patients experience less stiffness and pain, and improvement in muscle strength. In addition, any lifestyle measures designed to improve circulation are important as well.



The best long-term results are seen in patients willing to adopt a very strict diet that excludes all animal products, including dairy. This is not surprising, since milk is the most common cause of food allergies, with eggs close behind. Studies have shown, for example, that more than 100 antigens (perpetrators of allergies) may be released during the digestion of cow's milk alone.

Fight for your health. Stay active. The people who get better are the ones who take an active role in bringing about positive and permanent changes in their lifestyles.

Can you summarize some practical guidelines for preventing or reversing the effects of chronic arthritis?

APPLICATION

Despite the many different forms of arthritis, here are some general principles that are effective in most cases:

1. Normalizing weight is perhaps the most important. Every extra pound increases the wear and tear of the main weight-bearing joints—the hips, knees, and spine.
2. A simplified diet, low in fat and high in fiber, has been shown to improve circulation to the joints. In time, this kind of diet may help open up some of the narrowed arteries. Eliminate all dairy products for three weeks and evaluate your response.
3. Engage in regular, active exercise at least five days a week, to keep muscles strong. Weakened muscles do not adequately protect the joints. When joints are painful, swimming and water aerobics are ideal.
4. Use affected joints only within the limits of their blood supply. Resting during acute episodes, then quickly returning to activity, is very important in preventing chronic disability.
5. Medications such as analgesics, muscle relaxants, and nonsteroidal anti-inflammatory drugs may help, especially in the acute phase. Steroid therapy can produce dramatic improvement, but in the long run it usually does more harm than good.
6. If joint destruction is advanced, the joint may need to be fused or replaced with an artificial joint. Also there are surgical procedures available to correct deformities and to repair injuries.

OBESITY

Creeping Fat

Americans are among the fattest people on earth. Obesity is one of our leading public health problems.

- Two out of three American adults are either overweight or obese.* So serious is this disease that 51 million people are at significant medical risk.

THAT'S FRIGHTENING. NO WONDER WEIGHT-LOSS DIETS ARE SO POPULAR!

Yes, and far too many people fall prey to fads and eating plans that offer quick results. Like a conditioned reflex, extra pounds spell d-i-e-t to most people. A recent survey found that 40 to 50 percent of Americans between the ages of 35 and 59 were on some kind of diet at any given time.

The sad truth is that unless people make lasting changes in their lifestyles and consistently choose healthful foods on a regular basis, their efforts are largely wasted. Up to 90 percent of dieters regain their lost weight within a year, usually with a bonus. Constantly losing and regaining weight

is frustrating and demoralizing, and does more damage than good.

WOULD IT BE BETTER JUST TO STAY FAT?

For many people, remaining overweight would be less harmful than endlessly playing the rhythm game of girth control. Before running up the white flag of surrender, however, take a careful look at the health risks of being overweight.*

When compared with people of normal weight, very obese people (BMI > 40) are:

- 5 times more likely to suffer from heart disease;
- 6 times more likely to suffer from high blood pressure and also from sleep apnea;
- 7 times more likely to develop diabetes and elevated blood cholesterol;
- and at higher risk of developing cancer of the colon, prostate, breast, cervix, and ovaries, and to suffer osteoarthritis, low back pain, and depression.

* **Obesity**, by definition, is being 20 percent or more above ideal weight. Being 10-19 percent above ideal weight is usually termed **overweight**.



EXCESS WEIGHT LAYS THE FOUNDATION FOR NEARLY EVERY DEGENERATIVE DISEASE EXCEPT OSTEOPOROSIS.

Overweight people are like ticking bombs waiting for one or more of these diseases to explode in their lives. In addition, extra weight affects self-image. In today's appearance-oriented society it can be a great psychological burden.

WHAT CAUSES OBESITY?

The key to the problem is calories—too many of them. Overweight

happens when you eat more calories than your body can use. Whether calories come from fat, protein, sugar, or starch, the leftovers are turned into fat. Some of this fat floats around in the blood, plastering and gradually plugging vital oxygen-carrying arteries.

The rest of the leftover fat ends up in the body's central fat bank, located

IDEAL WEIGHTS FOR ADULTS BY BODY FRAME

METROPOLITAN LIFE INSURANCE HEIGHT/WEIGHT TABLE (1959) (WEIGHT IN LBS.)†*

MEN				WOMEN			
HEIGHT (NO SHOES)	SMALL FRAME	MEDIUM FRAME	LARGE FRAME	HEIGHT (NO SHOES)	SMALL FRAME	MEDIUM FRAME	LARGE FRAME
5'2"	115-123	121-133	129-144	4'10"	96-104	101-113	109-125
4"	121-129	127-139	135-152	5'0"	102-110	107-119	115-131
6"	128-137	134-147	142-161	2"	108-116	113-126	121-138
8"	136-145	142-156	151-170	4"	114-123	120-135	129-146
10"	144-154	150-165	159-179	6"	122-131	128-143	137-154
6'0"	152-162	158-175	168-189	8"	130-140	136-151	145-163
2"	160-171	167-185	178-199	10"	138-148	144-159	153-173
4"	168-179	177-195	187-209	6'0"	148-158	154-169	163-183

* Many established researchers consider the 1959 table of the Metropolitan Life Insurance Company more consistent with good health than revised tables with higher values.

† Includes one pound for ordinary indoor clothing.

EXTRA WEIGHT SHORTENS LIFE! EVERY EXTRA POUND SHAVES ABOUT ONE MONTH FROM YOUR LIFE SPAN. SIXTY EXTRA POUNDS, IN OTHER WORDS, CAN COST YOU FIVE YEARS!

10 BASIC HABITS TO FORM

1. Eat lots of foods “as grown” (see p. 66). These are the *un-refined* complex carbohydrate foods, high in fiber and nutrients, yet low in calories and price, and devoid of cholesterol.
2. Never skip breakfast. A hot cereal with fruit is great!
3. Eat three meals a day at regular times.
4. Eat slowly. Take time to enjoy your food.
5. End your main meal with a piece of fruit. Save desserts for special treats.
6. Skip snacks and night munchies (or eat a piece of fruit or some raw veggies).
7. Drink water instead of juice or sodas.
8. Exercise daily 30 to 60 minutes, or 10,000 steps.
9. Allow no harmful substances into your body (alcohol, tobacco, caffeine, drugs, etc.).
10. Develop hobbies — music, books, sports, etc.

around the midsection. Embarrassing branch offices often pop up in other parts of the body. For every 3,500 excess calories received by the body, one pound of fat is placed on deposit.

WOULD LOSING JUST A FEW POUNDS DO ANY GOOD?

The answer is yes. Excess fat relates so directly to health that a little bit goes a long way. A 10 percent weight reduction in men 35 to 55 years of age will result in a 20 percent decrease in coronary heart disease. On the other hand, a 10 percent increase in weight produces a 30 percent increase in coronary disease. This is just one example of many such relationships. Every pound counts, one way or the other.

WHAT ARE SOME POSITIVE WAYS TO DEAL WITH OBESITY?

The strategy for successful weight control is threefold:

- Eat more plant-based, whole food simply prepared, without all the sugar, grease, and salt.
- Increase the rate at which calories are burned by increasing physical activity and muscle size.
- Make the above two lifestyle practices a permanent part of life.



THE SECRET OF LASTING WEIGHT LOSS BEGINS WITH EATING GENEROUS AMOUNTS OF HIGH-FIBER FOODS WHILE LIMITING ANIMAL PRODUCTS AND REFINED FOODS. COMBINE THIS WITH A BRISK DAILY WALK, AND YOU WILL EASILY DROP THOSE EXTRA POUNDS AT A HEALTHY RATE OF ONE TO TWO POUNDS A WEEK.

Begin by eating generous amounts of high-fiber foods such as whole grains, vegetables, fruits, potatoes, yams, and beans. Omit as much fat and sugar from the diet as possible. Cut back on refined and processed foods and snacks. These engineered taste sensations are stuffed with calories and depleted of nutrients.

If you insist on eating animal products, such as meat, eggs, ice cream, and cheese, then use them very sparingly, more like a condiment. They have no fiber and are loaded with saturated fat. You really don't need them at all!

This kind of eating plan, plus a brisk daily walk, will help you lose one to two pounds a week.

You can fight creeping fat, push up your energy level, improve your

digestion, and feel good every day. Beginning right now!

APPLICATION

DIFFERENT PROBLEM, SAME CURE

Over and over you've heard the same advice: Change your lifestyle to prevent heart disease, stroke, hypertension, diabetes, and a host of other life-shortening diseases.

Why do all these problems have the same solution? Because a diet of whole foods, very low in fat, sugar, salt, and cholesterol, is not a gimmick or fad—it's the diet your body was designed for.

It should come as no surprise, then, that the same diet that keeps your arteries clean and reduces the risk of cancer also helps you lose weight—and keep it off for good.

FATS MAKE FAT

Ounce per ounce, the American diet

CALORIES PER GRAM

FAT	9
ALCOHOL	7
PROTEIN	4
SUGAR	4
STARCH	4



EAT MORE, WEIGH LESS

If you picked Yummies, you were correct. Although the weight was the same for all three, Yummies carry a higher proportion of that weight as fat. As a result, a serving of Yummies contains 91 calories as fat while Vegi-o's carry 81 and Salties only 66 calories.

Keep this in mind when you choose your food. You don't have to eat less to cut calories. In fact, if you choose foods that are high in *unrefined* complex carbohydrates and low in fat, you can actually eat more than ever and still lose weight. That's good news if you're one of the many who think going hungry is the only way to get thin. Actually, to get thin, you have to eat more, but of the right foods.

packs a lot of calories. That's because it's high in fat. Look at the comparison: a gram of fat contains more than twice the calories of an equal amount of protein or carbohydrate (p. 53).

COUNT THOSE CALORIES

Which of the following contains the most calories: Salties, Vegi-o's, or Yummies? Compute and figure out the total calories per food:

	SALTIES	VEGI-O'S	YUMMIES
CARBOHYDRATE	8 GM	4 GM	2 GM
PROTEIN	4 GM	5 GM	5 GM
FAT	2 GM	5 GM	7 GM
	14 GM	14 GM	14 GM
CALORIES:	==	==	==

YOUR CHALLENGE:

When you shop, check the labels to see how much fat, carbohydrate, and protein the foods you buy contain. Choose those that are high in unrefined complex carbohydrates and low in calorie-dense fats. If you eat lots of products that carry most of their weight as fat, soon you will be doing the same.

ALCOHOL

The Cooler Delusion

They look like soft drinks, taste like soft drinks, and are sold like soft drinks. But there the similarity stops. These drinks contain more alcohol than a beer or a glass of wine, and they carry more calories.

ARE YOU TALKING ABOUT FLAVORED COOLERS? THEY LOOK SO ATTRACTIVE, SO HEALTHY!

That's the strategy. These coolers come in lots of colors that people associate with fruit juices. In fact, the containers and carrying packs are often plastered with pictures of fresh fruit even though some contain no fruit or fruit juice at all.

What's more, coolers taste sweet and fizzy, like soft drinks. The alcohol taste is disguised, making them attractive to people who do not ordinarily drink alcohol. Then, too, coolers are packaged, not like other types of alcoholic beverages, but like soft drinks.

DO COOLERS CARRY LESS RISK THAN OTHER ALCOHOLIC BEVERAGES?

The worst part of the cooler caper is the illusion that coolers are low

in alcohol. They're not. Coolers average 6 percent alcohol by volume, whereas beer averages 4 percent.

And because coolers usually come in 12-ounce bottles, the amount of alcohol in a serving can exceed that of a gin and tonic (with one ounce of liquor) or a glass of wine served at dinner.

ALCOHOL IS LINKED WITH VIRTUALLY EVERY NEGATIVE ASPECT OF SOCIETY:



SUICIDE, VIOLENT CRIME, BIRTH DEFECTS, INDUSTRIAL ACCIDENTS, DOMESTIC AND SEXUAL ABUSE, DISEASE, HOMELESSNESS, AND DEATH. IT IS THE NUMBER ONE DRUG PROBLEM FOR PEOPLE FROM ALL WALKS OF LIFE. IT KNOWS NO RACIAL, ETHNIC, SOCIAL, OR ECONOMIC BARRIERS.

—NATIONAL COUNCIL ON ALCOHOL

HOW ARE COOLERS AFFECTING TODAY'S YOUNG PEOPLE?

Teens, especially teenage girls, are attracted to coolers. They like the name; it suggests a light, refreshing

high school students, have tried wine coolers. Of all 12- through 17-year-olds, 37 percent currently use alcohol. And 5 million American teens already have serious problems stem-



drink. And they like the taste. “Coolers are a hazard for kids because they’re so easy to drink,” says Diane Purcell of Chicago’s Parkside Medical Services. “You can go from lemonade to a lemon cooler in one easy step. You don’t have to acquire a taste for alcohol.”

HOW SERIOUS IS ALCOHOL USE AMONG TEENS?

A recent survey revealed that at least 40 percent of sixth graders, and up to 80 percent of junior and senior

ming from alcohol use. For them, alcohol is the drug most frequently used.

ARE THESE KIDS IN DANGER OF BECOMING ADULT ALCOHOLICS?

Many kids are already alcoholics by the time they reach adulthood. Others are well on their way.

When it comes to alcohol, people carry their habits into adult life. And there are already 15 million adult alcoholics and 8 million more

who have drinking-related problems. Half of all fatal auto accidents involve alcohol, as do a growing number of air fatalities. Unless we can help our teenagers, things aren't going to get better.

Alcohol exacts a heavy price from personal health. Alcohol promotes high blood pressure and is directly toxic to heart muscle. Alcohol increases the risk of stroke, sudden death from heart arrhythmias and diseased heart muscle, congestive heart failure, cirrhosis, and cancer. Alcohol also increases morbidity and hospitalization and reduces the drinker's years of useful life. And it ravages the lives of family and friends.

Perhaps the saddest statistics to emerge in recent years are those of damaged babies permanently mentally deficient as a result of their parents' alcohol use.

HOW CAN WE BEST PROTECT OUR YOUNG PEOPLE?

The challenge to stay drug-and-alcohol-free is greater now than ever for America's teenagers. It is during their early teen years that most will face the critical decision of how they will personally respond to these issues. Each day billboards, magazines, and television, as well as many movies, tell our kids that drinking

alcohol is synonymous with being accepted and having a good time. And peer pressure is enormous.

Yet today's youth can be very discerning. Most hold strong ideals about what is right and fair, yet they need guidance in making right choices.

- Their immediate need is for education—an honest, reliable, credible source of information. To be



- **TWO OF EVERY THREE ADULTS DRINK.**

- **ALCOHOL IS A FACTOR IN NEARLY HALF OF AMERICA'S MURDERS, SUICIDES, AND ACCIDENTAL DEATHS.**

- **THE ECONOMIC COSTS TO SOCIETY OF ALCOHOLISM AND ALCOHOL ABUSE ARE ESTIMATED AT CLOSE TO \$250 BILLION A YEAR—INCLUDING \$35 BILLION FOR TREATMENTS.**

- **THE ANNUAL COST OF ALCOHOL USE BY UNDER-AGE YOUTH IS MORE THAN \$50 BILLION.**

effective, this education must start early, during the elementary years.

- Youth need support and encouragement—from grandparents, teachers, churches, mentors, and positive role models. This support must include the availability of positive activities to fill

their free time, such as part-time jobs, sports, hobbies, crafts, library use, clubs such as Boy Scouts and Girl Scouts, and opportunities to work as community service volunteers.

- But most important of all is a good parental example. Nothing is more

HOW ALCOHOL AFFECTS YOUR BODY

Your Brain—Alcohol, even in small amounts, causes irreparable damage to brain cells; some die, and others are altered.

Your Heart—Alcohol increases the risk of hypertension, stroke, and damage to the heart muscle.

Your Lungs—Alcohol depresses respiratory functions.

Your Reproductive System—In men, alcohol can damage cells in the testes, causing impotence, sterility, and possibly enlarged breasts. In women, alcohol can cause irregular menstrual cycles and malfunctioning of the ovaries. Alcohol has also been linked to birth defects in infants and to fetal alcohol syndrome.

Your Liver—Because your liver must filter alcohol from the blood, alcohol affects it more than any other organ of your body:

- Excess calories in alcohol are stored as fat in the liver.
- Functioning liver cells die from alcoholic poisoning.
- Scar tissue replaces dead cells, causing cirrhosis.

Your Immune System—Alcohol weakens the body's defense against infection and breast cancer.





ALCOHOL EXTRACTS A HEAVY PRICE FROM PERSONAL HEALTH. THIS GOES FOR TEENS AS WELL AS ADULTS. YOUNG PEOPLE WHO GROW UP IN NONALCOHOLIC HOMES ARE LESS LIKELY TO HAVE PROBLEMS WITH ALCOHOL AFTER REACHING ADULTHOOD. A PARENT'S EXAMPLE CAN MAKE A BIG DIFFERENCE.

powerful than this! And the statistics show it. Young people who grow up in nonalcoholic homes are much less inclined to have problems when they reach adulthood.

The wise man summed it up long ago:

“Wine is a mocker, strong drink is raging: and whoever is deceived thereby is not wise” (Proverbs 20:1).

APPLICATION

THE WORLD'S MOST ABUSED DRUG

Alcohol is not just a problem for young people; it's the greatest drug problem in the world for all ages. In the United States it's second only to tobacco on the list of “most deadly drugs.”

Despite the dangers, everyone in our society comes into contact with alcoholic beverages. If nothing else, we are exposed to commercials on television singing the praises of one brew after another.

ALCOHOL AND NUTRITION

Throughout this book we have urged you to avoid highly refined products that are high in calories but low in nutrition. Alcohol certainly falls into this category. Two cans of beer, for example, carry 300 calories; two jiggers of 100 proof whiskey, 250 calories; two glasses of dessert wine pack 280 calories—and they are all empty calories, providing none of the nutrients your body requires.

For men, alcohol accounts for 4 percent of the calories in the American diet contributing to being overfed and undernourished.

YOUR CHALLENGE

Make this “ban the booze” week at your house. You should be able to get through it without any sort of urge or discomfort.

If you can't, you need to seriously consider who is the master: you or the alcohol. If you can get through the week with no problems, why not

quit altogether? It will help keep your weight under control, improve your nutrition, and set a good example for the young people in your life.

ALCOHOL AND YOUNG PEOPLE

Young people ages 14 to 24 account for more than 8,000 alcohol-related

fatalities—about a third of the annual total.

THOSE LOST YEARS

When you're a teenager, it's hard to think of time ever being short; it's hard to realize what a precious commodity time is.



A RECENT SURVEY REVEALED THAT AT LEAST 40 PERCENT OF SIXTH GRADERS, AND UP TO 80 PERCENT OF JUNIOR AND SENIOR HIGH SCHOOL STUDENTS, HAVE TRIED WINE COOLERS. OF ALL 12-THROUGH 17-YEAR-OLDS, 37 PERCENT CURRENTLY USE ALCOHOL.

TOBACCO AND DISEASE

The Deadliest Drug

Smoking is not only hazardous to your health—it can be hazardous to your job prospects as well. Twice as many smokers are out of work as nonsmokers. Though few will admit it, most employers would reject a smoker competing for a job with an equally qualified nonsmoker.

DON'T YOU THINK THE RISKS OF SMOKING ARE BEING EXAGGERATED?

No way! For example, smokers at Dow Chemical, when compared to nonsmokers, had six days more absenteeism, eight days more disability, and 12 percent more illness, costing the company \$8,945 more per smoker per year.

The hard facts consistently point to tobacco as the deadliest drug in the world. Last year, tobacco use was responsible for nearly one in five deaths.

This equals 480,000 (see p. 29) early deaths each year—that's more than all who died from AIDS, street drugs, fires, car crashes, and homicides combined. It also killed more than 4,000 involuntary smokers—persons forced to breathe secondhand smoke.

HOW DOES SMOKING CAUSE LUNG CANCER?

Normally your lungs' air passages are lined with millions of tiny hairs called cilia. The cilia act



like little brooms protecting the air tubes by sweeping dusts, tar, and other foreign materials gradually upward, like escalators, until they can be spit out.

Every time a blast of tobacco smoke hits these cilia, however, they slow down, and soon stop moving. As a result, the trapped tars from the tobacco

“SMOKING REMAINS THE SINGLE MOST PREVENTABLE CAUSE OF DEATH IN OUR SOCIETY.”

—U.S. Surgeon General

smoke begin boring into the cells lining the air tubes. Over time, this constant irritation turns some of the cells cancerous.

This transformation takes many years. But once it begins, the cancer steadily eats its way deeper into the lung. By the time it is discovered, it's usually too late.

IS LUNG CANCER THE LEADING CAUSE OF DEATH IN SMOKERS?

No. Smoking is also responsible for 155,000 fatal heart attacks and strokes, followed by 128,000 lung cancer deaths per year in the United States.

The nicotine and carbon monoxide in tobacco smoke are the main culprits that promote vascular disease. Nicotine constricts small arteries, depriving the heart, brain, lungs, and other important areas of vital oxygen. Nicotine also produces a sense of relaxation and well-being—smoking's main appeal. But nicotine is also addictive.

Carbon monoxide interferes directly with the ability of red blood cells to carry oxygen. This causes shortness of breath, lack of endurance, and

acceleration of atherosclerosis (narrowing and hardening of the arteries).

THAT'S A LOT OF BAD NEWS. IS THERE MORE?

Unfortunately there is a lot more.

- Smokers have much more cancer of the mouth, larynx, esophagus, pancreas, bladder, kidneys, and cervix than do nonsmokers.
- Emphysema gradually destroys lung tissue, producing death by suffocation. In the United States 111,000 of these grisly deaths occur each year as a result of smoking.
- Ulcers of the stomach and duodenum are 60 percent more common in smokers.
- Smoking pulls calcium out of the skeleton, accelerating the bone-thinning process known as osteoporosis.
- Smoking during pregnancy has an adverse effect on fetal development and increases the risk of death after birth up to 35 percent.

“TOBACCO KILLS ONE IN TWO SMOKERS.”

IF A PERSON HAS SMOKED HEAVILY FOR A LONG TIME, DOES IT PAY TO QUIT?

About 80 percent of lung cancers and almost half of the bladder cancers could be prevented if people simply stopped smoking.

Smokers who quit begin to heal almost immediately. As the nicotine and carbon monoxide leave the body, the smoking-related risk for heart disease decreases dramatically. Although the

risk for cancer decreases more slowly, the danger lessens as the weeks and months go by.

There are other payoffs to quitting: a sense of victory, increased self-esteem, pleasant breath, better-tasting food, increased endurance, improved health and energy, a feeling of well-being, and freedom from an inconvenient, unpopular, costly habit. Quitting may also open the way to more job opportunities.

Did You Know . . .

THAT SMOKING KILLS 1,214 AMERICANS A DAY AND COSTS MORE THAN \$300 BILLION A YEAR IN EXTRA HEALTH-CARE, INSURANCE COSTS, AND LOST PRODUCTIVITY? FOR EACH OF THE PACKS OF CIGARETTES SOLD IN THE U.S., \$3.49 WAS SPENT ON MEDICAL CARE ATTRIBUTABLE TO SMOKING AND \$3.78 FOR PRODUCTIVITY LOSS FOR A TOTAL COST OF \$7.22 PER PACK.

How Smoking Kills

TOBACCO USE KILLS AND MAIMS PRIMARILY BY PROMOTING VASCULAR DISEASES AND VARIOUS CANCERS.

Vascular diseases

- **HEART ATTACKS**—SMOKING IS RESPONSIBLE FOR **23 PERCENT** OF THE ANNUAL **550,000 U.S. CORONARY DEATHS.**
- **STROKE**—RESPONSIBLE FOR **22 PERCENT** OF THE ANNUAL **128,000 STROKE DEATHS.**
- **PERIPHERAL VASCULAR DISEASE**—ABOUT **90 PERCENT** OF LEG AND THIGH BLOCKAGES OCCUR IN SMOKERS.

Cancers

- **LUNG**—**80 PERCENT** BECAUSE OF SMOKING.
- **BLADDER AND KIDNEY**—**3 TIMES** MORE FREQUENT IN SMOKERS.
- **MOUTH, LARYNX, ESOPHAGUS**—**2-25 TIMES** MORE PREVALENT IN SMOKERS.



TOBACCO IS THE DEADLIEST DRUG IN THE WORLD. IN THE UNITED STATES ALONE IT KILLS NEARLY 450,000 PEOPLE A YEAR. THE BIGGEST FAVOR PEOPLE CAN DO FOR THEMSELVES IS TO BREAK THE SMOKING HABIT.

Americans often overreact to the most trivial of risks while ignoring much more substantial threats to their health and safety. For example, every second smoker will die from some disease directly connected to the habit. Smokers will also lose an average of 10 years from their normal life expectancy, or 13 minutes for every cigarette smoked. Yet many people react more forcefully to evidence of a one-in-a-million risk of getting cancer from chemicals found in drinking water!

It's time to get life back into perspective. The biggest favor you can do for your body is to kick the habit and freely breathe clean air again.

You can do it!

APPLICATION

KICKING THE HABIT

The first step in breaking any habit is to decide that you are going to change. It's not enough just to want to change or to imagine that you will change someday. Breaking an addiction to tobacco requires positive commitment.

REASONS TO QUIT SMOKING

Here are a few reasons that have

convinced thousands to quit last year:

1. Quitting is the single most important thing you can do for your health and longevity.
2. Reduced risk of heart disease, stroke, and cancer of the lungs, mouth, throat, pancreas, bladder, kidneys, and cervix.
3. Reduced risk of emphysema and osteoporosis.
4. Elimination of the risk posed to the smoker's family from secondhand smoke.
5. Less chance of a smoker's children and grandchildren smoking.
6. Better breath, whiter teeth, and fewer wrinkles.
7. Less time spent sick: more physical endurance.
8. Lower medical and insurance costs.

The list goes on, and it grows every year as we learn more about the harmful effects of tobacco.

You have everything to gain by kicking the habit—longer life, better health, more vitality, fewer medical expenses . . .

. . . and the air is fresher, food tastes better, wallets are fatter, age is longer, life is sweeter!



Coda

- ① Eat for Health!
- ② Transitioning to Good Eating
- ③ Live for Health!
- ④ Summary
- ⑤ Index
- ⑥ Educational Resources





Basic Guidelines for a Lifetime of Good Eating

Eat Less:

Visible fats and oils

Avoid fatty meats, cooking and salad oils, sauces, margarines, butter, dressings, and shortening. Use spreads and nuts sparingly. Avoid frying; sauté instead with a little water in nonstick pans.

Sugars

Limit sugar, honey, molasses, syrups, pies, cakes, pastries, candy, cookies, soft drinks, and sugar-rich desserts, such as pudding and ice cream. Save these foods for special occasions.

Foods containing cholesterol

Avoid meat, sausages, egg yolks, and liver. Limit dairy products, if used, to low-fat cheeses and nonfat milk products. If you insist on eating fish and poultry, use them sparingly.

Salt

Use minimal salt during cooking. Banish the salt-shaker. Strictly limit highly salted products, such as pickles, crackers, soy sauce, salted popcorn, and nuts, chips, pretzels, garlic salt, commercial soups.

Alcohol

Avoid alcohol and caffeinated beverages, such as coffee, colas, and black tea.

COMPARISON OF DIETS (per day)

	Western Diet	The Optimal Diet
Fats and Oils	80-120 gm	40 gm or less
Sugar	35 tsp	10 tsp or less
Cholesterol	400 mg	50 mg or less
Salt	10 gm	4 gm or less
Fiber	10 gm	30 gm <i>plus</i>
Water (fluids)	minimal	8 glasses <i>plus</i>

“We cannot safely be guided by the customs of society. The disease and suffering that everywhere prevail are largely due to popular errors in regard to health.”

—E. G. White, *The Ministry of Healing*

Eat More:

Whole grains

Freely use brown rice, millet, barley, corn, wheat, and rye. Also eat freely of whole-grain products, such as breads, tortillas.

Tubers and legumes

Freely use potatoes, yams and sweet potatoes (without high-fat toppings). Enjoy plenty of peas, lentils, chickpeas, and beans of every kind.

Fruits and vegetables

Eat several fresh, whole fruits every day. Limit fruits canned in syrup and fiber-poor fruit juices. Eat a variety of vegetables daily. Enjoy fresh salads with low-calorie, low-salt dressings.

Water

Drink at least eight glasses of water a day. Vary the routine with a twist of lemon and occasional herb teas.

Hearty breakfasts

Enjoy hot multigrain cereals, fresh fruit, and whole-wheat toast. Jump-start your day.



The Eating Continuum

Worst Health Outcomes

Best Health Outcomes



The evidence is clear: the further we move toward the right-hand side, the more disease prevention, arrest and reversal, and the more resilient health and greater longevity we can expect. For better health, longer life, for greater compassion and for leaving a softer footprint on the earth, let us move progressively toward the right-hand side of the upper green triangle ([see page 4 for more details](#)).



Basic Guidelines for a Lifetime of Healthful Living

A checklist for making your new start:

Nutrition

- Nourish your body with healthful, full-fiber, nutrient-rich foods. Stay away from processed, engineered foods.
- Increasingly move toward a totally plant-based lifestyle.
- Enhance digestion by breaking the snack habit.
- Schedule regular mealtimes, four to five hours apart.
- Eat larger breakfasts and smaller evening meals.

Exercise

- Strengthen your body and increase your enjoyment of life with daily active exercise, outdoors if possible.
- Aim for at least 30 minutes of exercise every day.
- Walking is the safest exercise and one of the best.
- Physical exercise reduces stress, combats depression, restores energy, improves sleep, and strengthens bones.
- Add 30 minutes every other day with strength building exercises to keep your joints and muscles flexible and elastic.

Water

- Rinse out and refresh your insides by drinking a glass or two of water on arising.
- Come alive with an alternating hot and cold shower in the morning.
- Lighten your body's metabolic load and increase circulation by drinking plenty of water—at least eight glasses per day.

Sunshine

- Pull back the drapes! Fill your home with sunshine! It will lift your spirits, brighten your day, and improve your health!
- Spend sometime outdoors every day.

Temperance

- Live a balanced life. Make time for work, play, rest, exercise, and hobbies.
- Nurture relationships and spiritual growth.
- Protect your body from harmful substances, such as tobacco, alcohol, caffeine, and most drugs.

Air

- Air out your house daily. Sleep in a room with good ventilation.
- Keep your lungs healthy by taking frequent deep breaths. When possible, walk outdoors every day.
- Fill your house with green plants that absorb carbon dioxide and increase oxygen.

Rest

- Reserve seven to eight hours a night for rest and sleep. The body needs this time to repair and restore the damage of daily wear and tear.
- Go to bed early enough to wake up feeling refreshed.
- Devote time to a change of pace. Attend church, go on a picnic, plant a garden, pursue a hobby, take relaxing, enjoyable vacations.

Trust

- Foster resilience, a life of quality and fulfillment which includes spiritual growth and development.
- Love, faith, trust, and hope are health-enhancing. And they bring rewards that endure.
- Trust in God augments all healing—physical, mental, emotional, and spiritual.



SUMMARY

“Let Nutrition Be Your Medicine.” —Hippocrates



To win the battle against the epidemic of modern lifestyle diseases, we must break with the lethal excesses of today’s diet. We need a simpler, more natural way to eat, and a more balanced lifestyle.

As incredible as it might seem, there is one diet that not only prevents most of these killer diseases but also helps reverse them. Such a diet consists of a wide variety of foods “as-grown,” simply prepared with sparing use of fats, oils, sugars, and salt. It contains very few refined, engineered products. Animal foods, if used at all, are strictly limited.

Adopting this simpler, more natural dietary lifestyle brings improved health and increased energy. We can eat larger quantities of food without gaining weight, and still cut our grocery bills in half. Where, indeed, can we find a better bargain than that?

“Many transgress the laws of health through ignorance, and they need instruction. But most of us know better than we do.

We need to be impressed with the importance of making the knowledge we have a guide for our lives.”

—E. G. White, *The Ministry of Healing*



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Where can I find CHIP?

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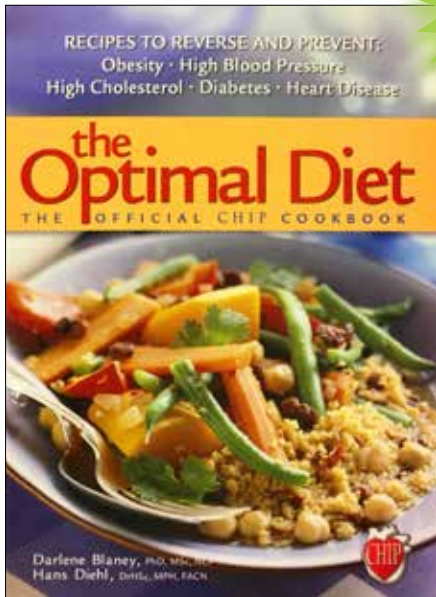




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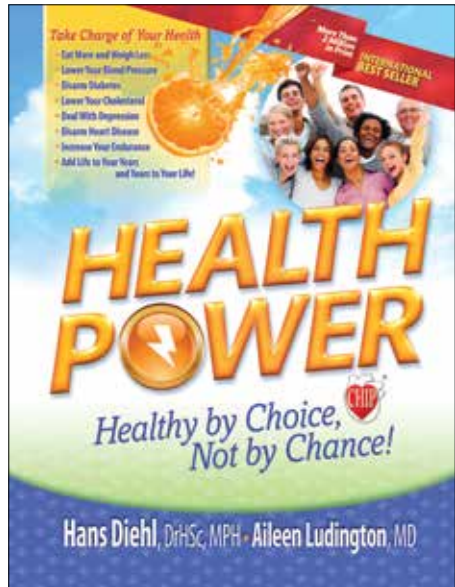
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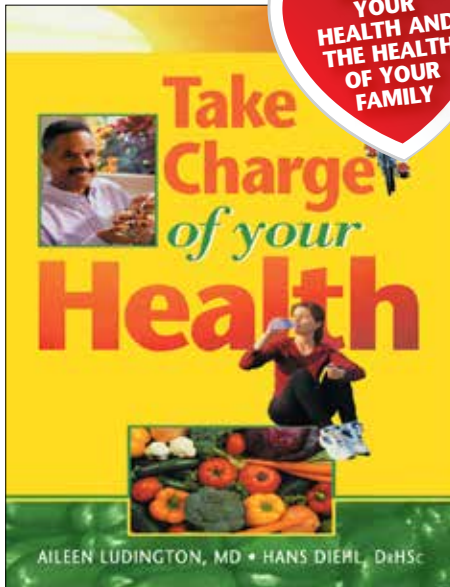


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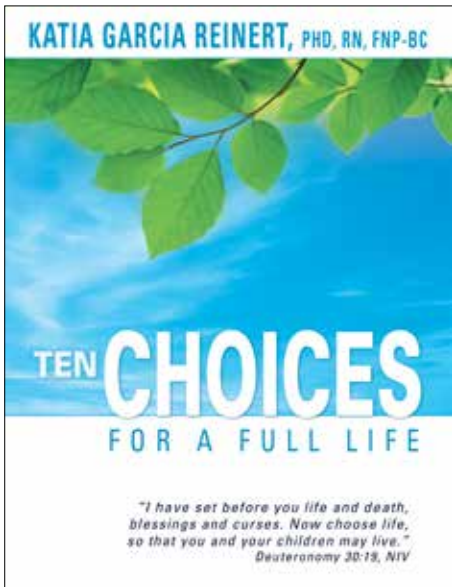
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KATIA GARCIA REINERT is a family nurse practitioner and public health clinical nurse specialist. She practices internal medicine in Hyattsville, Maryland, and serves as associate director of Health Ministries for the General Conference of Seventh-day Adventists. Reinert worked for 15 years as a critical care nurse and occupational health nurse practitioner. She has a special interest in lifestyle and preventive medicine and received her PhD from Johns Hopkins University, School of Nursing in Baltimore, Maryland.



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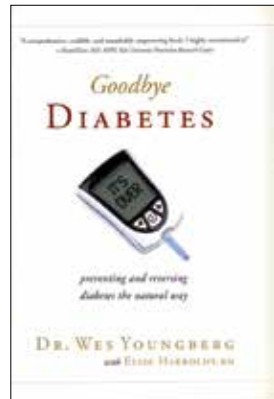
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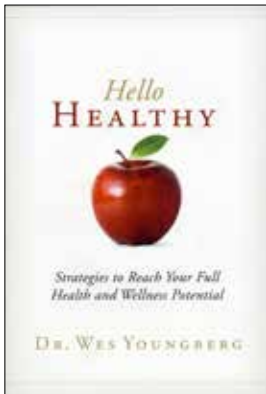
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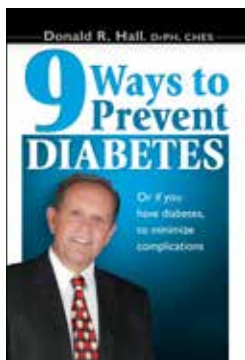
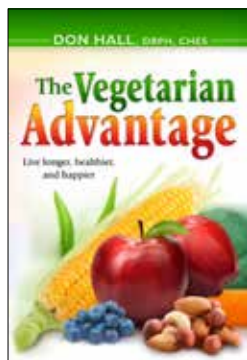
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