Arthritis and Rheumaticism

VANCE FERRELL

Sixty scientific and/or clinical research studies by doctoral scientists or physicians.

Over 50 years of scientific and clinical research into arthritic and rheumatic diseases.

And much of it is unknown today except to students in large research and university medical libraries.

Plus a section at the back with 28 folk remedies.

Aetheitis – eheumatism – buesitis – gout – sciatica – osteoaetheitis – eheumatoid aetheitis – lumbago – multiple aetheitis.



HB-602-E
You Can Quit Alcohol
by Vance Ferrell
Published by Harvestime Books
Altamont, TN 37301 USA
Printed in the United States of America
Second Edition © 2003
First Edition © 1987

All information, data, and material contained, presented, or provided here, is for general information purposes only and is not to be construed as reflecting the knowledge or opinions of the publisher, and is not to be construed or intended as providing medical or legal advice.

The decision of how to overcome your arthritis is an important and complex issue and should be made by you, and you alone, in consultation with your health care provider.

Copyright Notices

Copyright 2003 by Harvestime Books. All Rights Reserved.

No part of this publication may be reproduced or transmitted in any form or by any means, mechanical or electric, including photocopying and recording, or by any information storage and retrieval system, without permission in writing from the publisher. Requests for permission or more information should be sent to Harvestime Books at the address below. Published by Harvestime Books

Box 300

Altamont, TN 37301

(931) 692-2777 / Fax: (931) 692-3013

Please visit our Web Site at http://www.pathlights.com

Produced, e-printed, and distributed in the United States of America.

Legal Notices

This book is designed to provide information in regard to the subject matter covered. While all attempts have been made to verify information provided in this publication, neither the author nor the publisher assumes any responsibility for errors, omissions or contrary interpretation of the subject matter.

This manual is sold with the understanding that the publisher and author are not engaged in rendering medical, legal, accounting, or other professional services. If medical, legal, or expert assistance is required, the services of a competent professional should be sought. The publisher wants to stress that information contained herein may be subject to varying state and/or local laws or regulations. All users are advised to retain competent counsel to determine what state and/or local laws or regulations may apply to the user's particular situation.

The purchaser or reader of this publication assumes responsibility for the use of these materials and information. Adherence to all applicable laws and regulations, both federal and state and local; governing professional licensing; business practices; medical practice; advertising; and all other aspects of doing business in the United States or any other jurisdiction is the sole responsibility of the purchaser or reader. The author and Publisher assume no responsibility or liability whatsoever on the behalf of any purchaser or reader of these materials. The purpose of this workbook is to educate. Any perceived slights to a specific individual or organizations is unintentional.

Contents

INTRODUCTION	. 5
1 - SIXTY-TWO RESEARCH STUDIES	.7
1 - Hoffer Helps His Mother	.7
2 - Earnest Planck's Dissertation	. 7
3 - The Lucas-Power Discovery	8.
4 - The Philadelphia Report	. 8
5 - Allergic Foods	. 9
d - Williams Sees Vitamin Problem	. 9
7 - The Beusch and Johnson Diet	. 9
8 - The F.H. Moss Observation1	0
9 - The Banton-Weight Discovery1	
10 - Bealy's Counsel1	1
11 - Health Secrets from Europe1	1
12 - The Brewer Observation1	2
13 - Miller's Conclusion1	2
14 - Beanner's Work with Sciatica1	3
15 - Dr. Page's Work1	3
16 - The Gerber Discovery1	3
17 - Folic Acid and Arthritis	
18 - Vilyansky Turns to Vitamin C	
19 - One Doctor's Report1	
20 - Arthritic and Rheumatic Theories1	
21 - Klemes Uses 812 on Bursitis1	5
22 - The Childer's Study1	8
23 - Leitch's Investigation1	7
24 - Iodine and Rheumatism1	7

25	-	Geomwell's Investigation into Galcium	1	7
28	-	Whedon, Lutwak, Smith, and the Galcium Balance	1	7
27	-	The Aheumatoid Factor	1	7
28	-	Dr. Gerber's Discovery about Gamma Globulin	1	8
29	-	Arthritis as an Emotional and Stress Disease	1	8
30	-	Gobb Researches the "Arthritic Personality"	1	9
31	-	The Baufeld Observation	1	9
3 2	-	The McGormick Testing	1	9
33	-	The Solomon-Moos Research	1	9
34	-	The Keinholz Finding	2	0
35	-	The Ana Aslan Geniatric Studies	2	1
38	-	The Folkers-Ellis Research	2	1
3 7	-	The Siri Khalso Concept	2	2
38	-	The Burst of New Light for Dr. John Ott	2	2
39	-	The London Experiments	2	4
		The Rivers and Robertson Articles		
		The Rinehard Papers		
		Wright Focuses on Heberden's Nodes		
		Ebba Waerland's Work		
44	-	Paul and Tennis Elbow	2	S
		Or. Blau Decides to Eat Cherries		
		The Gopenhagen Project		
		The Shatin Research		
		The Abrams-Sandson Discovery		
		The Tel Aviv Experiment		
		The McGopmick Study		
		The Kaufman Clinical Studies		
		The Bingham Therapy Program		
		2 - Nine More Research Studies		
		TWENTY-EIGHT FOLK REMEDIE8		
		- WHAT ABOUT GLUCOSAMINE AND CHONDROITIN?4		
		- SUMMARIZING THE SUMMARIES4		
5	-	ADDING A BETTER LIFE4	1	8

Introduction

WHY THIS BOOK?—This book was primarily written in order to provide scientific and medical research summaries for three groups of people:

- 1—Medical doctors: There is a wealth of information contained in this book that can provide the hardworking physician with an abundance of scientific research information on arthritis, rheumatism, and related disorders. Doctors are kept so busy with their practice that it is difficult to keep up with the scores of current medical journals, much less find time to explore the past issues of these journals for insights into research studies and medical experimentation in this important field.
- 2—Research scientists: There are a couple dozen suggestions in this book for new research studies, and most of these ideas are based on successful past studies that deserve additional exploratory and confirmatory research. As frequently as possible, we have tried to include author, publication, and date of past scientific and medical research; so that you could read these reports for yourself in the nearest medical library—and then continue the research on from there.
- 3—Careful students of medical literature: Here you will find an abundance of information that you can share with your family physician and others who are concerned with learning additional ways to minister to the needs of the arthritic and rheumatic.

And, of course, we should add this: If you, yourself, have arthritis, rheumatism, or related problems, you will want to consult with your physician or a medical specialist in this field.

WHAT IS OSTEOARTHRITIS?—Osteoarthritis and rheumatoid arthritis are the two main types of arthritis. Osteoarthritis most frequently occurs in older people and consists of a continual wearing away of the cartilage in a joint. Cartilage is the smooth, soft bone-like substance that covers the ends of bones at the joints. This smooth substance enables the bones to slide against one another without friction or wearing away. But when this cartilage becomes thinner, the rough surfaces of the bones then rub together, which brings pain and stiffness.

Osteoarthritis most frequently affects the weight-bearing joints, such as the hips and knees. The most common symptoms of osteoarthritis include stiffness in the body and pain in the joints. This pain increases in damp weather, in the morning, or after strenuous exercise. WHAT IS RHEUMATOID ARTHRITIS?—The condition is most likely to begin between the ages of thirty and forty. Affecting the entire body and not merely certain joints, rheumatoid arthritis is often associated with physical or emotional problems.

Rheumatoid arthritis destroys not only the cartilage, but also some of the bone itself. This problem especially occurs in and near joint areas. Soon, scar tissue develops, and the spaces between the joint may narrow as a result—and even fuse together. This brings stiffening and crippling.

Symptoms include pain and swelling in the joints, fatigue, weight loss, anemia, and fever. At times these symptoms will disappear for awhile and then reoccur later.

U.S. GOVERNMENT REPORT—According to a United States Government report, approximately 13 million Americans suffer from arthritis, thus making it the nation's number one crippler. Over 10 million people have seen a doctor in the search for relief, and more than 3 million report limitation of their usual activity because of the disease. An estimated 1.3 billion dollars is lost to the American economy because of this disease. For more information, see "Arthritis," Public Health Service Publication, No. 1444-A, U.S. Department of Health, Education and Welfare, Washington, D.C.

Chapter One consists of summaries of sixty-two scientific research studies. It is filled with helpful information.

Chapter Two contains over two dozen folk remedies. There is so much information which researchers and common folk are unaware!

Chapter Three summarizes all the data in Chapters Two and Three.

It is the desire of the author of this little volume that these summaries will provide research and clinical scientists with the research findings needed to help them in their work.

That the pain and damage caused by the arthritic and rheumatic diseases may be forever erased from the lives of the family of God on this planet is the earnest desire of this writer.

—vf

Chapter One

Sixty-Two

Research Studies

The following summarized research studies into arthritic and rheumatic problems should provide a wealth of information for utilization by research and medical personnel. As you will note, the clinicians that conducted these studies were highly qualified scientists or physicians.

1 - Hoffer Helps His Mother

Dr. Abram Hoffer, the distinguished Canadian psychiatrist who successfully treats patients with massive doses of various vitamins, received a letter from his mother: The pain from arthritis was becoming intense; what could he suggest that might help?

He told her to take large doses of niacin (which is ${\bf B_3}$, one of the B vitamins). She was suffering from arthritis, incipient blindness, and failing memory.

Six weeks later she wrote her son a thrilling letter: "My vision is okay, my arthritis is gone, and I feel marvelous!" In commenting later on this, Dr. Hoffer remarked: "Today she is 86. Her mind is just as keen as it ever was and she spends her time writing her memoirs." From the day he gave her instructions, she has been steadily taking 3 grams of niacin (3,000 milligrams) a day."

In connection with this, keep in mind that niacinamide is the same as niacin, but will not flush your face (redden it and make it hot for a minute or two) as Niacin will. If you are not sure what I mean, take a couple tablets of niacin and you will understand. The flushing causes no harm to the body.

2 - Earnest Planck's Dissertation

Dr. E.H. Planck published the results of his research into certain effects of inadequate calcium intake in the human body.

After a lengthy study, he noted that all of the following symptoms occur when there is insufficient calcium in the diet:

(1) Bone pain above or below the joints. (2) Pain in the arms, centering in the forearm muscles, or biceps, and in the calf muscles of the leg. These

cramps (especially those in the calves) tend to occur during sleep or exercise. (3) Painful cramping of the feet and toes after going to bed, and spastic contractions of the hands and fingers after use. (4) Backaches, dizziness, insomnia. (5) Fainting and nausea in women. (6) Nervous irritability and emotional instability. (7) Dermatitis of the scalp and face. (8) Brittle teeth with many cavities. (9) Shortness of the breath. Dr. Earnest Planck found that all of the above symptoms, generally considered signs of "growing old" when they occur in the mid-forties, quickly lessened or left entirely when the calcium intake was increased.

3 - The Lucas-Power Discovery

Working with obese patients at the Detroit Medical Center, Charles P. Lucas, M.D., and Lawrence Power, M.D., gave them a modified fasting program. Then they noted that two of the patients, which had rheumatoid arthritis, experienced no pain or arthritic problems while on the fast.

Lucas and Power next put the two women on a diet very low in fats and oils while adding only a few foods at a time. After only a few days the women found that their arthritis had cleared up completely. But when they returned to eating chicken or meat, their arthritis flared up again.

Further dietary experiments revealed that the problem was the meat and the fat, specifically animal fat and hydrogenated vegetable oils.

Lucas and Power reported that the two women were able to free themselves of arthritic symptoms—simply by switching to a vegetarian diet; this was a diet which included no meat, oils, or dairy products containing cream. Over a period of time, Drs. Lucas and Power confirmed their findings with work on a number of other patients suffering with rheumatoid arthritis. A careful report of their work appeared in the Journal of the American Medical Association, April 9, 1982.

4 - The Philadelphia Report

In another JAMA article, Peter D. Utsinger, M.D., and his associates at the Germantown Medical Center in Philadelphia, reported on an experiment with 24 patients suffering from painfully rheumatic knees. The research team used what they called "Baggie-therapy." Essentially, this is just an old-fashioned water therapy treatment which, as with most hydrotherapy applications, can bring so much help to those in need. (See the present author's book, Water Therapy Manual, which describes over 160 ways to use hydrotherapy, with step-by-step instructions).

As described in the JAMA article, the treatment consists of placing six ice cubes in a plastic bag and then applying them above and below the knee for 20 minutes at a time. Simple as that. Careful records were kept, and the researchers said that, as a result of this simple treatment, the patients could move, their knees more freely, had more strength, and took less medication than before this ice-cube therapy was administered (Journal of the American

5 - Allergic Foods

Food sensitivities can be related to arthritis: This is the report from a number of research groups. In England, for example, 22 patients were placed by doctors on a diet that did not include certain foods which they might be allergic to. Twenty of the 22 patients reported that their rheumatoid arthritis had improved, on average, within only 10 days.

What were the foods that these individuals were most sensitive to? The most frequent offenders included grains, milk, seeds and nuts, beef, cheese and eggs. Some were especially allergic to chicken, fish, potatoes, onions, and liver. The most frequent problem food was grain products, which affected 14 of the 22 patients.

Afterward, in a follow-up experiment, the 22 were put back on the allergic foods. Immediately, 19 of them found their arthritis getting worse again, sometimes in as little as two hours! This entire research experiment was later written up and published in *Clinical Allergy, Vol. 10, No. 4, 1980*.

6 - Williams Sees Vitamin Problem

Dr. Roger J. Williams, the well-known biochemist who discovered pantothenic acid (an important vitamin in the B complex), in his book, *Nutrition against Disease*, found many arthritics to especially be deficient in the B vitamins, especially niacin, pantothenic acid, folic acid, pyridoxine (B_6), and also others.

He added that infections, injuries, allergic reactions, and mental stress may all have a part in bringing on arthritic conditions. But, he concluded that the most significant problem was a poor diet and a lack of important vitamins.

7 - The Brusch and Johnson Diet

Dr. Charles M. Brusch and Dr. Edward T. Johnson of the Brusch Medical Center in Cambridge, Massachusetts, studied over a hundred cases of osteoarthritis and rheumatoid arthritis.

Their carefully supervised program was based on restricted water intake and the administration of fish liver oil given to a fasting patient (on only 1,800 to 2,400 calories a day). 92 percent of the arthritic patients appeared to improve within two weeks.

Three observations about this program should be mentioned: (1) The patients were given a very good diet that excluded candy, soft drinks, cake, ice cream, foods made with white sugar, etc. This diet by itself would yield very helpful results. (2) Fish liver oils are known to damage the heart muscle. It would be far wiser to use one or several of the many other approaches to arthritis management and recession, and avoid the use of fish liver oils. (3) Vitamin D is essential to the proper utilization of calcium, and calcium is

known to be a very helpful ingredient in the control of arthritis. But sunbaths could very effectively provide this much-needed vitamin.

8 - The F.H. Moss Observation

Dr. F.H. Moss, writing before the Second World War in the Chinese Medical Journal (Vol. 53, pp. 72-77, 1938), described a case in which a Chinese farmer, who had acute multiple arthritis, was dramatically healed by drinking 800 to 1,200 cubic centimeters of "fresh red fruit juice." As reported in his article, this happened in the midst of a scurvy epidemic in China. This is believed to be the first Chinese report on the relation of vitamin C to arthritis.

9 - The Barton-Wright Discovery

B.C. Batton-Wright, D.Sc., F.R.I.C., F.I.Bio., is a much respected scientist in England. In 1974 he published a paper entitled, "Arthritis: A Vitamin Deficiency Disease."

In that paper, he presented a powerful case for his contention that a deficiency of pantothenic acid is a definite cause of arthritis in human beings.

What is pantothenic acid? It is one of the B complex vitamins, and was first isolated by Dr. Roger Williams, who gave it its name. This vitamin is found in most plants of nature, but is quickly destroyed by the heat used in the normal cooking of food. Thus, while there is lots of it around us, very little gets into our bodies—unless we eat enough raw food.

Cooking destroys pantothenic acid; so does food processing. So cooked food and canned food alike contains none of this very important vitamin.

Among the best natural sources of pantothenic acid are brewer's yeast, alfalfa, and fresh eggs. Other natural foods contain far smaller amounts of it.

Among its many important duties in the human body, pantothenic acid enables bones to form and hardens cartilage. But when it is lacking in the diet, bones weaken, joints decalcify, and cartilage breaks down. All these are symptoms of osteoarthritis!

Pantothenic acid first came to the attention of Dr. Barton-Wright about 1960, when he was analyzing that amazing substance: royal jelly. He found this secretion of honey bees to be unusually rich in pantothenic acid. So he began studying it.

(At this point, the writer of this book wishes to share with you the fact that much of the royal jelly sold on the market has been processed heavily enough that it may not have much worth. This information came from a beekeeper friend in Florida who is a full-time royal jelly extractor. He has found that his bees refuse to use commercial royal jelly—the kind you buy in stores.)

Because of the very high loss of pantothenic acid due to unavailability or loss through processing or cooking, Barton-Wright says, "This vitamin is

required in the human diet in comparatively large amounts, at least 25-50 milligrams daily." Yet the average American diet only provides 4.5 milligrams of pantothenic acid per every 2,500 calories. That figure does not include nutrient losses due to processing and cooking! So the average person should obtain about 40 to 45 milligrams, a day, more pantothenic acid than he now receives.

Here is more information on why you need so much pantothenic acid in your diet: Barton-Wright says that the substance is *thermolabile*; that is, it is especially sensitive to dry heat. Large amounts of destroyed food is toasted or roasted. In addition, when vegetables are cooked, it dissolves in the cooking water. So those who do not drink all the cooking water lose as much as 66% of this nutrient.

In addition to high losses through canning, cooking, and water absorption, the pantothenic acid you do absorb tends to be more rapidly used up as you physically work or emotionally worry. Since life is full of both, you are certain to always need it.

10 - Braly's Counsel

James Braly, M.D. of Encino, California, is something of a specialist in the treatment of arthritis. Asked about his thoughts on this important subject, he noted that arthritis is brought on by many different problems in modern life and needs to be treated by an all-round diet, not just by one food or the other. He mentioned that allergies are one of several forms of physiological and psychological stress that contribute to arthritis.

An expert in nutrition, he suggests that a diet for arthritis should be based on natural, unrefined foods, with the addition of vitamin and mineral supplementation. He says that it is very important that alcohol, caffeine, tobacco, refined sugar, and excess fats be totally eliminated. He concludes by saying that learning to handle emotional stress and getting adequate rest would rank very high in importance in solving this painful disease.

11 - Health Secrets from Europe

In his book, *Health Secrets from Europe*, Dr. Paavo O. Airola outlines several methods used in Europe to treat arthritis:

- (1) Fasting, such as is given at the Buchinger Clinic in Germany, where fasts are from 14 to 21 days in length. It should be understood, however, that no one should undergo such treatment except under the direct supervision of an expert in this field. (Beware of long fasts; they can injure you! Never fast for over three days at a time.)
- (2) Dry brush massage of the skin, in order to bring blood to the skin, stimulates the general circulation, and opens the pores. This helps rejuvenate the skin, which is the largest eliminative organ in the body.
- (3) A five-to ten-minute warm shower, followed by a half-minute to a minute cold shower. Then comes the dry brushing, described above. A quick-

ening of the entire circulation and a stimulation of the adrenal and other endocrine glands is effected by this showering.

- (4) Various therapeutic baths are given in the rebuilding centers of Europe. These include: sitz bath, whirlpool bath, steam bath, and sauna, plus several specialized ones: Kuhne-bath, Schlenz-bath, and the warm sand baths.
- (5) Herb teas and fresh fruit and vegetable juices are used both during and after fasting programs. Recommended juices include carrot, celery, beet, cabbage, apple, orange, lemon, and grape.
- (6) Vegetable broths. Fresh vegetables are cooked, and then the water is drawn off for drinking.
- (7) Vitamin and mineral supplements, such as C, certain B complex vitamins, bioflavinoids (vitamin P), and cobalamin (B_{12}) . For further information, we refer you to Dr. Airola's book.

12 - The Brewer Observation

Earl Brewer, M.D., chief of the rheumatology department at Texas Children's Hospital, in Houston, was trying to find some practical solutions to arthritis in children. Then, quite by accident, he found that one of his young charges gave him an insight into the matter. The boy had been suffering with juvenile rheumatoid arthritis and found that, when he used a sleeping bag, instead of regular bedding, the usual morning stiffness and pain was not present. From then on, the boy continued to sleep in the sleeping bag, with continued good effects.

Then the boy told his grandmother of his discovery, and she tried it. The next morning, her osteoarthritis (a condition usually affecting only older folk) did not bother her as much. So she continued using a sleeping bag.

By this time, Dr. Brewer decided to recommend that more of the young people at the hospital try using sleeping bags. No nutritional changes were made, so only partial recoveries could be effected; but a number of them were so pleased with the results that they continued them after they left the hospital and went home.

Other people have also reported being helped by the "sleeping bag therapy." Mattresses often do not provide as much warmth as the blankets laid over the sleeping person. But by placing extra blankets underneath the bottom sheet—or by using a sleeping bag, which has the added feature of keeping out many of tie side drafts—it is easier for the body to provide the needed heat during the hours of sleep to help the healing blood to flow evenly all night long, as it quietly works to restore the wear and tear of the day's activities.

13 - Miller's Conclusion

As a result of his studies into drinking fluoridated water, John J. Miller, Ph.D., concluded that osteoporosis, arthritis, and bursitis was worsened

when city water treated with fluoride was ingested (Complete Book of Minerals and Health, page 380).

14 - Branner's Work with Sciatica

Dr. E. Branner reported, in the *British Medical Journal* in 1944, that vitamin B complex was very helpful in treating sciatica. This is a painful inflammation of the sciatic nerve, which is the longest nerve of the body and located in the back of the upper leg. For this purpose, he used vitamin B_1 (thiamine) injections, drawn from ampoules containing 25 milligrams of thaimine per cubic centimeter. Three to six injections on consecutive or alternate days were given.

15 - Dr. Page's Work

Melvin E. Page, D.D.S., of Florida, has done extensive work with bone deterioration and its causes. His field of study concerns the teeth in relation to a calcium-phosphorus imbalance. It is his belief that not only pyorrhea and tooth decay, but also arthritis, is caused by an imbalance of calcium and phosphorus in the body. He found that eating processed foods, white sugar, and candy were primary factors in producing this imbalance.

In order to obtain a proper balance of calcium and phosphorus in the system, it is necessary to take in twice as much calcium as phosphorus, in the diet, and eliminate all highly processed and junk foods.

16 - The Gerber Discovery

A new approach to the relief of arthritis, previously unknown in the U.S., was unfolded at the 1969 meeting of the American Federation for Clinical Research. Gathered to hear reports in this Washington, D.C. session, physicians were presented with an abundance of factual evidence by Dr. Donald Gerber, associate professor of medicine at the Downstate Medical Center of the State University of New York.

Dr. Gerber's view is that rheumatoid arthritis is caused by a deficiency of the amino acid, histidine, in the bloodstream. In his studies, he repeatedly found that the serum, histidine, concentration in rheumatoid arthritics was 28 percent below that of other people. He also found that, as the disease progressed, this percentage fell lower and lower.

Medical World News for February 13, 1970, reported on Gerber's discovery (which was actually based on earlier tentative research done in Europe). The whole matter still remains something of a medical mystery. This is because Histidine is a fairly common amino acid found in most protein substances that you eat. It is not difficult for the average person to obtain this in his diet. Why, therefore, should there be any shortage of this amino acid in the bodies of arthritics?

Yet the fact remained that when Dr. Gerber had given histidine to arthritic patients, the results were always favorable.

A total of 59 rheumatoid arthritic patients, many with very severe symptoms, were given histidine by mouth. Although the amount given them varied in accordance with the severity of their condition, it averaged 3 grams a day.

Looking over the results, it appears that the histidine plan is not adequate in itself to solve the problem; yet it is a factor and, as such, should receive our thoughtful attention. The histidine treatment required many months and, in many cases, achieved only a partial recovery. When 18 patients were taken off the histidine, 14 immediately got worse. So it would not be wise to bank too much on that route as a solution to one's personal arthritic problems.

Histidine, being a perfectly natural dietary substance and not a drug, produced no side effects. (The present writer suspects that there may be something in the diet of many people, possibly the purines in meat, which is blocking histidine utilization or destroying it.)

17 - Folic Acid and Arthritis

"Arthritis patients have been found to be lacking in folic acid, a vitamin of the B complex. Diets that are not nourishing increased the need for folic acid because of the arthritis or possibly increased demand for it because of the aspirin taken by the patient."—Ruth Adams, Complete Home Guide to All the Vitamins, pages 180-181.

18 - Vilyansky Turns to Vitamin C

Dr. I.M. Vilyanski reported on his work with 39 patients in the Russian journal, *Klinicheskaia Meditsina*, in which he gave 200-300 milligrams of ascorbic acid (vitamin C) intravenously. This was one of the first Eastern European research studies on vitamin C and rheumatism. His tests showed all 39 rheumatics to be quite deficient in ascorbic acid; and supplementing their diet with it resulted in less pain, less swelling, better mood, and increased mobility in twenty-six of the patients. Eleven took longer to respond and two showed no effect. Those two had earlier been treated with salicylates (aspirin). He concluded by stating that three to five injections of ascorbic acid were sufficient to eliminate the attack of rheumatism in most of the cases he worked with (*Klinicheskaia Meditsina*, Vol. 19, p. 121, 1941).

19 - One Doctor's Report

The work of John M. Ellis, M.D., with rheumatism has been discussed elsewhere in these pages. Here is a brief quotation from his book, *Vitamin* B_6 : The Doctor's Report, which summarizes the results he obtained by giving pyridoxine (vitamin B_6) to patients suffering with rheumatism in their hands:

"Because the objective findings in the patients I successfully treated for rheumatism were so apparent to patients and doctors alike, I would like to outline briefly the results obtained by pyridoxine. The ten main features include:

"1. Reduced edema. 2. Reduced pain. 3. Increased range of flexion [bend-

ing the fingers]. 4. Increased speed of flexion. 5. Eliminated locking of finger joints. 6. Increased strength of grip. 7. Improved sensation. 8. Improved coordination. 9. Reduced stiffness. 10. Sustained flexion."

The above quotation was then followed by three more pages of descriptions of other symptoms that were alleviated (such as edema, sweaty palms, pain, numbness and tingling, etc., in the hands and elsewhere in the body).

20 - Arthritic and Rheumatic Theories

Scientists are busily at work trying to figure out the cause of arthritis and rheumatism. Many discoveries have been made and many more will be made. Some of the most important of these discoveries are be found in the book you are now reading.

As a practical base from which to operate in carrying on their research, scientists tend to fall into one of four major groups; and the premises which direct them in their work are known as the "arthritic and rheumatic theories."

The first of these is the *viral theory*, which views arthritis and rheumatism as a result of a virus invasion of the body. The second is the *metabolic theory*, which sees these diseases as caused by a somehow weakened body metabolism. The third identifies the problem as some kind of *weakness in the autoimmune system*. The fourth major theory considers arthritis and rheumatism to be the result of a *nutritional disorder*: not enough of the right food and/or too much of the wrong food or some kind of physical absorption problem.

At this time, the far greater portion of medical research into the causes and possible alleviation of arthritis and rheumatism are based on the viral theory. This is the view that, if the right antivirus vaccine can be found, it would solve the whole problem. However, a growing number of researchers are recognizing that diet is a crucial factor. Far too much of the junk food on the market provides little nourishment, but instead clogs the system and produces acids which are stored in joints and muscles.

21 - Klemes Uses B₁₂ on Bursitis

The ball on the long end of the arm or shoulder bone fits into a little pocket which is called the "bursa." Fluid and tissue inside the bursa enable the bones to move without friction or irritation. If this tissue becomes inflamed, if the fluid thickens, or if calcium deposits form—bursitis is the result.

Dr. I.S. Klemes, medical director of the Ideal Mutual Insurance Company, did extensive research into this problem and wrote up his conclusions in the Journal of the American Medical Association for July 1956. He later wrote another article for the June 1957 issue of Industrial Medicine and Surgery. Klemes treated sub-deltoid bursitis (shoulder bursitis) with vitamin B_{12} with very good success. He concluded: "Vitamin B_{12} and folic acid both seem to be

essential in the synthesis of nucleoproteins . . It seems certain that vitamin B_{12} is of importance in the metabolism of nervous tissue, although the mechanism of its action is not known . . Vitamin B_{12} has proved effective in relieving the pain of trigeminal neuralgia in a significant proportion of patients."

Included in his two research papers were several case histories that show the value of giving vitamin B_{12} , along with folic acid, to sufferers with bursitis. (Vitamin B_{12} and folic acid are both in the B complex and tend to work closely together within the human body.)

Of the 140 bursa, or joint pockets, in the body, it is the sub-deltoid bursa in the shoulder joint that is the primary source of pain and bursitis. It is of interest that genuine "arthritis" only occurs in the shoulder in about 5 percent of the cases; all the rest are due to an inflamed bursa—bursitis.

Chilling the shoulder during the day or at night, the habitual use of one arm more than the other in one's occupation, and the acids in meat eating are other causes of bursitis.

22 - The Childer's Study

About ten years ago, the research of Dr. Norman Childers came to light. His findings were written in a large book that he published. Here is a summary of what he discovered:

The nightshade family is one of the six primary plant families used for food on planet earth. Yet all members of it contain the chemical, solanine, which, when eaten, tends to cause an arthritic-like condition in the body joints of certain people. The symptoms include swelling and pain.

The members of this family which have this chemical are the following: tobacco, white potatoes (not sweet potatoes, or yams), peppers (both green and cayenne), tomatoes, and eggplant.

At the time, the present writer learned of Childers' study, he told his wife. Shortly thereafter, because she was beginning to have arthritic joint pains and swelling, she stopped eating the solanaceous crops in her garden (white potatoes, green peppers, eggplant, and tomatoes). Immediately, the pain went away and shortly thereafter the swellings went down. Others have had similar experiences.

Fortunately, if you have a problem with the solanaceous crops (solanum is a genus of the nightshade family), then you can very easily determine it: Simply stop using the above named vegetables. If the solanine in these foods is causing your arthritic pains, you should see improvement within a month or so. If you do not, then go back to eating them again.

Keep in mind that tobacco leaves, used in all tobacco products, are in this family also, Another member of this unusual plant family is the deadly nightshade which farmers call 'loco weed,' because of its effects on cattle

which eat it before dying a miserable death.

23 - Leitch's Investigation

Back in, 1937, a British researcher, Leitch, conducted nutritional work with a number of arthritic patients. He later reported that much of their middle-aged arthritic problems stem from insufficient dietary calcium over a long period of time.

24 - Iodine and Rheumatism

Iodine Facts, a publication of the Government of Chili, says that rheumatism; anemia; and diseases of the ear, nose, and throat are much more common among people who have goiter. It is well-known that a lack of the trace mineral, iodine, is the primary cause of goiter.

25 - Cromwell's Investigation into Calcium

The Gerontological Society, in its annual meeting held in San Francisco, heard Dr. L.W. Cromwell' report on his research linking a lack of calcium with the crippling effects of arthritis.

This flies in the face of currently accepted theories regarding calcium. It is generally thought that avoiding calcium and calcium foods (such as fresh and dried fruits) may alleviate arthritis! Dr. Cromwell's research indicated just the opposite.

Calcium deficiency in the body first leads to a condition of osteoporosis, of which those having it are not aware; for there is no pain (unless they break a bone) and the blood calcium continues to remain at normal levels. The bones are gradually losing their calcium, but at the same time, because of other nutritional deficiencies, calcium from the bones is being laid down in the soft tissues, around the joints, and between them.

26 - Whedon, Lutwak, Smith, and the Calcium Balance

The American Rheumatism Association, at its June 1961 meeting, learned about the research of G. Donald Whedon, M.D. and his associates, Leo Lutwak and Preston-Smith. These staff members of the National Institute of Arthritis and Metabolic Diseases, in Bethesda, Maryland, had just completed extensive work on calcium in relation to osteoporosis. In the paper they presented at this meeting, they explained that a higher dietary calcium intake provided definite help in solving the problem—whereas the giving of corticosteroids was found to increase the severity of the osteoporosis!

27 - The Rheumatoid Factor

The majority of rheumatoid arthritis patients have a mysterious "factor" in their blood serum. Lacking a better name for it, scientists call it the "rheumatoid factor" (RF). This blood factor is known to involve an antibody which has an immune reaction to denatured (altered) gamma globulin (which is

itself an antibody).

Every theory of arthritis and rheumatism has to take into account the fact that, due to the RF factor, the arthritis-rheumatism problem is, in some way, related to the immune mechanism of the body.

28 - Dr. Gerber's Discovery about Gamma Globulin

Dr. Donald Gerber (mentioned earlier in this book), in the course of his work with the amino acid, histidine, also discovered that it tends to suppress the denaturization of gamma globulin! This is an important observation, for it would indicate a nutritional and metabolic link to the *rheumatoid factor*. To summarize the situation:

- (1) For some reason, arthritics and rheumatics have this mysterious rheumatoid factor in their blood. The factor is itself an immune reaction-caused antibody. This antibody was produced in reaction to gamma globulin in the blood which had, for some unknown reason, been restructured. (The altered gamma globulin is referred to as "denatured gamma globulin.") Gamma globulin is an important protein that is formed in the blood. The ability to resist infection is related to the amount of this substance in the blood. Thus it is part of the immune system of the body.
- (2) Dr. Gerber's very significant discovery was that gamma globulin cannot be changed or "denatured"—as long as the normal blood amino acid, histidine, is in the blood with it.
- (3) Dr. Gerber also established that arthritics and rheumatics do not have the normal amount of histidine in their blood. His research has also shown that the amount of histidine missing in the blood is directly related to the severity of the disease in the person being tested.

At this time, we are not fully certain as to what mechanism blocks the absorption of histidine—or destroys it in the blood—but enough is known to indicate that arthritis and rheumatism have a metabolic and nutritional basis.

29 - Arthritis as an Emotional and Stress Disease

A growing number of researchers are recognizing that arthritis is more than a war between vitamins and minerals on one side and junk food on the other; the state of a person's mind is also involved.

One of the first scientific articles given to this topic was published in the Canadian Medical Journal for September 15, 1957. This pioneer article discussed still earlier research on this, going back into the 1930s and 1920s. For example, a 1935 study by a Dr. Thomas, involving 32 patients, revealed "a fairly severe emotional disturbance of one kind or another had been present before any sign of rheumatoid arthritis had developed. Another study, in 1937 and 1942 by a Dr. Halliday, indicated a definite restriction, or bottling up, of emotional expression by arthritics.

The 1957 study, reported in the CMJ, told of 18 arthritic patients who were compared with 18 non-arthritic patients similar to them in other ways.

Psychological interviews and personality and mental tests were given to all 36 people. They ranged from 20 to 60 years in age.

A general tendency was for the 18 arthritics to become quite restrained in personality upon becoming adults. Tidy, punctual, shy, and lacking in self-confidence, they tended to withdraw within themselves.

A parallel study, involving 43 rheumatoid arthritis patients, was reported in the August 15, 1957, issue of the Canadian Medical Journal.

This study indicated that a majority of the 43 first experienced arthritic difficulties on the death or divorce of a spouse, as well as prolonged family separation; and that it was all woven in a personality fabric of emotional dependence and immaturity, concealed hostility, and an excessive need to do everything in tandem with another person—rather than alone.

30 - Cobb Researches the "Arthritic Personality"

Dr. Sidney Cobb of the Institute for Social Research at the University of Michigan studied 97 couples and concluded that wives are more likely to develop rheumatoid arthritis if there is continual quarreling in their marriage.

31 - The Baufeld Observation

H. Baufeld, in his article, "Ascorbic Acid in the Treatment of Poly-arthritis," in Deutsche Gesundheitswesen, a Berlin medical journal (Vol. 7, p. 1077, 1952), described his research with vitamin C, in which he gave intravenous dosages of 6 grams of ascorbic acid for acute and chronic rheumatism. He said that he witnessed "astonishing"—results in some cases. He also noticed good response in the treatment of lumbago, sciatica, and bronchial asthma.

32 - The McCormick Testing

Dr. W.J. McCormick published an article in 1955, entitled "The Rheumatic Diseases: Is There a Common Etiologic Factor?" in the "Archives of Pediatrics" (Vol. 72, pp. 107-112, 1955), in which he first presented a scholarly review of medical information about rheumatic problems from the seventeenth century onward, showing a relationship between scurvy (lack of vitamin C) and rheumatic diseases. Then, in the article, he discussed several of his acute rheumatic fever and incipient arthritis cases, in which 1 to 10 grams of vitamin C were given daily. In each instance, there was rapid and complete recovery in three to four weeks, with no cardiac (heart) complications.

33 - The Solomon-Moos Research

George F. Solomon, M.D., an assistant professor of psychiatry at

Stanford University, conducted research work on arthritis and the mind. He presented his work in May 1968 at the Second Conference on Psycho-physiological Aspects of Cancer, held in connection with the New York Academy of Sciences.

Solomon believes that the emotional turmoils in the life lead to a faulty hormonal balance.

At about the same time, Dr. R.H. Moos reviewed the case studies of over 5,000 rheumatoid arthritis patients—and found that they tended to be conforming, self-conscious, shy, inhibited, and deeply concerned about following routines.

Solomon found that, instead of choosing positive adaptations to life and its problems, the "arthritic personality" reacts negatively. Keeping his feelings penned up inside, he will brood over a supposed embarrassment for days or weeks thereafter.

Solomon then teamed up with Moos to conduct further research. The Minnesota Multiphasic Personality Inventory, a test designed to analyze basic personality makeup, was given to a group of women arthritics.

The team discovered that they tended to bottle up their expressions of emotion, were concerned to comply and be subservient, had a great need for security, and were shy and introverted.

Solomon then did a very significant study of non-arthritic women who had these same personality qualities. He found that they did not develop arthritis because, although they tested out with the same personality traits as the arthritic women that he tested—they lacked the *rheumatoid factor* in their blood. His studies indicated that both the "arthritic personality" in the mind and the "rheumatoid factor" in the blood—had to be present in order for a person to develop rheumatoid arthritis.

As noted earlier in this book, the rheumatoid factor is an antibody in the blood serum which has an immune reaction to (reacts against) altered or denatured gamma globulin, which is another antibody in the blood.

34 - The Keinholz Finding

The British medical journal, *The Lancet*, for March 1, 1975, reported the experience of Dr. Eldon W. Keinholz in eliminating arthritis in his own knee. The condition gradually worsened after strenuous leg work (hiking, mountain climbing, etc.) until, in 1973, he could hardly bear the pain. He then began research into the medical literature, and discovered research into the use of selenium (a trace mineral) and d-alpha tocopheral succinate (a form of vitamin E). Here is his story:

"I learned that selenium ingestion has been suggested as a method of relieving some types of arthritis. In January 1974, I began to ingest gelatin capsules, each containing one milligram of sodium selenite plus 68 milligrams of d-alpha tocopherol succinate. One capsule was taken regularly with meals every third day. A week before a hike in September 1974, I ran ap-

proximately one-half mile each day (as I had done before in hikes of previous years) and I increased my selenium and vitamin E intake to one capsule per day. Insofar as I was able to plan the experiment, everything was the same as in previous years with the exception of my selenium and vitamin E intake. I hiked 11 miles in one day, ascending and descending 2,875 feet with absolutely no knee discomfort. This contrasted with past hikes, especially one in which the distance was identical; but I only ascended and descended 1,685 feet and knee pain was nearly unbearable during the last 20 percent of the hike.

"I hope that the success of this small personal experiment will encourage further research into vitamin E and/or selenium therapy of arthritis problems in human knee joints. However, the hazards of selenium supplementation must be borne in mind—one milligram of selenium supplement per day probably approaches the adult human toxicity levels. The vitamin E levels did not exceed those in widespread use."

Here is some additional information on vitamin E and the trace mineral, selenium: Selenium occurs generally in those foods which also contain the most vitamin E (mainly whole-grains and other seed foods). When these foods are refined and processed, both the selenium and vitamin E are taken out, along with many other vitamins, minerals, and trace elements. So eating only refined cereals and breads will almost guarantee a deficiency in both the vitamin E and the trace mineral, selenium.

It is significant that animal experiments have shown that the more vitamin E you obtain—the less selenium you will need! If you are getting sizeable amounts of vitamin E, you will not need much selenium in your diet.

An excellent source of trace minerals is Nova Scotia dulse or Norwegian kelp. California kelp is an inferior source.

35 - The Ana Aslan Geriatric Studies

Several years ago, Dr. Ana Aslan, a Romanian physician, conducted a series of research studies into the effects of a B complex vitamin on arthritic conditions. Her initial studies have since generated further research into this by scientists elsewhere in the world. Studies have shown that the B complex factor, paraminobenzoic acid (PABA), has a softening effect on various body tissues, especially glandular or organ tissues, causing them to act more normally and to improve hormone output. In addition, PABA acts as a coenzyme in the breakdown and utilization of protein. It acts synergistically with the body's own cortisone in the treatment of arthritis. It also aids in normalizing the sedimentation rate, which also is a problem in arthritis. Last but not least, PABA favors the growth of beneficial intestinal bacteria, enabling them to produce folic acid (another B vitamin), which in turn is used by the body to assimilate the much needed vitamin, pantothenic acid.

36 - The Folkers-Ellis Research

Carpal tunnel syndrome is a special type of arthritis experienced by

certain individuals. Characterized initially by a sense of numbness and tingling in the fingers, the condition can later become much worse.

Carpal tunnel syndrome occurs when fluid accumulates inside what is known as the "carpal tunnel." This is an elongated opening within the wrist that is surrounded by bones and ligaments. This tunnel-like space is needed in order to provide space for the many different things that are in the wrist or pass through it, without placing pressure upon one another. Just now, move your wrist back and forth. It is the carpal tunnel that enables continual wrist movement to occur without any problem or pain—in spite of all the bones, ligaments, muscles, nerves, tendons, and blood vessels within it.

But when this unwanted fluid begins to collect inside the tunnel, what is first experienced as numbness and tingling in the fingers can spread to the entire hand, wrist, and later even to the elbows and shoulders.

Karl Folkers, Ph.D., and his staff at the Institute of Biomedical Research at the University of Texas, in Austin, worked over a period of time with John Ellis, M.D., of Mount Pleasant, Texas, on this strange accumulation of fluids that begins in the wrist space.

Their discovery was that patients with carpal tunnel syndrome actually had a severe deficiency of vitamin B_6 (pyridoxine)—and that, supplementation of this vitamin would cause the symptoms to disappear!

Commenting on this remarkable finding, Dr. Folkers said, "They are improved so much that the patients do not need orthopedic surgery for their hands. And what I think is almost unbelievable (but it seems to be true) is that individuals who have had symptoms for years—a decade, even 15 years—show remarkable reversal and improvement of their condition. It doesn't even take huge doses of $\rm B_6$. However, I am convinced that the RDA [Recommended Dietary Allowance] of 2 milligrams is far too low. I believe that an effective RDA would be around 25 milligrams, or possibly 35 milligrams."

37 - The Siri Khalso Concept

In his book, You Can Do Something about Common Ailments, Siri Khalso discusses the importance of certain food nutrients in the diet:

"Because the arthritic person generally suffers from an inefficient digestive system, the addition of betaine hydrochloric acid and glutamic acid HCI, both of which are digestive enzymes, can be of use 'in alleviating this problem. Combined with ammonium chloride and calcium chloride, they work to establish the correct acid/alkaline balance in the body" (page 29).

38 - The Burst of New Light for Dr. John Ott

Dr. John Ott had already made his mark in history with his development of time-lapse photography. This special technique takes a series of carefully timed 35-mm. photographs of such things as the growth of a plant or the opening of a flower.

But eventually age crept up on him, and Ott retired and moved to Sarasota, Florida. He says that he chose Florida in the hope that sitting in the sun would help his gradually worsening arthritis.

Able to walk only with the help of a cane, he would sit in the sun on Sarasota beach, clad only in sunglasses and trunks. But still no help came.

Then, one day, he broke his sunglasses. Out to the beach he still went, squinting in the sunlight. As he reports what followed, he found within the next few days a dramatic improvement in his condition. But he was certain of it when he was able to discard his cane.

Writing in his autobiography, My Ivory Cellar, Dr. Ott recalls the incident: "The weather had been nice for several days and there was some light work outside that I was doing as best I could with my cane in one hand. Suddenly I didn't seem to need the cane.. My hip hadn't felt this well for three or four years. I began walking back and forth, back and forth. I ran into the house and up the stairs two at a time to tell my wife."

Dr. John Ott was the perfect individual to make such a discovery, for he had spent a lifetime as an optical scientist. Concluding that his arthritis had been solved by the full spectrum—all the rays—of sunlight reaching his eyes, he began research work on the subject. He had earlier erected a plastic greenhouse, so the ultraviolet light could reach his plants; now he had taken his sunglasses off—so those ultraviolet rays could reach his eyes. (Ultraviolet light does not pass very well through glass, tinted glass, or plastic.)

Later X-rays of his hip confirmed that which he had been experiencing: "Dramatic healing had indeed occurred! He concluded that his arthritic condition had been helped by the light upon his eyes rather than merely upon his skin.

Having spent a lifetime in research, Dr. Ott went back to work. Hours were spent in medical libraries, and finally he found what he was looking for: Dr. Richard Wurtman, associate professor of endocrinology at Massachusetts Institute of Technology, had done work in this same field. Formerly with the National Institute of Health in Bethesda, Maryland, Dr. Wurtman had investigated the effect of light on the pituitary and the pineal glands. He made the startling discovery that both of these ductless glands, located deep within the brain, are stimulated as ultraviolet light enters the eye.

The significance of this can be understood more easily as one considers that these are two key glands in the body. Not only do they affect growth and maturation, but their hormones also have a controlling effect over the entire endocrine system—they affect all of the glands in the body!

Unfortunately, this was the only research which Ott found of the effect of sunlight on the ductless glands. No research had been done about hormones and arthritis. Yet that single set of studies by Dr. Wurtman, coupled with Dr. Ott's experience, still reveals a lot.

Dr. Ott explains that any type of glass will block up to 99 percent of the

ultraviolet light, so that it cannot pass through.

He also gives some very practical and important suggestions to anyone desiring to do as he has done: (1) Stay outdoors, without sunglasses, as much as you like through the day. (2) Do not look into the sun! This is extremely important, for within a few seconds the direct ultraviolet rays can damage to your eyes. (3) It is necessary to receive some sunlight on your body in order to obtain adequate amounts of vitamin D, which is needed to help the body use calcium. (4) It is not necessary to sit in the sunlight in order to obtain ultraviolet light into your eyes. This can be done while sitting in the shade. But it must be done without window glass, eyeglasses, sunglasses, or plastic sheeting between your eyes and the out-of-doors.

Ott provides more suggestions: (5) Substitute ultraviolet-transmitting plastic, in place of glass, in your windows and spectacles. (6) Use full-spectrum fluorescent bulbs instead of the regular kind. He says these are obtainable from Environmental Lighting Concepts 800-842-8848 (1214 West Cass Street, Tampa, FL 33606), which sells the type of full-spectrum light which Ott found was the best.

In connection with this, it should be kept in mind that current scientific research maintains that skin cancer can be caused by an excessive amount of sunlight on the skin.

39 - The London Experiments

Over a lengthy period of time, three scientists gave pantothenic acid to many arthritis patients. Testing the blood of both normal people as well as arthritics, they found that those without arthritis tended to maintain a level of about 107 micrograms of this B vitamin; whereas arthritics, on the average, only had 68.7 micrograms. As later reported in *Medical World News* for October 7, 1966, they found that any patient with less than 95 micrograms always showed some symptoms of arthritis. And the lower the level, the more severe the symptoms.

They next gave niacin to arthritic patients, but not always with worthwhile results. Yet as they worked, adding other nutrients, the results began coming in. Sometimes improvements were slow in coming; sometimes none for the first four to eight weeks. But, as one of the physicians commented: "Just when the patient is deciding that the cure is no good, the symptoms disappear overnight."

They found that the nutritional supplements had to be maintained indefinitely or the symptoms returned. Yet this only involved taking a few tablets every day.

In connection with their work, they found that a substance called cysteine, which, with pantothenic acid, is found abundantly in royal jelly; this greatly aided in the recovery of arthritics.

40 - The Rivers and Robertson Articles

Writing in the New York State Journal of Medicine (Vol. 65, pp. 1235-

1238, 1965), Dr. J.M. Rivers, in his article, "Ascorbic Acid in Metabolism of Connective Tissue," made this statement: "Abnormalities in this protein (collagen) are basic to the crippling deformities associated with rheumatic diseases and with a number of congenital connective tissue defects." In his studies, Rivers found that an adequate amount of vitamin C was necessary in the diet in order to maintain the body supply of collagen.

A related study (conducted by Dr. W.V. Robertson and reported in his article, "The Biochemical Role of Ascorbic Acid in Connective Tissue," in the "Annals of the New York Academy of Sciences" [Vol. 92, pp. 159-167, 1961] about his studies on indiced granuloma tissue of prescorbutic and normal guinea pigs) revealed that guinea pigs deprived of ascorbic acid (vitamin C) for only 14 days produced tissue containing only 2 to 3 percent collagen while the tissue in normal guinea pigs contain 14 to 16 percent.

Arthritis, rheumatism, and related diseases are often referred to as collagen diseases because of the definite involvement of this protein in their origin and development. Ascorbic acid (vitamin C) must be present in the body so it can produce collagen, and large amounts of this vitamin are necessary for this protein (collagen) to be of a high quality.

Collagen makes up about one-third of the protein in your body. It is used as a "cell cement" to hold your body together! The dreaded disease, scurvy, is nothing more than a lack of collagen, due to an inadequate food intake of vitamin C. Over a hundred years ago, the British Government began issuing its sailors limes to eat, in order to avoid scurvy while out on the ships, far from fresh fruits and vegetables containing vitamin C.

41 - The Rinehard Papers

When vitamin C was first discovered earlier in this century, it resulted in some excellent research that was carried on and published by Dr. J.P. Rinehard and his coworkers between 1933 and 1938. Their investigations clearly linked rheumatoid arthritis with an inadequate supply of vitamin C. We do not have space here to include all of the publication references, but here are three of them: "Studies Relating Vitamin C Deficiency to Rheumatic Fever and Rheumatoid Arthritis," in Annals of Internal Medicine, Vol. 9, pp. 586-59, 1935. "Reduced Ascorbic Acid Content of Blood Plasma in Rheumatoid Arthritis," in Proceedings of the Society of Experimental Biology and Medicine, Vol. 35, pp. 347-352, 1936. "Metabolism of Vitamin C in Rheumatoid Arthritis," in Archives of Internal Medicine, Vol. 61, pp. 537-561, 1938."

This extensive research by Rinehard directly connected the development of the rheumatoid process (both in rheumatic fever and in rheumatoid arthritis) with a lack of ascorbic acid (vitamin C). The amount of his research and conclusions was breathtaking. In addition, he gave confirmation of his findings by producing, at will, rheumatoid lesions in the Guinea pig—simply by combining ascorbic acid deprivation and infection. It conclusively showed that infection alone could not produce these effects.

It is an intriguing fact that, even though this definitive research was done nearly 70 years ago, physicians today generally do not recommend that their arthritic patients take vitamin C.

42 - Wright Focuses on Heberden's Nodes

"Heberden's nodes" is the name given to the bony lumps that form at finger joints. You may have friends who have this problem. It is frequently a very painful condition.

A Northwest physician, Johnathan V. Wright, M.D., of Kent, Washington, made the discovery that Heberden's nodes is quite responsive to vitamin \mathbf{B}_6 (pyridoxine). He has had very good success in treating this condition with this important B complex vitamin.

43 - Ebba Waerland's Work

Ebba Waerland is a well-known Swedish nutritionist who has helped thousands with their health problems at Kiholm, Sweden. The Waerland diet for arthritic problems includes the following:

Immediately take the patient off all salt. Following bed rest, immerse him in warm soda baths (2 lbs. washing soda to a bathtub). Beginning at 99° F., the patient lies in the bath for 15 minutes, during which time hot water is added until the temperature reaches 104° F. These baths are given under the direction of a qualified professional. As soon as he is taken out of the bathtub, he is quickly dried and placed in bed, where he perspires freely. During and after fasts, the bowels must be kept active, with an enema given night and morning during the fast. But no fasts are given if the person has neurasthenia, nervousness, goiter, or tuberculosis.

A careful diet is described on pages 57-58 of her book, Rebuilding Health.

44 - Paul and Tennis Elbow

Dr. N.W. Paul did careful research with 314 patients who had so called "tennis elbow" (technically known as radiohumeral bursitis). This is bursitis in the elbow. His conclusions, as reported in the *Journal of the American Medical Association* for November 30, 1957, showed that food and nutrition was the real cause of this painful condition. The body is either not getting the proper food or it is not using it efficiently. The second of these two possibilities is caused either by a nervous or hormonal disturbance.

Dr. Paul successfully used the following approach: He sought to remove all stimulants, change the diet, and relieve emotional tension. An "antipurine diet" was given. This is a diet that omits all flesh foods. Dr. Paul had discovered that too much uric acid is present in the bloodstream of arthritics, and foods containing this waste product (such as meat and fish) must be eliminated from the diet.

45 - Dr. Blau Decides to Eat Cherries

What do you do when your big toe will not let you rest day nor night? One

day while his family was gone, Dr. Ludwig W. Blau, Ph.D., found that it was dinnertime. Confined to a wheelchair because of the pain, he wheeled himself to the refrigerator, but inside only saw meat and cherries. Dr. Blau had gout in his big toe, and his doctor had sensibly told him he could no longer eat meat or the gout would become worse. So the refrigerator only offered the slim pickings of cherries. He took out the bowl and ate them all.

The next morning the pain in his foot was almost totally gone. Could it be the cherries? So he began eating at least six every day. Then he had to go out of town on a business trip—and forgot the cherries. Within a few days, the pain was back just as bad as before. So he went back on his cherry diet.

He told his personal physician as well as other people. Soon he had compiled twelve case histories of friends whose gout had been greatly helped by eating cherries. Dr. Blau wrote it all up in *Texas Reports on Biology and Medicine (Vol. 8, No. 3, 1950)*. For some reason, the cherries (eaten whole or drunk as cherry juice) does not help the rheumatoid type of arthritis as well as the gouty type.

Eight years after Blau's report was published, an article in *Food Field Reporter* (November 10, 1958) told of an experiment involving a number of gout sufferers in Sturgeon Bay, Wisconsin. They drank cherry juice and had results similar to those that Blau experienced.

It is of interest that this 1958 article also mentioned that several local dentists were recommending cherry juice to their patients as a helpful way to treat pyorrhea.

What is in cherries? Cherries have more calcium than phosphorus, much potassium, and very little sodium. The sour varieties have more vitamin A than the sweet kind, and all are relatively low in calories.

J.P. Seegmiller in his book, *Gout*, a 1967 publication, provides some additional information about this problem that so many suffer with:

"The enzyme, uricase, which is responsible for converting the sparingly soluble uric acid to much more soluble allantoin, is absent in all members of the widely divergent species—man, birds, and reptiles. As a result, uric acid rather than allantoin becomes the end product of purine metabolism. The remarkably inefficient renal [kidney] excretion of uric acid in man causes the human species to have the highest serum urate concentration and thereby makes the whole species in a sense heir to the gout." That is, if they eat a meat diet.

The problem is that man was not designed to eat meat products (meat and fish); vegetarians are very unlikely to have problems with uric acid build-up and gout.

When people eat meat products, they take an excess of purines into their bodies. There are eight types of purines which fall into three main categories. The body tries to break them down into a very acid substance known as uric acid. But the body also produces uric as a waste product of its own processes. When meat is eaten, far too much uric acid in the system is the

result. Greatly compounding this problem is the fact that uric acid is not easily disposed of by the kidneys. The result is a gradual build-up of an excessive amount of uric acid in the system. It is stored in various places, such as the joints and other body tissues.

The obvious solution is to stop eating meat. In this way the excessive acid deposits will stop forming. Cherries, in some way, are able to help eliminate some of that acid build-up.

46 - The Copenhagen Project

Several doctors at the University of Copenhagen teamed up together and administered zinc to arthritic patients. This important trace mineral was suspected to be significantly lacking in the patients with this problem. They later reported, in the *British Journal of Dermatology* for October 1980, that when they gave oral zinc to psoriatic arthritic patients—that "reduction of joint pains as well as increase of mobility and decrease in swelling of several joints was observed by the research physicians. This provides favorable evidence that zinc can be quite useful in reducing inflammation in arthritic sufferers.

On the other side of the world, Peter A. Simkin, M.D., at the division of rheumatology, University of Washington in Seattle, also gave oral zinc supplementation to arthritics—in this case to rheumatoid arthritis patients. He also obtained favorable results, and commented, "Zinc depletion is common in rheumatoid patients."

47 - The Shatin Research

Far, and down under, in Melbourne, Australia, a remarkable piece of testing was carried through to completion by Dr. R. Shatin. As later reported in the August 1, 1964, issue of the *Medical Journal of Australia*, thirty-one rheumatoid arthritis patients at the Alfred Hospital were placed on a very unusual dietetic program. It succeeded so well that twenty of the thirty patients had striking remissions of the disease. By the time that the research project was written up and reported, some of the remissions had continued for as long as eighteen months.

What was this highly unusual diet? It was a meatless, protein diet with vitamin supplements—from which all gluten had been totally eliminated.

Gluten is wheat protein. When water is added to wheat flour, the gluten separates and makes a sticky, rubbery substance. To many people, it also has the quality of being indigestible. But many people who eat wheat products do not always recognize what it is in the wheat that is bothering them. (In connection with this, we should also mention that the acidity of wheat is also a problem to many folk; wheat is the most acid of the grains.)

Some people are allergic to wheat or gluten products while others have no problem with either.

Does only wheat contain gluten? Rye flour also has gluten in it, to a lesser

extent.

It is known that there is an unusually large amount of gamma globulin in the blood serum of arthritics. Dr. Shatin's theory is that people allergic to gluten "produce the extra gamma globulin in order to fight off the offending wheat gluten in the intestines."

Very likely, there is far more to the arthritis problem than merely wheat gluten. But, at least, Dr. Shatin has given us clear evidence that gluten can, for some people at least, be part of the problem.

48 - The Abrams-Sandson Discovery

Reporting their research work in Annals of Rheumatic Disease, Vol. 23, 1964, Drs. E. Abrams and J. Sandson told of their findings, that the synovial fluid becomes thinner when serum levels of ascorbic acid (vitamin C) are high. The significance of this insight is important when one realizes that part of the arthritis problem is a thickening of the synovial fluid. But when a person is obtaining adequate vitamin C in his diet (or through additional supplementation by tablets), he is on a far safer path.

49 - The Tel Aviv Experiment

I. Machtey, M.D., and L. Quaknine, M.D., conducted a lengthy series of research studies, using vitamin E, at an Israeli hospital on the edge of Tel Aviv. In the course of their work at the Hasharon Hospital, they noted that some of their patients with osteoarthritis had what is known as the "restless leg syndrome." Checking into this more closely, they found that this set of symptoms (which produce a crawling, aching sensation deep within the muscles and bones of the legs) was related to a vitamin E deficiency.

Armed with this new information, they decided to give vitamin E to their arthritis patients. A variety of arthritic conditions (gonarthrisis, spondylosis, Heberden's nodes, and osteoarthritis) were tested with vitamin E therapy. The patients were divided into two groups (without their knowing about it); half received vitamin E and the other half placebos (tablets with nothing of value in them).

The end of the study found more than half of the vitamin E patients in better condition than earlier. Only one placebo patient felt better. Their research was later written up and published in the July 1978 issue of the *Journal of the American Geriatrics Society*.

50 - The McCormick Study

From up in Canada, additional information has been presented about the importance of nutrition in the control of arthritis. Dr. W.J. McCormick of Toronto gave massive doses of vitamin C to cases of "incipient arthritis" with very favorable results. In reporting on his work in the *Archives of Pediatrics* for April 1955, he stated that by "massive doses," he meant from one to ten grams of ascorbic acid daily. This is the same as 1,000 to 10,000 milligrams

of vitamin C per day.

51 - The Kaufman Clinical Studies

William Kaufman, M.D., a New England physician conducted a study on 455 arthritic patients. Determined by the severity of their condition, he administered to each one niacinamide in amounts varying from 400 mgs. to 2,250 mg. per day. This important B vitamin dilates blood vessels, thus increasing muscle strength and bringing more blood to organs, muscles, bones, and joints. In nearly every patient, Dr. Kaufman was able to measure improvement in the use of joints and recession of arthritis.

When taking this B vitamin, it should be kept in mind that it comes in two forms: niacin and niacinamide. Both are equally helpful; but one of these, niacinamide, does not cause a temporary flushing (reddening) of your face when you swallow it.

Dr. Kaufman developed elaborate measuring devices, so he could tell exactly how much improvement was gradually being made in the joint motions of the arms, legs, and wrists. In this way, he could actually measure improvement or the lack of it.

Kaufman did not confine himself to niacin; but, in most cases, he also gave quite large doses of vitamin C, thiamine (B_1) , pyridoxine (B_6) and riboflavin (B_2) . The amount of niacin he gave was in relation to the severity of the patient's condition and the improvement he was making; the better he was doing, the less niacin was given to him.

In some cases, dramatically rapid improvement was made; but, for most, it took more time. Yet taking nutritional supplements was not a difficult task.

In his extensive studies, Dr. Kaufman noticed several things that could cause complications. (1) Food allergies: Some patients had to avoid certain foods (chocolate, wheat, eggs, etc.), or they could not make improvement. (2), Repetitive work done every day in an uncomfortable or awkward position. Such employment was almost bound to create joint problems. Here are some examples that he discovered: holding a phone in an awkward position for long conversations; working with certain tools and machinery; very poor posture maintained for years; uncomfortable, tight-fitting, or high-heeled shoes; improperly clad limbs in colder weather (causing hand, wrist, elbow, or ankle-knee problems). (3) Sodium retention: Many people need to eat less salt in order to recover. (4) Psychosomatic arthritis: Some people are stresstype personalities. Things that do not bother others terribly irritate them. Still others live under seemingly unbearable conditions which apparently cannot be changed. These may develop joint symptoms, probably caused by psychosomatic blockage of nutrients, or, because of tension, a too-rapid utilization of nutrients.

On the average, Dr. Kaufman's patients had a "joint range index" of 6-12 points in the first month of nutrient therapy and, thereafter, a more gradual improvement of one-half to 1 point per month. But in order to do this, the

patient had to eat a nourishing diet without junk food, in addition to the vitamin supplements. Also he must not mechanically injure the afflicted joints.

Eventually, an "index range" of 96-100 (no joint dysfunction) was achieved. But in order to remain in such good shape, the patient must continue on maintenance doses of niacinamide and a good meatless diet thereafter.

Dr. Kaufman found that, if joints had earlier fused together (ankylosis), there could never be a full recovery.

He also noticed that his patients also improved in other ways: Taking the nutritional supplements frequently strengthened their stomachs, livers, muscles, etc.

Dr. Kaufman gave niacin in its niacinamide form, and he reported that he never found any harmful side effects from the large doses of this vitamin that he gave to his patients.

We would recommend to any researcher into arthritis, that he try to procure a copy of William Kaufman's out-of-print book. It is titled *The Common Form of Joint Dysfunction: Its Incidence and Treatment.* From the above description, the reader can see that Kaufman conducted a far broader investigation into arthritic cause than did most other researchers.

52 - The Bingham Therapy Program

Dr. Robert Bingham (an orthopedic doctor in Desert Hot Springs, California) has, over a period of years, worked out a definite program that he puts arthritis patients on.

"No person who is in good nutritional health develops rheumatoid arthritis or osteoarthritis," says Dr. Bingham. Having worked with hundreds of these sufferers, he has concluded that the average arthritic typically does not get either enough food or enough of the right kind of food. As a result, he tends to be tense, nervous, worried, overactive, and has both poor resistance to infection coupled with a history of infectious or chronic inflammatory diseases. Last but not least, he is frequently overweight.

At this point, you are probably wondering what Bingham does to help them. Here is a brief overview of many aspects of his program:

(1) Bed rest to begin with, 16 hours a day. (2) Increase water intake to 8 or more glasses a day. (3) Gradually reduce all drug medications to the barest minimum, without producing pain. (4) Reduce and slowly stop all corticosteroid medications. (5) All foods must be fresh, raw, natural, and (if necessary) blended. (6) A modernately high protein diet is provided. (7) Tobacco, alcohol, refined carbohydrates, and saturated fats are totally eliminated. (8) Vitamins, minerals, and enzymes are given. (9) 2,000 mg. of natural (not synthetic) vitamin C each day. (10) Special calcium supplements. Sometimes this is given in the form of raw milk (because he says that pasteurized milk lacks the "anti-stiffness factor" that raw milk has). But we would suggest that you can generally obtain all the calcium you need from

calcium gluconate, calcium lactate, or calcium citrate, obtainable in a healthfood store. (11) Overweight patients are urged to reduce.

Bingham also uses water therapy, such as hot packs and hot baths. He encourages his patients to study and learn more about medical and nutritional aspects of the disease. He says that this encourages them to stick by the program and make a more complete recovery.

The drugs which he takes them off of include the pain-relieving drugs, tranquilizers, and hypnotic drugs. He has noted that these tend to interfere with physical healing and metabolic normalization.

Bingham has studied deeply into the problem of arthritis; and, when he speaks, he speaks from knowledge: "Diseases of the bones and joints which are due to deficiencies in a single nutritional factor are many. They include scurvy, a vitamin C deficiency; osteoporosis, from lack of calcium and protein; neuropathy, caused by vitamin B complex deficiency; and degenerative joint disease are due to a combination of nutritional deficiencies."

In addition, Dr. Bingham believes a major part of the problem is caused by (1) the highly processed "civilized foods" we now have—such as soft drinks, cake, ice cream, and similar things; (2) a lack of several vitamins and minerals, particularly C, B complex, D, pantothenic acid, calcium, and iron; (3) an excess of sugar, starches, and fats in the diet; (4) a deficiency in good protein; (5) environmental dangers—such as pesticides, additives, smog, and even radioactive fallout; (6) and, lastly, a "rheumatoid personality" type of individual. But he maintains that good nutrition is more important than all else in the battle with arthritis.

53-62 - Nine More Research Studies

The files of researchers are seemingly overflowing with studies on nondrug, surgical methods of treating arthritic and rheumatic problems. But, for some strange reason, you rarely hear about them. Here are several of them:

The calcium content of the soft tissues increases by as much as 500 percent in rats that have been made deficient in vitamin E. The abnormal laying down of calcium in soft tissues is part of the arthritis problem in humans (S.R. Ames, J. Bio. Chem., Vol. 169, p. 503, 1957).

Individuals with arthritis frequently have a serious deficiency of the B vitamin, pantothenic acid (R.J. Williams, Biochemical Individuality, 1956).

Rats deficient in the B vitamin, pantothenic acid, have an abnormality similar to arthritis (J.J. Barboriak, et al., J. Nut., Vol. 63, p. 583, 1952).

Rats kept on a diet that is high in phosphorus and low in calcium have developed arthritis. The problem was eliminated when they were then given a diet containing twice as much calcium as phosphorus (A.G. Hogan, et al., J. Nut., Vol. 41, p. 203, 1950).

Human volunteers given a diet deficient in vitamin B_6 gradually developed sore joints that were similar to arthritis. When the vitamin was administered, the problem disappeared (R.E. Hodge, et al., Am. J. Clin. Nut., Vol.

11, p. 180, 1962).

Arthritis was induced by injections of formaldehyde, in rats, and injections of bacteria in vitamin-C-deficient guinea pigs. Both were forms of stress, and both caused arthritis. But if the rats were given very large amounts of vitamin E and the guinea pigs large doses of vitamin C, both were somehow protected from developing arthritis (H. Selwe, Brit. Med. J., Vol. 2, p. 1129, 1949 and B. Tuchweber, Am. J. Clin. Nut., Vol. 13, p. 328, 1963).

Twenty-five mg. of pantothenic acid were given daily to several arthritic patients as their only dietetic change. Some had a decrease or disappearance of pain and stiffness within two weeks (L. Eising, J. Bone Joint Surg., Vol. 452, p. 69, 1963).

When the amount of vitamin C in test animals is very low, an arthritic type condition results (A.F. Morgan, J. Bio. Chem., Vol. 195, p. 583, 1952).

When vitamin C is given to test animals in large quantities, it greatly delays the onset of arthritic-type symptoms; when pantothenic acid is given to them, these symptoms are completely prevented (J.J. Barboriak, et al., J. Nut. Vol. 63, p. 601, 1957).

Chapter Two

Twenty-Eight Folk Remedies

Here are over two dozen ways, used by people for years, to help remove arthritis and/or rheumatism:

ARTHRITIS TEA—Mix equal parts of the following herbs for this folk remedy:

Alder buckthorn bark / rue / black cohosh / columbo / angelica root (American) / valerian root / skullcap / yellow gentian root.

Steep 1 heaping teaspoon of this mixture in 1 cup of boiling hot water until it is lukewarm. Take 3 cups a day, a half cup at a time.

ARTHRITIS TEA COMPOUND—Mix in equal parts the following:

Sassafras / cascara sagrada / black cohosh / camomile / bearberry leaves.

Steep 1 to $1\frac{1}{2}$ teaspoon of this mixture in 1 cup of water, brought to a boil and then turned off until the tea is cold. Take 2 cups of this tea each day in mouthful quantities.

ARTHRITIS LINIMENT—Mix together equal amounts of wintergreen and yerba santa. Place part of this mixture in a pot with enough olive oil to cover it, and let it simmer for 30 to 45 minutes. Then strain it and, when cool, apply it to the surface of the affected parts.

ARTHRITIS POULTICE—Mix together 6 parts of mullein leaves, 3 parts lobelia, 9 parts slippery elm bark, and 1 part cayenne powder.

Combine 3 oz. of this mixture with boiling hot water, making a paste. Spread the paste on a cloth and apply it to swollen joints.

HERBS FOR ARTHRITIS—The following herbs are suggested in herbal books for the care of arthritis:

Black cohosh, pleurisy root, wintergreen, yellow dock, wild Oregon grape, cayenne, buckthorn bark, peppermint, white pine, poplar, quassia, sarsaparilla, skullcap, skunk cabbage, nettle, birch, bittersweet, blue cohosh, blue flag, lobelia, queen of the meadow, wild yam, wormwood, buckbean, Indian hemp, chickweed, comfrey, horseradish, juniper, black elder, buttercup, alfalfa, marsh tea, meadow saffron, sassafras, shave grass, black currant, black poplar, witch grass, yew. These are among a few of the many herbs

suggested for this condition.

HERBS FOR RHEUMATISM—All of the above herbs for arthritis, plus the following, are recommended for rheumatism:

Allspice, barberry, asparagus, borage, box, wood, celery, columbine, coriander, alpine cranberry, arum, bryony, apple, cowslip, dandelion, English walnut, henbane, horsemint, Indian turnip, kidney bean, laurel, pansy, prickly ash, rosemary, skunk cabbage, watercress, mountain holly, oat, wild clover.

THE NEVA JOHNSON HERBAL FORMULA—Neva Johnson, a student of herbal preparations, recommends the following combination of herbs for arthritis:

Black cohosh, licorice root, skullcap, and alfalfa.

THE PAAVO AIROLA HERBS—Paavo Airola, Ph.D., a well-known nutritionist, recommends the following herbs for arthritis:

Comfrey, alfalfa, parsley, black cohosh, chaparral, buckthorn bark, sassafras, peppermint, slippery elm, ragwort, burdock root.

ALFALFA—Alfalfa is used by some people as an aid in working with arthritis. For this purpose, some use the leaf while others use the seed; others eat it, others make tea of it, and still others just take alfalfa tablets daily.

Rich in vitamins, minerals, and other nutrients, alfalfa is considered by many to be something of "king" among the vegetation greens. The Arabs anciently recognized these qualities and named it "alfalfa," which means "father of plants." It will send roots down twenty feet or more into the ground and bring up minerals that are not available on the surface. Taken into the body, it is a very nourishing food.

ALFALFA SEED TEA—Take one ounce of alfalfa seed (untreated) and put it in an enamel or glass (not metal) pan with $1\frac{1}{4}$ pints of water. Then cook it, with the lid on, for a half hour. After it is cooked, strain it, squeezing or pressing the seeds dry. Save only the juice. Add honey to taste. Cool and put it in the refrigerator as soon as possible. Make up a batch each day for use in this way: Mix the juice 50-50 with water (or mix it to taste) and use it as a hot or cold tea. Drink 6 to 7 cups (or 4 to 5 glassfuls) a day. Try this for at least 2 to 3 weeks and see what it will do!

COMFREY POULTICES—So much has been written on the values of comfrey (whether or not it really has that much value we cannot say), that some individuals have tried it on arthritis. Here is the experience of one such individual:

"I went to a doctor and, after X-rays and examinations, was told that it was either arthritis or synovitis, and no treatment was recommended.

"I continued suffering with this wrist ailment for some ten months. Then some friends, who were knowledgeable about comfrey, suggested that I try comfrey poultices. Fortunately, we had a sizeable patch in our garden. Every

night, for two weeks, my husband helped me prepare the comfrey and put it on my wrist. We simply ground several leaves real fine, then spread this mixture on a cloth, sometimes adding water if it seemed too dry, and bound it around my wrist, covering it with plastic (to keep from staining the sheets), and taped it all together. In the morning, we would take it off. By the end of two weeks, the pain was gone and we discontinued the treatment.

"More than a year has passed since my wrist recovered and I have had no recurrence of the pain, nor have I had to use anymore comfrey poultices."

MAGNESIUM—It has been suggested by some nutritionists that supplementation of the trace mineral, magnesium, may help in the conquest of arthritis in the system.

The thinking behind this is that magnesium aids in metabolizing carbohydrates and amino acids, improves bone growth, and regulates body pH—all of which are significant. A deficiency of magnesium is known to lower the ability of the body to absorb and use calcium and phosphorus—and these are the two primary bone-building minerals.

Magnesium also helps synthesize certain factors contained in synovial fluid. This is important. In addition, magnesium inhibits the production of a strange enzyme, called hydraluronidase. Known as the "spreading factor," this substance has the ability to destroy synovial fluid and, consequently, the connective tissue itself.

If farm or experimental animals are given a diet that is inadequate in magnesium, the calcium they take into their bodies will begin to be laid down in the wrong place—in the soft tissues instead of onto the bones. If a proper amount of magnesium is given, this condition is corrected.

VEGETARIAN DIET—The recommended vegetarian diet, referred to above, is heavy with cooked and raw vegetables. This would include whatever greens are available at the time, plus other nourishing vegetables. Among the best are: celery, parsley, garlic, comfrey, endive, watercress, wheat grass, alfalfa, potatoes, and yams. Fresh alfalfa and alfalfa tablets are of special value.

Among the best fruits to be included in this vegetarian regime would be pineapples, bananas, sour cherries, and sour apples.

Of course, there are many other beneficial fruits and vegetables that you would want to include.

It is considered important that you avoid the following: meat, fish, fowl, cow's milk, cheese, all types of bread, sugar and salt. In place of salt, use sea kelp or dulce; instead of white sugar, use honey.

Later, if recovery is well along, some natural healing professionals recommend the addition of yogurt and homemade bread. Rice and millet are considered to be the best grains. Wheat is the poorest. (This is because its acidity and gluten content cause trouble for many people.) Some suggest that sunflower, sesame, and pumpkin seeds be used only in very limited quantities, if at all.

GOAT'S MILK—Some health professionals highly recommend the use of goat's milk for the elimination of arthritis. Certain arthritics believe that they have solved their problem by the use of a quart of goat's milk daily.

However, it should not be necessary to find a goat in order to deal with this painful condition. A careful vegetarian diet, without meat, fat, oil, salt, and wheat, may in many cases provide much needed help.

VEGETABLE JUICES—That which is called "vegetable juice therapy" is administered by a number of natural healing professionals. But these are generally given under close supervision and guidance. In some instances, repeated two- or three-day juice fasts are given, interspersed by a careful vegetarian diet. Sometimes this continues for 4 to 6 weeks.

Both raw juices and cooked vegetable broths are used. It is claimed that these dissolve the accumulation of deposits around the joints and elsewhere. "Green drink," also called "green juice," is a mixture of several raw vegetable juices, primarily vegetable greens, plus carrot, celery, and beet juice. The vegetable broths are made from similar vegetables, plus thick, white potato peelings.

BROMELAIN SUPPLEMENTATION—Bromelain is the enzyme in pineapple (and somewhat in banana also) that is such a powerful digestant. Certain professionals recommend that bromelain tablets (6-8 a day) be taken at mealtime as an aid in helping to reduce or eliminate the swelling and inflammation caused by rheumatoid arthritis.

It is likely that this beneficial action of bromelain would be caused by its ability to increase digestion in the stomach. In this way, much-needed vitamins and minerals would be better absorbed and utilized.

EXERCISE FOR ARTHRITIS—It has been found that the same exercise, which appears to bring pain to arthritic joints, can also eliminate that pain. But do exercise. The active use of painful arthritic joints is very important for yet another reason:

When a joint is not used over a period of several months or years, it tends to freeze or lock up; that is the worst possible end effect of the arthritic problem. For not only does the joint become immobilized, but the surrounding muscles begin to atrophy through a lack of use.

So it is extremely important that you begin an exercise program immediately if you are having problems with a joint. Whether there is little pain or much pain, you must keep exercising that joint or you will totally lose the use of it. Doggedly keep at it, a little at a time.

But fortunately, as we are discovering in this book, we do not merely have to live with damaged, painful joints. There are solutions to the problem.

LIFTING IT AWAY—While we are on this topic of exercise in the control of arthritis, let me tell you how my own father removed arthritis from his shoulder when he was in his sixties. For about eight years he had driven a municipal bus at night in chilly, damp San Francisco. He found it necessary to always keep his left window open to see clearly; and, for years, the cold

night air blew upon his left shoulder. By the time he retired, he had an arthritic problem in that shoulder, which was very burdensome. He was hardly able to sleep, because of the pain; one night, in an effort to momentarily get away from the pain, he got up and walked outside into the backyard. On the ground he spied a roundish stone about 12 inches across. The pain throbbed through his shoulder; suddenly he reached down and, seizing that rock, heaved it up as far above him as he could.

He later told me that the pain was so bad that he lifted the rock, to add to the pain and somehow vary its intensity.

But having done so, he found when he set it down—that the pain had receded! So, standing out there in the yard in the middle of the night, he picked up the rock and took it upstairs and put it beside his bed. He later showed it to me. From then on, whenever the pain came on, he would climb out of bed and pick up that rock and heave it as high as he could.

He said that, whereas before he could not lift his arm above his shoulder, now he could raise it high in the air. The pain was totally gone, and he felt stronger in his arm muscles than he had for years. With the help of that stone, he had no more problems with that shoulder for the remainder of his life. (His shoulder problem was probably bursitis, not arthritis as he thought.)

What made the difference? Frankly, the key factor was the new surge of blood into that painful area. And that is what makes the sleeping bags, and many other treatment patterns, so helpful; the healing, life-giving blood is brought to the afflicted part and restoration occurs.

But the best effects are produced when (1) exercise, (2) proper warmth at night, (3) a good nourishing diet, and (4) proper vitamin and mineral supplementation are combined.

HEATING UP THE HAND—Another method that some have used is to slip on a pair of wool gloves for about twenty minutes, when their hands ache at night. They heat up the hands and alleviate the problem.

About fifteen years ago, a friend of our family, at the time a schoolteacher in Oregon, told us of arthritic pains in her hands. She said that one day she was asked to accompany a music teacher on the piano for an entire day. Unused to such a strenuous workout, her hands ached that night. But she gave them no special attention; so the pain continued thereafter and developed into permanent arthritis.

If pains begin in your shoulder, hands, or joints, give the matter your immediate attention. Use hot packs or hot showers on the shoulders; give similar treatment to other joints. Put gloves on your hands or give them hot and cold applications in a couple pans of water. Change your diet. Add needed supplements.

If your nutrition is all right and your personality is not negative or bottled up, the pains should soon go away. Be sure and give special attention to drafts on your shoulder, arms, legs, knees, feet, sinuses at night while you

are sleeping in bed. Drafts, causing chilled shoulders or hands, can be a real source of problem to some.

SALTING OUT ARTHRITIS—J.I. Rodale told of a woman he met in St. Petersburg, Florida (back in the 1940s), whose arthritis left after she obeyed her physician's request to stop using all salt.

WATER THERAPY FOR ARTHRITIS—Bringing the blood to the afflicted part can greatly aid in alleviating pain and rebuilding damaged tissues and joints. And this is especially so when good nourishing food (that does not include meat, sugar, and highly processed foods) are eaten, to provide the best possible nutrients for the blood to carry to those tissues and joints.

When such a nourishing diet is eaten, the use of simple water treatments can definitely help in rejuvenating damaged and painful parts of the body. These simple hydrotherapy treatments would include hot and cold showers, taken every morning and evening; hot baths, steam baths, heat packs, mustard packs, paraffin baths, and similar measures. For more information on how to give simple water treatments, see the author's book, Water Therapy Manual, which is available from the publisher of the book you are now reading.

HOT BATHS FOR RHEUMATISM—It is well-known that hot baths relieve many kinds of pain. These simple water treatments loosen tight muscles, relieve aching joints when they have been worked too hard, and help relax the entire body after a hard day of activity. They also relieve the pain in rheumatic joints also.

There are three reasons why moist heat is so helpful: (1) It increases the elimination of waste products through the skin and kidneys. (2) It improves the circulation of the blood and other body fluids, as the heat expands the blood vessels. (3) A mechanical breaking down of adhesions and a softening of muscle and tissue thickening occurs.

ARTHRITIC PAIN AND HONEY—A teaspoon of honey at each meal will help relieve the pain of arthritis. It does this by increasing the blood calcium level and lowering the phosphorus level (Complete Book of Minerals for Health, p. 730). Of course, a far more efficient way to obtain additional calcium than phosphorus is by adding calcium gluconate, calcium lactate, or calcium citrate to the diet.

SESAME SEED—Seseme seed has a wider ratio of calcium to phosphorus (much calcium to little phosphorus) than any other regular food. This makes it an outstanding addition to the diet of those who seek to eliminate arthritis or rheumatism.

RAW POTATO JUICE—For centuries, folk medicine has made use of raw potato juice as a reportedly successful treatment for rheumatic and arthritic problems.

Take one medium-sized potato and wash it, but do not remove the skin. Then cut it into thin slices and put it in a large glass. Fill the glass with cold water and let it stand overnight. The next morning, drink the water while the

stomach is still empty (before breakfast).

For some folk, a simpler way to prepare this juice is by running the potato through an electric juicer. If this is done, make it fresh each time and then, upon arising, drink it diluted 50-50 with water.

The best part of the potato is just under the peel. Slice a raw potato through and you can see the white "potassium ring" just under the peel. Slice thick potato peelings, discard the centers, and add the thick peels to the vegetables you are cooking.

PHYSICAL PRESSURE—Some individuals have discovered that sleeping with their head on their hand or arm has been the primary causative agent in producing neuritis in the part laid on. They have found that stopping this sleeping habit has eliminated the difficulty entirely. A similar problem involves individuals with poor circulation who lay primarily on one shoulder through the night. Pains and apparent bursitis in the shoulder sometimes develop.

CHILLING DRAFTS—Some have found that problems of shoulder pains and neck stiffness are occasionally caused by drafts circulating through the triangle of space formed by the shoulder and the blankets. One individual we know solved the problem in a unique manner. Instead of closing down the window, he simply slipped a paper towel cardboard tube into the bedding near his thighs. In this way, the natural up-and-down heaving of the chest during breathing was offset by a slight draft near his pelvis instead of on his shoulder and neck.

Whatever the problem or its cause, hot and cold water to the afflicted area is also a definite help.

PARAFFIN BATH—The following treatment in alleviating pain in the hand is taken from the present author's book, *Water Therapy Manual*. But notice that this is a pain-relieving technique. It will not remove the arthritis! In order to do that, definite changes in the diet must be undertaken.

"This is a warm bath for an extremity (often an arthritic hand). It is especially helpful because of certain properties of paraffin, described just below.

"PARAFFIN AND HEAT—Paraffin is a waxy, white, tasteless, odorless substance that can be a real blessing in your home. One of the important properties of water is its high heat conduction. This means that it can quickly transfer heat to something else. But paraffin has a low heat conduction. This means that it can be used to apply heat for a longer period of time to a local area. Paraffin will hold heat longer than water, because it has a heat capacity of .62 as compared with 1.0 for water. Thus it is about half that of water. But its heat-retaining qualities are greatly increased by the fact that it solidifies only a few degrees above tolerable temperature. Therefore if you place your hand in paraffin just above the melting point, a solid layer, or glove, of paraffin quickly coats the skin and, just as quickly, becomes a temperature that is not too hot. All the rest of the paraffin in the bowl will

continue to be too hot for your hand; however, the hand will continue to feel nicely warm for quite sometime. This is due to the low heat conductivity of the paraffin and the absence of convection currents next to the skin. Also, the actual skin temperature can be hotter than otherwise possible without burning, pain, or any injury because the covering of the paraffin will not permit the coated skin to sweat. Paraffin does not lose heat by evaporation or by convection once it is hardened. Last but not least, it has a 'latent heat' of 35 calories, but water has no latent heat so near to body temperature.

"HOW IT CAN HELP YOU—The Paraffin Bath is used for painful arthritic-type joints in the arms or the legs. Most often it is used on the hand. It soothingly relieves pain as it greatly increases the blood circulation to the afflicted body part. Even the smallest blood vessels become dilated as the nourishing, healing blood courses through the painful extremity. In addition, the temperature of the surrounding areas are elevated, thus helping them to resist the disease.

"The Paraffin Bath (or Paraffin Pack, Dressing, and Wrap) can help in conditions of arthritis, gout, and sciatica. It is also helpful for stiff joints; tendon repair; sprains; strains; tenosynovitis; old burns; and skin grafts following fractures. —But do not use it if there are open sores or lesions on the area to be treated. Those with diabetes or any tendency to lessened skin sensibility must use it with caution.

"WHAT YOU WILL NEED—2-4 pounds of paraffin wax and 4 table-spoons of mineral oil. Double boiler. Bath towel. Piece of oiled silk. Thermometer.

"Paraffin wax which is used in household preserving can be used. It is best to add some mineral oil to it, so that the solid paraffin is less brittle and melts more easily. The added oil also helps the tissues to be softened, preparatory for later massage. Use 1 pint mineral oil to 5 pounds of paraffin."—Vance Ferrell, Water Therapy Manual, pp. 78-80.

Chapter Three

What about

Glucosamine and Chandroitin?

GLUCOSAMINE—This substance is found naturally in the body. It stimulates the formation and repair of articular cartilage. Over-the-counter supplements come from animal sources.

It is a natural sugar produced by the body and found in certain foods. It stimulates the production of glycosaminoglycans and proteoglycans, two essential factors in cartilage.

CHONDROITIN SULFATE—This is another natural substance found in the body. It prevents other body enzymes from degrading the building blocks of joint cartilage. The type sold in health-food stores and pharmacies is derived from animal products.

This substance reduces inflammation and assists the glucosamine in protecting against future cartilage degeneration.

ADVANTAGES AND DISADVANTAGES—Both glucosamine and chondroitin sulfate are chemical extracts; so, in this sense, they are not fully natural. Anytime man processes food, he manages to damage something.

Another problem is that both are derived from animal sources. Meat eating is a significant cause of our arthritic and rheumatic problems, so is it wise to eat substances taken from slaughterhouses?

Then there is the question of whether they actually work. Claims are made for both, and some help seems to occur at times. But there seem to be few instances of outstanding recoveries.

Lastly, there is the fact that taking a tablet to solve our sicknesses while not making the dietary, exercise, attitudinal, and other changes which are needed (discussed earlier in this book) is, frankly, a partial return to drugstore medicine.

There appear to be indications that liquid-grade glucosamine and chondroitin capsules may be more effective than dry tablets.

Timothy E. McAlindon, M.D., led a research team at Boston University School of Medicine, which combed through more than three decades of research studies. They found 37 studies of glucosamine and chondroitin sulfate for the treatment of osteoarthritis. The 37 studies (15 were published

between 1980 and 1998) were double-blind, randomized, placebo-controlled trials which lasted four weeks or more. Of the 15 studies, 6 involved glucosamine and 9 involved chondroitin.

It was determined that the overall effect for both chemicals was low to moderate: 0.44 for glucosamine and 0.78 for chondroitin sulfate.

So the jury is out on these two products. It is the belief of the present writer that we make a mistake when we take a pill, without making the changes which led to the arthritis or rheumatism in the first place.

BOSWELLIA SERRATA—This is a medium-sized branching tree which grows in the dry, mountainous regions of India. The purified compound obtained from the tree's gummy resin (a type of guggul) is used in India for the treatment of chronic inflammatory arthritis. India's Council for Scientific and Industrial Research undertook a series of studies to discover herbalbased products which could help rheumatic diseases, without any side effects. The research team concluded that this substance was superior to the standard anti-inflammatory drugs used for that purpose (ketoprofen and phenylbutazone).

The treatment of 450-750 mg of boswellic acids per day appeared effective in reducing pain, swollen joints, and morning stiffness. Grip strength and physical performance also improved. But the rheumatic condition was only alleviated, not eliminated.

YOGRAJ GUGGUL—This is an anti-arthritic herbal supplement, composed of an array of gugguls. ("Guggul" is the collective name for various gum resins extracted from trees.) The compound is used to treat osteoporosis, arthritis, rheumatism, and gout. It is said to be a strong antioxidant which stimulates the immune system's white blood cells. Like boswellia serrata and bitterin oil (below), yograj guggul provides relief; but it may not eliminate the arthritis and rheumatism.

BITTERIN OIL—This is made from the seeds of Bittermelon and is used to treat wounds, burns, joint pains, inflammation, and diabetic neuropathy in joint pains. It is a vascular dilator and is used to treat gout and other knee problems.

Chapter Four

Summarizing the Summaries

In this book you have read summaries of 60 nutritional and biochemical investigations, sets of experimental medications, and 28 folk remedies.

All of this information was gathered together in order to provide medical doctors with data they could use and to make available to researchers earlier successful experimentation in the fields of arthritis, rheumatism, and related areas so that they could extend this fruitful research still further.

We have tried to provide original sources, wherever possible, so that medical professionals and research specialists could more easily study these original research reports for themselves.

But, as a further aid in helping physicians and research scholars in their work, we are here providing a listing of all the factors dealt within this book:

VITAMINS—Niacin $[B_3]$ (usually given in the form of niacinamide, in order to avoid facial flushing). **Pantothenic acid. Pyridoxine** $[B_6]$. **Thiamine** $[B_1]$. **Para aminobensoic acid** [PABA]. **Vitamin** B_{12} [cobalamin]. **Folic acid** [folacin] (folic acid works closely with **cobalamin** $[B_{12}]$).

All of the vitamins in the above paragraph are in the B complex. It has been recognized, for sometime, that obtaining a good intake of all the B complex vitamins will help the body use the special ones that are being taken to fill special needs.

Other vitamins: Ascorbic acid [vitamin C). Ergosterol [vitamin D] (obtaining vitamin D from sunbathing is far better than using animal products (fish liver oils). Vitamin D from fish liver oils (halibut, cod, shark, etc.) are known to damage the heart muscle). Tocopherol [E) (for this purpose; alpha tocopherol is the most potent form, but some prefer using mixed tocopherols [alpha, beta, delta, and gamma]). Bioflavinoids [P] (the constituents of vitamin P are citrin, hesperidin, rutin, flavones, and flavonols).

MINERALS—Calcium (most easily obtained as calcium gluconate, calcium lactate, or calcium citrate); the calcium phosphorus intake balance in the diet should be 2 to 1: twice as much calcium as phosphorus). Iron. Three trace minerals are important: Iodine, Zinc, and Selenium (selenium)

works with vitamin E; less selenium is needed as more E is taken). Ideally, the best source of trace minerals is sea vegetation. **Nova Scotia dulse** or **Norwegian kelp**; California kelp is an inferior product).

DIGESTIVE ENZYMES—Some have recommended the use of **Betaine** hydrochloride acid and Glutamic acid HCL. Another helpful digestive enzyme is **Bromelain** (the powerful protein digestant found in pineapple).

IMPORTANT FOODS TO BE INCLUDED IN THE DIET—Greens (the greener the better), fruit and vegetables. Fruit juices (apple, orange, lemon, grape, etc.). Vegetable juices (carrot, celery, beet, cabbage, etc.). Vegetable broths. Honey. Cherries for gout.

OTHER DIETETIC AIDS—Herbal teas, alfalfa, alfalfa seed tea. If you are using milk, substitute goat's milk in place of cow's milk (see comments below about diary products). The two best oils are flaxseed oil and wheat germ oil (unless you are allergic to wheat). Histidine was a protein found to be very important.

FOODS TO AVOID AND NOT USE—Meat products (meat and fish), dairy products with cream, salt (sodium retention should be avoided), highly processed foods, white sugar products, personally allergenic foods (wheat, chocolate, egg; etc.), excess fats, alcohol, coffee, tobacco, fluoridated drinking water, foods of the nightshade family (genus: solanum) which cause you to have arthritic flare-ups: white potatoes (often the worst offender), green peppers, red peppers, tomatoes, and eggplant. Tobacco is also in the nightshade family). Wheat and wheat gluten may also be an allergenic problem. Do not eat meat fat, margarine, butter, or hydrogenated oils.

FACTORS TO PROVIDE WARMTH AND INCREASED BLOOD CIRCU-LATION—A better blood circulation, a balanced blood circulation, more healing blood to the afflicted parts—all these are very helpful. But it must be kept in mind that proper nutrition (vitamins, minerals, good food, and avoiding certain other foods) is also very important. The blood carries nutrition to the body; although it is important to improve blood circulation, we must also improve that which the blood takes to it. Here are some of these blood circulation factors:

Adequate heat when you are resting (by means of a sleeping bag, extra bottom blankets, etc.). Have a current of fresh air at all times, but avoid sitting or sleeping in drafts. Exercise for the body and the painful joint areas: This is crucial because the afflicted joints may fuse together and thereafter not be able to be used.

Hot packs, hot baths, steam baths, and hot and cold showers. Warm soda baths, mustard packs, and paraffin hand baths. For more information on the use of simple water treatments, see the author's book, Water Therapy Manual.

Cold mitten friction, dry brush massage, and salt glow are also helpful in providing a healthful stimulation to the skin, blood circulation, and the

entire circulation...

Regularity. The bowels must be kept open, if necessary with daily enemas.

OTHER FACTORS TO DO—Obtain ultraviolet light on the skin; it will be absorbed and taken to the liver, to be used in the body as vitamin D. Sunlight into the eyes will stimulate the pituitary and pineal glands, which will then stimulate all of the other endocrine glands in the body. But never look directly at the sun; ultraviolet light can enter the eyes even while sitting in the shade. But no glass, even filtered or tinted glass, or plastic must intervene. Do not overtan, lest painful and dangerous sunburn occur.

OTHER FACTORS TO AVOID—Reduce excess weight. Avoid repetitive and uncomfortable work that must be done daily. It has been recommended that, in connection with such a program, the use of corticosteroids be slowly terminated.

Consider the aspects in the "arthritis personality" which bring on psychosomatic or real arthritic conditions. Several aspects should be especially noted here: First, try to avoid an excess of stress in the daily life, but most especially guard your reaction toward it. Second, the reaction to life's problems should not be negative. Try to see the experiences of life in a positive way. This can be done. Others regularly do it; you can also. Third, there should not be a bottling up of feelings with no expression in one way or another. Discuss problems with others; but, above all, express them in prayer to God and give it all to Him! Trust in Him and begin a positive outlook on life. Fourth, start a new habit of thankfulness for all that life brings; this will drown out the negative feelings that bring grief, intensified pain, and sickness. Those who are the closest to God, through daily prayer and study of His Word, are the ones who are the most able to live such a life of thankfulness. Fifth, live to help others; stop thinking about yourself, your own feelings, and your own hurts. You will be amazed what the "prescription" in this paragraph can do for you.

OF SPECIAL NOTE—In carrying on forthcoming research and medication for arthritic and rheumatic-type conditions, it should be kept in mind that the majority of the past research and experimental medication in this field has been keyed to only a relatively few of the factors and nutrients listed above.

Some researchers used only niacin, calcium, or vitamin C, pantothenic acid, pyridoxine, thiamine, or histidine. Some focused only on iodine or zinc. Some gave their attention only to the avoidance of allergenic foods, solanaceous crops, or to fasting and fruit-vegetable juices. Some only dealt with improving the warmth of the bedding or giving water treatments.

Yet in every research activity that we have here documented, there were some very rapid recoveries, some slower, and some showing no effects.

What would be the result if we now stepped onto the research foundation, already so well-laid by others, and began to conduct more complete

dietetic, vitamin and mineral research programs, that included an avoidance of negative foods and other factors that had earlier become suspect?

This appears to be the great need: to bring together the findings of these various research studies into, what we might call, a totality program. —But do not imagine that it can be effectively done without a major change in the diet!

In concluding this book, we will mention that we chose not to include the research summaries that revealed the dangers of using aspirin and the various steroids (cortisone, ACTH, etc.). It seemed better to focus our attention on healing factors that did not have such attendant dangers. But please know that there are very real dangers in using those medically approved methods for the treatment of arthritic and rheumatic conditions.

This little book is sent out with the hope that it will provide a plateau for research and clinical specialists to view the past—and step more vigorously into a brighter future. There appear to be definite solutions to the arthritic-rheumatic problem that afflicts so many of our citizens—solutions that have been uncovered by the work and painstaking efforts of leading researchers over a span of many decades.

Chapter Five

Adding a Better Life

This book has provided you with one of the most complete collections of information on how to overcome arthritis that you can find in a small book anywhere. But getting a problem stopped is not the full solution; you also want to add a better way of life in its place.

This present chapter is going to tell you how there can be brought into your life a far deeper happiness than you may have ever experienced. The information below is just as solid and useful as that which you have already studied. You will want to read it carefully.

All about us we see abundant evidence of the love of God. It is shown in the beautiful things He has made and how carefully they have been adapted to supply the needs and happiness of all His earthly creatures. Nature teaches us that it is God who provides for us; and that, as we come to Him, He can give us that which we need in order to love and obey Him. Back in the beginning, man was perfectly happy, holy, and in harmony with God. There was no blight on nature, and man talked face to face with His Maker.

Then sin entered, as man, tempted by Satan, ate the forbidden fruit in the Garden of Eden. It may seem a little thing, but it was disobedience to the express will of God. Yet our heavenly Father continues to seek us. If you will but stop a moment and think about it, He has been trying to reach you for years.

The problem is that Satan tempts men to think that God is severe, harsh, and cruel. Yet this is not true. Your heavenly Father loves you with the deepest love. For years He has guarded you, though you did not know it.

It was to reveal His love to man that God sent His own Son into the world. Encouraging, healing, and helping people find a better life: This was the earthly life of Jesus—a life obedient to the will of His Father and continually revealing the character of God to mankind. "He that hath seen Me hath seen the Father," He said (John 14:9).

Love, mercy, and compassion were revealed in every act of His life, for His heart went out in tender sympathy to the children of men. He took man's nature that He might reach man's wants. The poorest, humblest, and most sinful were not afraid to come to Him. Even little children loved to be near Him.

His life was one of self-denial and thoughtful care for others; because every soul was precious in His eyes, He bowed with the tenderest regard to every member of the family of God. In all men He saw fallen souls for whom it was His mission to save.

Take a Bible and open to one of the four Gospels (Matthew, Mark, Luke, or John) and begin reading. There you will find the character of Christ revealed in His daily life. His purity and kindliness is the character of God. It is in the Bible that we find the principles of godliness, the pathway to heaven.

It was to redeem us that Jesus lived and suffered and was crucified. He became "a Man of Sorrows," that we might be made partakers of everlasting joy. God permitted His beloved Son to come from a world of indescribable glory—to this dark world blighted with sin—so that we could be delivered from sin and enabled, by His grace, to obey the laws of God.

As you begin reading in the Bible, behold Him in the wilderness, in Gethsemane, upon the cross. The spotless Son of God took upon Himself the burden of sin. He who had been one with God felt in His soul the awful separation that sin makes between God and man. This separation and the burden of sin broke His heart.

Yet this great sacrifice was not made in order to create in the Father's heart a love for man, so He would be willing to save us. No, no! "For God so loved the world, that He gave His only begotten Son." John 3:16. The Father loves us, not because of the great sacrifice—but He provided the sacrifice of His Son on Calvary because He loves us! Through Christ, God poured His love upon mankind. To Christ we can come and seek forgiveness of sin and enabling power to obey. And by remaining with Him, day by day, we can look forward to eternal life with Him in the glories of heaven.

Was it worth it for God to do this? Yes, it was well-worth it—even if only one person would have accepted the great salvation. Just now, though many others may refuse it, you can come to Him and receive forgiveness, peace with God, and strength to obey His Inspired Word, the Holy Scriptures.

Only Jesus could accomplish our redemption, but many do not realize why; for only One equal to the Law of God—the Ten Commandments—could die to meet its claims and enable man to obey it. Jesus is fully God and equal with the Father. He died so that you could live through eternal ages with Him. The Father loves Christ all the more because He did it, because the Father also loves you.

Beholding the depth of that love, men and women down through history have wept as they discovered it. Coming to God, they have found peace with Him as they had their sins forgiven, have put away their bad habits, and become servants of God. That love has enabled them, not only to live clean, honest lives but, to remain loyal to their God in the face of ridicule, persecution, and even death.

It is impossible for us, of ourselves, to escape from the pit of sin in which we are sunken. Our hearts are evil; and, without the help of God, we cannot change them. There must be a power from above to work inside of us and strengthen our resolves and our will. That power is Christ. His forgiv-

ing, enabling grace alone can awaken the lifeless faculties of the soul and attract them to God and god-like living. Only He can strengthen us to stop sinning. Yet only we can make the choice to come to Him day by day and let Him give us that strength.

This new life begins with the New Birth. Jesus said, "Except a man be born again, he cannot see the kingdom of God" (John 3:3). This means that unless he shall receive a new heart, new desires, purposes, and motives, all leading to a new life, a person cannot find peace with God, deliverance from sin, and eternal life.

It is not enough to see our condition or even the love of God; we must bow in agony of sorrow over our sins and how they cost the life of God's own Son. We must come to Jesus in heartfelt grief—and plead with Him for forgiveness, acceptance, and purity of heart.

Many resist the love of Christ and are lost. They are content with their own condition. But if we do not resist the drawing power of that love, we will be convicted of our sins—and will be drawn in love and sorrow, for the way we have treated Him, to the One who died and liveth again—that we might have eternal life. You who in heart long for something better than this world can give, recognize this longing as the voice of God to your soul. Ask Him to give you repentance, to reveal Christ, in all His love and purity, to you. It is as we behold Him that we see the sinfulness of our own hearts and come to Him in true repentance for sin and a turning away from it.

But do not make the mistake of many. If you see your sinfulness, do not wait to make yourself better before coming to Christ! Come to Him now, just as you are. In Him you will find the answer to all your problems. Begin walking the journey of life with Him. You will be continually astounded at the courage, comfort, and help that He can give you day by day. But do not delay in coming. Satan will tempt you to think that you need to wait a day or two; yet, during the delay, he will present all kinds of reasons why you should not give your life to Christ. The devil will hold out his trinkets to you; you know how it works. A little quick pleasure and back to the old misery afterward. But now you want to be done with all that. You want to start a better way of life, a life of clean living with God.

You are tired of your past life of sin and failure. You want peace with God and forgiveness of sin. You would rather serve God than live for yourself—and so you come, now, to Jesus. And you find that you have entered upon a life of the deepest happiness you have ever experienced. There is nothing on earth that can bring you the peace of heart that God can give you.

Do not imagine that you will not have problems. Satan will continue to bring them through circumstances, friends, and associates, just as he has done before. Yet you will find that you now have new help in coping with difficulties, definite guidance in meeting them, fresh strength in recognizing and resisting the approach of sin.

But let no one tell you that it is all right to disobey God. It is never right

and it is never safe. By faith, cling to Christ all through the day. The secret is in finding Him in the morning, in prayer and study of the Sacred Scriptures. And then in walking, hand in hand, with Him all through the day. The Bible says to "pray without ceasing." That is a habit worth developing. But, again, begin each day by coming anew to God, surrendering your life to Him, and dedicating yourself and all you have and are to Him.

Sometimes Satan will come and tell you that you are a great sinner—but tell him that Christ Jesus died to save sinners! Apart from Christ, you are lost; but clinging to His hand, moment by moment, you can make it safely along the path of life, strewn as it is with so many temptations.

We come to God with a genuine sorrow for sin, and this sincere repentance is followed by a reformation in the life. Many changes are made as we study God's Word and bring our lives into conformity to it. For in giving ourselves to God, we must necessarily give up all that would separate us from Him. But it is really no sacrifice to yield our plans, our habits, our desires, and our lives to Christ. Just think of the sacrifice that He made for you! And the only things that we have to give up are things that can hurt us. God does not require us to give up anything that it is for our best interest to retain. We do ourselves the greatest injury when we think and act contrary to the will of God. Following paths forbidden by Him can never bring joy or peace.

The important question is this: How am I to make the surrender of my life to God? You desire to give yourself to Him, but you are weak in moral power, in slavery to doubt, and controlled by the habits of your life of sin. Your promises and resolutions are like ropes of sand. You cannot control your thoughts, your impulses, your affections. The knowledge of your broken promises and forfeited pledges weakens your confidence in your own sincerity and causes you to feel that God cannot accept you. But you need not despair. What you need to understand is the true force of the will. This is the power of decision, the power of choice. It is the governing power in the nature of man. Everything depends on the right action of the will. God has given you this power of the will; you must use it. But you must realize that, without the help of God, you cannot use your will aright.

But you can choose to give your life, your affections, and your will to God. He will then work in you, to strengthen you to resist Satan's temptations.

He will enable you to overcome sin and come off conqueror, for He "is able to keep you from falling, and to present you faultless before the throne of His glory with exceeding joy" (Jude 24).

God will, by His Holy Spirit, work in you to will and to do according to His good pleasure (*Philippians 2:13*). Submitting to God and resisting sin in His strength will bring your whole nature under the control of His Spirit, and your affections will be centered upon Him, and your thoughts will be in harmony with Him. This is what you want for your life, is it not?

Desires for goodness and holiness are right as far as they go; but if you stop here, they will avail nothing. Many will be lost while hoping and desiring to be Christians. They do not come to the point of yielding the will to God. They do not now choose to be Christians.

Through the right exercise of the will, an entire change may be made in your life. By yielding up your will to Christ, you ally yourself with the power that is above all principalities and powers. You will have strength from above to hold you steadfast; and, through constant surrender to God, you will be enabled to live the new life, even the life of faith.

The New Birth is a dying to sin and a living to Christ. The Apostle Paul died anew every day. "I die daily," he said (1 Corinthians 15:31). Every morning he rededicated His life to God and died anew to sin.

The New Birth is experienced as you come to God. You cannot atone for your past sins; you cannot change your heart and make yourself holy. But God promises to do all this for you through Christ. You believe that promise. You confess your sins and give yourself to God. You will to serve Him. Just as surely as you do this, God will fulfill His Word to you. If you believe the promise—believe that you are forgiven and cleansed—God supplies the fact; you are made whole, just as Christ gave the paralytic power to walk when the man believed that he was healed. It is so if you believe it.

Do not wait to feel that you are made whole. But say, "I believe it; it is so, not because I feel it but because God has promised."

Henceforth you are not your own; you are bought with a price—the precious blood of Christ (1 Peter 1:18-19). Through this simple act of surrendering and believing, the Holy Spirit has begotten a new life in your heart. You are as a child born into the family of God, and He loves you as He loves His Son.

Now that you have given yourself to Jesus, do not draw back, do not take yourself away from Him, but day by day say, "I am Christ's, I have given myself to Him," and ask Him to give you His Spirit and keep you by His grace. As you first found Him, so live in Him.

Thousands fail because they do not believe that Jesus will pardon them personally, individually. They do not take God at His Word. But it is the privilege of all who comply with the conditions to know for themselves that pardon is freely extended for every sin.

Do not yield to doubt. Read the rich promises of Scripture and believe them. Memorize them; repeat them to yourself and others through the day. Do not doubt and tremble, but look up—for Jesus is making intercession for you in the Sanctuary in heaven. Resist doubt with thanksgiving and an active helping of others. Thank God every day for the gift of His dear Son. Come to Him continually, cling to Him, praise Him. Share all your sorrows and joys with Him. And obey Him.

Whom do we love the most? If we love Jesus above every earthly thing, He will have our sweetest thoughts, our warmest affections, and our best ener-

gies. We will desire to speak to Him and speak about Him to others. He will have become the center of our life.

When we are with Jesus, every burden becomes light, duty becomes a delight, and sacrifice a pleasure. We love to obey Him.

The Bible reveals God's laws of right-living for mankind. The Ten Commandments are so important that God wrote them with His own finger, so you and I could have them. You will find them in *Exodus 20:3-17*.

It is an error to trust in our own works for salvation, but the opposite and no less dangerous error is that belief in Christ releases men from keeping the law of God, that our works have nothing to do with our redemption.

Love must be the principle of action and the concern of the heart to obey the will of God because we love Him.

When we obey from the heart, because we love God, our obedience becomes the fruit of the New Birth. It is a service of love to our God. God writes His laws in the hearts of those who have experienced the New Birth (Hebrews 10:16); and that law, written in the heart, will change the whole life. Obedience to God is the true sign of discipleship.

If we will not obey Him, we are not really His. "This is the love of God, that we keep His commandments." "He that saith I know Him, and keepeth not His commandments is a liar, and the truth is not in him" (1 John 5:3; 2:4). Genuine faith in God does not release us from obedience to Him. The truth is that it is faith alone that can enable us to be partakers of the grace of Christ—and it is His grace that enables us to render Him genuine heartfelt obedience!

That so-called faith in Christ, which professes to release men from obeying God, is not real faith, but presumption. "I have kept My Father's commandments and abide in His love" is what Jesus said (John 15:10). And He is our example. We are to walk as He walked and follow in His steps (1 John 2:6; 1 Peter 2:21).

The condition of eternal life is just what it always has been—just what it was in the Garden of Eden before the Fall of our first parents—perfect obedience to the law of God. If eternal life were granted on any condition short of this, then the happiness of the whole universe would be imperiled. The way would be open for sin, with all its train of woe and misery, to be immortalized.

Christ died on Calvary in order to become our great High Priest in the Sanctuary in heaven. There He ministers to all who come unto God by Him. "We have such an High Priest, who is set on the right hand of the throne of the Majesty in the heavens." "Wherefore He is able also to save them to the uttermost that come unto God by Him, seeing He ever liveth to make intercession for them" (Hebrews 8:1; 7:25).

Christ wants to forgive you and enable you to obey the physical, moral, and health laws given in the Bible. He wants you to partake of the divine nature as you grasp the promises. For it is by faith in His promises that you

are enabled, by His Spirit, to render Him such perfect obedience. "Whereby are given unto us exceeding great and precious promises [of Scripture]; that by these ye might be partakers of the divine nature, having escaped the corruption that is in the world through lust" (2 Peter 1:4).

"Seeing then that we have a great High Priest, that is passed into the heavens, Jesus the Son of God, let us hold fast our profession. For we have not an High Priest which cannot be touched with the feeling of our infirmities, but was in all points tempted like as we are, yet without sin" (Hebrews 4:14-15). That is a powerful promise for you just now, as you seek to learn more about God's plan for your life. And look at this wonderful promise which goes with it:

"Let us therefore come boldly unto the throne of grace, that we may obtain mercy and find grace to help in time of need" (Hebrews 4:16).

For a few minutes, we have been looking into the depths of the rich enabling grace of Christ, given to forgive us and enable us to obey the Law of God. But now we want to understand more of that Law itself. How thankful we can be that everything God gives is perfect and for our good.

Here is the Moral Law of God, the Ten Commandments:

The First Commandment - "Thou shalt have no other gods before Me." Exodus 20:3. Only God is entitled to our supreme reverence and worship. Nothing else is to have first place in our affections or service. Anything else that lessens our love for and obedience to God—becomes a god more important to us than our heavenly Father.

The Second Commandment - "Thou shalt not make unto thee any graven image or any likeness of anything that is in heaven above or that is in the earth beneath or that is in the water under the earth: thou shalt not bow down thyself to them nor serve them" (Exodus 20:4-5). We are not to worship God by images or similitudes. Representing Him by material objects lowers our conception of God and can only result in the degradation of ourselves.

The Third Commandment - "Thou shalt not take the name of the Lord thy God in vain, for the Lord will not hold him guiltless that taketh His name in vain" (Exodus 20:7). This commandment forbids false legal oaths and common swearing, and it also forbids using His name in a light or careless manner. He is holy and reverend (Psalm 111:9), and His faithful children will ever keep this in mind. His person and name should be thought of and spoken of with reverence and solemnity.

The Fourth Commandment - "Remember the Sabbath day, to keep it holy. Six days shalt thou labor and do all thy work, but the seventh day is the Sabbath of the Lord thy God. In it thou shalt not do any work; thou, nor thy son, nor thy daughter, thy manservant, nor thy maidservant, nor thy cattle, nor thy stranger that is within thy gates. For in six days the Lord made heaven and earth, the sea, and all that in them is, and rested the seventh day. Wherefore, the Lord blessed the Sabbath day, and hallowed it." Exodus 20:8-11.

The importance of the Sabbath is here shown to date back to the Creation of the world, at which time God first gave the seventh-day Sabbath to mankind as a day set apart for divine worship. "And on the seventh day God ended His work which He had made; and He rested on the seventh day from all His work which He had made. And God blessed the seventh day, and sanctified it, because that in it He had rested from all His work which God created and made" (Genesis 2:2-3). After creating this world and everything in it in six days, our God set aside the seventh day as a day of rest. He rested on it, blessed it, and sanctified it; that is, set it apart for our worship of Him.

The Sabbath is a sign that we love Him, obey Him, and are sanctified by Him. It is a sign of His creatorship and our sanctification and redemption. The Bible Sabbath is a sign that God is our Creator (Exodus 31:17), that He is the Lord our God (Ezekiel 20:20), and that He is the One who alone can sanctify us (Exodus 31:13). It is the sign or seal of the law. The only true Sabbath is the Bible Sabbath—the one given us in the Bible, the one kept on the day of the week that God set aside for us as the Sabbath day.

This is the seventh day of the week, Saturday. Astronomers tell us that, throughout history, time has never been lost. Historians tells us that the weekly cycle can be traced back thousands of years. The languages of man attest to the fact that the seventh day is the true Sabbath. (More information on this is available free from this publisher: Write for it. Ask for the book by name: Beyond Pitcairn.)

But astounding evidence of which day is the true Sabbath is the Jewish people. Of all the ancient races of mankind, only the Jews remain a distinct people—in spite of the fact that they did not have a homeland for most of two thousand years. Through the Jews we can trace back to the Sabbath that Jesus (Luke 4:16), His disciples (Luke 23:56), and the apostles (Acts 13:14, 42; 16:13; 17:1-2) kept. Jesus said that, after His death, His followers must continue to keep the Sabbath (Matthew 24:20); and this they did (Luke 23:56, Acts 13:14, 42; 16:13; 17:1-2). But also, through the Jews, we can trace the weekly cycle and the true Sabbath all the way back to Moses, at which time Gad gave the Ten Commandments in written form.

There is no doubt as to which day is the true Sabbath, and there is no doubt that Gad wants us to keep it. Our Creator never did away with His Moral Law, and we should not try to do so either. It is true that the "shadow laws" (Hebrews 10:1) were abolished at the cross. But those were the laws of animal sacrifices in the earthly sanctuary. Type met antitype at the death of Christ on Calvary, and the statutes and ordinances of the ceremonial law were taken away at that time. However, the Moral Law, contained in the Ten Commandments, is to be reverently obeyed by us today. And we are to do it in the strength of Christ. By grace we are saved (delivered from sin), and by grace we are empowered to obey all that God has commanded in Holy Scripture.

What many do not understand is that "sin is the transgression of the law"

(1 John 3:4); and that, in order to be "saved from sin," we must be enabled to keep that law. And this can be done alone in the strength of Christ's enabling merits. Christ is our Righteousness: He alone is our Forgiver and our Enabler. Christ died to uphold the law and make it possible for you to obey it; He did not die, as some preach, in order to destroy the Moral Law! Christ did not die to destroy morality, but to guard and uphold it. He died to enable sinners to be forgiven and live clean, godly, obedient lives (for godly living is what the Ten Commandments is all about). He did not die to destroy right living—Ten Commandment living—and immortalize sin and take incorrigible sinners to heaven, there to defile it forever. Yet all that would be so if Christ died to do away with the Ten Commandments.

In the Sermon an the Mount, Jesus said, "Think not that I am came to destroy the law or the prophets. I am not came to destroy, but to fulfill. For verily I say unto you, Till heaven and earth pass, one jot or one tittle shall in no wise pass from the law, till all be fulfilled" (Matthew 5:17-18). The original Greek word for "fulfill" in that verse is pleroo, which means "to make full." It does not mean "to destroy or abolish." This same word is used in 1 John 1:14; John 15:11; 16:24; 2 John 12 in the sense of "bringing to the fullest measure." Jesus said that He was sending the Holy Spirit "that your joy may be full." He did not mean that it would be abolished. This same Greek root word is found in "fulfill ye My joy" (Philippians 2:2; John 17:13), "preach fully" (Colossians 1:25), and "obey fully" (2 Corinthians 10:6). Jesus concludes the above statement with a powerful warning not to disobey the Law of God: "Whosoever therefore shall break one of these least commandments, and shall teach men so, he shall be called the least in the kingdom of heaven; but whosoever shall do and teach them, the same shall be called great in the kingdom of heaven" (Matthew 5:19).

The truth of the matter is that the seventh-day Sabbath is the only weekly sacred day given in the Bible. It was kept all through Bible times and afterward for many centuries. But in the fourth century A.D., the first Sunday Law was enacted (A.D. 321), requiring the worship of God on Sunday, the first day of the week. Sunday sacredness began in Persia about 200 years before the time of Christ. Worshipers of the Persian god, Mithra, gave Sunday its name, "The venerable day of the Sun," and worshiped their god on that day. Because Mithra was the sun god, they worshiped him by gathering on Sunday morning, facing east—toward the sun—as they prayed. Very evangelistic, the Mithraites spread their faith all through the vast Roman Empire (Europe, the Near East, and North Africa). By the end of the third century A.D., the majority of the people had been won either to Mithraism or Christianity. Early in the fourth century, Constantine became emperor. Recognizing that the empire greatly needed strengthening, he counseled with the leaders of the Christian church at Rome—and, with them, developed the plan of uniting both religions into one—by having the people worship the God of the Christians, but do it on the sacred day of the Mithraites.

The plan of uniting the majority of the people into one religion succeeded

dramatically as a single State Church was formed. Now everyone could easily become a Christian, and it was good politics to do so. Within a century the Christian churches in the cities were corrupted. It was really paganism that conquered, and the persecution of Bible-obeying Christians began in earnest. For centuries, Sabbathkeepers were proscribed, hunted, and slain.

That, in brief, is where Sundaykeeping came from and why we have it today. Yet God had earlier predicted that this attempt would be made by the little horn power of Rome to challenge God's holy law: "And he shall speak great words against the most High, and shall wear out the saints of the most High, and think to change times and laws" (Daniel 7:25). In that one brief verse, we are warned of the amazing blasphemies, persecutions, martyrdoms, and efforts to change God's law—that would be attempted by this power. And time laws are specifically mentioned. Any Catholic catechism will tell you that it was the Roman Catholic Church which changed the seventh-day Sabbath to Sunday. And elsewhere in the catechism, which is the Catholic lesson book, you will learn that the second commandment was taken out (forbidding image worship), the fourth was changed (removing the "seventh-day" from the Sabbath Commandment), and the tenth was then split in two (making two "covet commandments"), in an effort to preserve the number ten.

God also predicted that people would arise who would repair the tornout place in the law by again keeping the Sabbath Commandment. Carefully read Isaiah 58:12-14. And it was predicted that God's faithful believers in the last days would keep God's law. The persecution of the true church by the apostate church during the Dark Ages was predicted in Revelation 12:13-16, and following that, in the last days, would live the remnant—or last part—of the true church who would be faithful to God: "And the dragon was wroth with the woman, and went to make war with the remnant of her seed, which keep the commandments of God, and have the testimony of Jesus Christ" (Revelation 12:17).

Revelation 14:12 provides additional identification of this final group of faithful believers, just before the end of time: "Here is the patience of the saints: here are they that keep the commandments of God, and the faith of Jesus." By faith in Jesus' enabling grace, they are enabled to obey the law of God. In the midst of a law-breaking generation, they will uphold obedience to God and will stand faithful to the Ten Commandments.

Revelation 22:14 describes the entrance of His people into the City of God: "Blessed are they that do His commandments, that they may have right to the tree of life, and enter in through the gates into the city." What a precious promise for those who now are ridiculed and derided for keeping God's commandments by faith in Christ.

But the future is bright for those who will stand loyal to God and His law—for that future is full of Jesus. Through eternal ages the people of God will worship Him on the Bible Sabbath: "For as the new heavens and the new earth, which I will make, shall remain before Me, saith the Lord, so shall your seed and your name remain. And it shall come to pass, that from one

new moon to another, and from one Sabbath to another, shall all flesh come to worship before Me, saith the Lord" (Isaiah 66:22-23).

We have considered the first four of the Ten Commandments. We will now look at the last six:

The Fifth Commandment - "Honor thy father and thy mother, that thy days may be long upon the land which the Lord thy God giveth thee" (Exodus 20:12). Parents are entitled to a degree of love and respect which is due to no other person. We are not to reject the rightful authority of our parents, and we are to give them love and tender care all through their lives, even to old age. We should also respect other authorities, as long as their rules do not conflict with the laws of God.

The Sixth Commandment - "Thou shalt not kill" (Exodus 20:13). All acts of injustice that shorten life; the spirit of hatred and revenge or the indulgence of any passion that leads to injurious acts toward others or causes us to even wish them harm is a violation of the sixth commandment. It also includes a selfish neglect of caring for the needy and suffering, and all self-indulgence and intemperance that injures the health of ourselves or others.

The Seventh Commandment - "Thou shalt not commit adultery" (Exodus 20:14). This commandment forbids not only impure actions, but also sensual thoughts and desires, and any practice which tends to excite them. Christ taught that the evil thought or look is as truly sin as is the unlawful action.

The Eighth Commandment - "Thou shalt not steal" (Exodus 20:15). This commandment forbids man stealing, slave dealing, and wars of conquest. It not only condemns theft and robbery, but demands strict integrity in the minutest details of life. It forbids overreaching in business and trade, and requires the payment of just debts or wages. No one is to advantage himself by the ignorance, weakness, or misfortune of another.

The Ninth Commandment - "Thou shalt not bear false witness against thy neighbor" (Exodus 20:16). Included here is false speaking: every attempt or purpose to deceive another person. Falsehood is not only the act of misleading; it is also the intention to deceive. This can be done by a glance of the eye, a motion of the hand, or an expression of the face. All intentional overstatement, and even stating facts in such a manner as to mislead, is falsehood." Also included is every effort to injure the reputation of another by misrepresentation, evil surmising, slander, tale bearing, or intentional suppression of the truth.

The Tenth Commandment - "Thou shalt not covet thy neighbor's house; thou shalt not covet thy neighbor's wife, nor his manservant, nor his maid-servant, nor his ox, nor his ass, nor anything that is thy neighbor's" (Exodus 20:17).

The tenth commandment strikes at the very root of all sins and prohibits the selfish desire, from which springs the sinful act. Covetousness lies at the

heart of many of the iniquities of mankind.

The old song says, "Grace, grace, God's grace; grace greater than all our sins." And how truly great is the grace of God; for it is powerful enough to enable us to overcome all our sins and live a new life in Christ Jesus, our Lord and Saviour. The law of God, written on our heart, means obedience to it in the whole life. And this is not only what we want; it is also God's plan for us. As we live noble, godly lives, we are prepared for heaven, for we have heaven in our hearts. Matthew 1:21 predicted the objective of Jesus' life: "She shall bring forth a son, and thou shalt call His name, Jesus, for He shall save His people from their sins. The word, "Jesus," means "deliverer." Jesus came to earth to deliver us—remove us from—our sins. He did not live and die to save us in our sins but, as the Bible says, from our sins.

The Lord would have all His children happy, peaceful, and obedient. As we live and work with Jesus in ministering to the needs of others, our own trials are forgotten. There is joy in the service of God; the Christian has no vain regrets and disappointments. There is an eternity of happiness in the life beyond; and, even in this life, we may have the comfort of Christ's presence. Every step in life may bring us closer to Jesus, may give us a deeper experience of His love, and may bring us one step nearer to our eternal home where everyone will be peaceful and happy. No more pain, no more sorrow; that is what is in store for us.

Then let us not cast away our confidence and our precious Bible-based faith. But with firmer assurance, let us recall to mind the many times our God has gone before us and protected and guided us in the way. Let us keep fresh in memory all the tender mercies He has shown us in our past. We still have further to walk before life's pilgrimage will close. But we can walk it with Jesus and rejoice at each step at the bright future in store for us in the land beyond.

We cannot only look forward to new perplexities, but we may look on what is past as well as what is to come, and say, "Hitherto hath the Lord helped us," and "as thy days, so shall thy strength be" (1 Samuel 7:12; Deuteronomy 33:25). The trial will not exceed the strength given to bear it. Then let us take up our duties and tasks where we find them, believing that whatever may come, God will be with us all the way to the end.

And by and by the gates of heaven will be thrown open to admit God's children, and they will "inherit the kingdom prepared" for them "from the foundation of the world" (Matthew 25:34). Then the redeemed will be welcomed to the home that Jesus has been preparing for them. There they will associate with those who, like themselves, have overcome sin in the strength of Christ and have formed pure, holy characters. Amid the glories of heaven, they stand with Jesus before the great white throne, sharing the dignities and privileges of heaven.

In view of such an inheritance, soon to be ours, what shall we say? You may be poor in this world's goods; you may be despised and hated—but you possess a wealth and dignity that the world can never know. For you have the

peace of God's presence with you now, and you look forward to an eternity in heaven serving Him.

God bless and keep you. Stand true to God to the end. I want to meet you on the other side. Remember: When things look dark, cry to Him in prayer. He will comfort and help. If you fall, run right back to Him. — vf

The above chapter included adapted material from Steps to Christ, Patriarchs and Prophets, and Great Controversy.