



At
the Sign of the
Pulsating Heart



FROM THE EXHIBIT OF

J. D. Searle & Co.
CHICAGO

AT A CENTURY OF PROGRESS

This booklet comes to you as a remembrance from the 1933 World's Fair Exhibit of G. D. Searle & Co., Chicago, an old pharmaceutical house, dedicated to the service of humanity. The manufacture of fine pharmaceuticals and medicines, which are to be used or prescribed by your physician when he takes care of you and your family, is a sacred trust. It calls for the utmost purity in ingredients, for unrelaxing watchfulness in manufacturing methods, for constant study and research in order to keep step with and contribute to the advancement of medical science. For almost a half century the products of the house of Searle have earned and been granted the confidence of the physicians of the world.

Howard Searle M.D.
President

Chicago, Illinois.
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As you approach the exhibit of G. D. Searle & Co., on the main rotunda of the Hall of Science Building at A Century of Progress, a replica of the human heart greets you. It is much larger than the average human heart; but otherwise it is a faithful reproduction of this marvelous machine within the human body. Let us stand before it a moment, and watch it. It pulsates, rhythmically, constantly, endlessly; it expands and contracts, expands and contracts—ceaselessly, without pause or rest.

So the human heart pulsates and beats within the body. Every other muscle, every other organ in the body, is given its rest periods so that it may replenish its strength and dispose of the waste products which have accumulated in its cells. The heart must go on! It cannot stop. Even the shortest pause is fatal. Its function is the most important of all bodily functions. And heart disease is the grim reaper's greatest weapon of attack—more people die each year of heart disease than from any other cause.

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G. D. Searle & Co., through its research division, has been privileged to contribute materially to the means which your doctor has at his command to relieve certain diseases of the heart. The first section of this booklet is devoted to the story of their relief. The section following describes, just as our exhibit pictures, another ailment which only too frequently interferes with man's ability to live his life to the full: Varicose Veins and Hemorrhoids.

Here too the research division of G. D. Searle & Co. has been able to contribute to the advancement of medical science, by putting at your doctor's command the means of dependable, painless, non-surgical relief.



Another Milestone in the Conquest of Diseases of the Heart

Generally speaking, the sufferer from heart disease does not know that he has become so afflicted; there is no warning signal from Nature in the form of pain. Diseases of the heart are not accompanied by pain, except in one group which we will discuss here: the diseases in which the walls of the heart become afflicted. To gain a little understanding of these, let us first consider the heart itself.

The human heart is a four-chambered muscular bag which lies in the cavity of the chest, between the two lungs. It is a cone-shaped organ, with the base looking upward, toward the head, while its apex points downward, toward the left. It is a muscular organ, and its efficiency depends entirely upon keeping its muscle fit to do the work required of it. Its sole function is to contract and expand, contract and expand, 60 to 80 times per minute, twenty-four hours per day, three hundred and sixty-five days per year, and all the years of one's life. Not only must it do so under normal conditions, but it must possess enough reserve power to meet the emergency requirements of sudden, and at times tremendous strains.

Just as all other muscles of the body, so the heart muscle derives its nourishment and the replenishment of its strength from the blood

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fed to it through its arteries. When the walls of these arteries become hardened and inelastic, or when clot formation sets in within them, when the channel through which the blood flows in these arteries becomes narrowed, the heart muscle does not receive a sufficient amount of blood to carry on its activity, and serious diseases may develop. These are coronary sclerosis (hardening of the arteries of the heart muscle), coronary thrombosis (clot formation within these arteries), and angina pectoris (a disease similar to these others, and at times associated with them).

These are the heart conditions in which pain occurs. They are marked by sudden attacks of an excruciating, agonizing nature. The pain is overwhelming and intolerable. In its more severe forms it is so devastating that the sufferer ceases to fear death, but prays that death may come to his relief.

The most important of these conditions—for our purpose here—is angina pectoris. The accepted scientific thought of today is that its attacks are caused by a localized disturbance in the blood circulation within the heart muscle. Inefficient blood supply renders the muscle more susceptible to fatigue and, when exhausted by physical or mental exertion, an attack of pain results. While these attacks are most frequently brought on by

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unusual exertion, in more advanced cases they may be caused by walking, riding, driving, coughing, even by eating. Anger, grief, or extreme pleasure may be the cause in others.

The onset is usually quite sudden. In mild cases, there may be little more than a feeling of peculiar uneasiness in the chest. But more often than not, the pain is excruciating. The sufferer is inarticulate—the pain is so overwhelming. Whatever may have been his position at the onset of the attack, this position he will maintain. He stands, lies or sits without moving, transfixed in his agony, rarely uttering even a moan of pain. His skin takes on a greyish hue, he breaks out in cold perspiration, and his eyes transmit a mute, despairing appeal. Gradually his expression changes to one of increasing anxiety and, finally, to one of stark terror. The agony is so great that death would be embraced as a welcome release. The attack may last for but a few minutes or, when not relieved, for many hours.

The severity of the disease differs with the individual afflicted. Some patients endure innumerable, severe attacks over long periods of time, while others succumb to the first one, though it may not seem so severe.

But as serious a disease as angina pectoris is, the outlook is not hopeless for the patient

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suffering from it. The most important point is immediate attention from your family physician. He will determine for you the proper mode of living, so that exciting causes are avoided as much as possible. And medical science has put at his command effective means of relief, amongst which AMINO-PHYLLIN, a product of G. D. Searle & Co., has gained noteworthy prominence. In your doctor's efficient hands it will relieve the pain of a present attack, and tend to lessen the frequency and severity of such attacks as do occur or, at times, ward them off entirely.

Most important of all—do not procrastinate! The attack of angina pectoris can hardly be mistaken for anything else. When it occurs, though it lasts for only two or three minutes, present yourself to your physician as soon as possible. Place yourself into his hands completely, and follow his advice implicitly. It may add years of useful, happy living to your span.



The Non-Surgical Relief of Varicose Veins and Hemorrhoids

If you were able to place a tiny ship into the bloodstream, at the point where it leaves the central pressure pump of the circulatory system, the heart, and let the stream carry it on its course through the body, you would be amazed at the speed with which it would return to its starting point. Approximately 42 seconds are all that is needed for the round trip of the blood through the body. In this short space of time the blood is pumped by the heart, through the arteries, into every organ, every nook and cranny of the body, diffused into threadlike capillary vessels, from these gathered into the veins, and through the veins returned to the heart.

On its return flow from the organs located above the heart, the blood is aided by gravity. On its return from the organs below the heart, it must overcome the force of gravity. To insure its proper return, and prevent backflow, the veins in the extremities are provided with valves which permit the flow of blood toward the heart, but prevent its flow in the opposite direction.

The return flow of the blood to the heart is prompted by three factors:

1. The suction action of the heart beat, and the contraction and expansion of the chest in breathing.

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2. The push and pressure of the blood as it comes from the capillaries into the veins.
3. The external pressure brought to bear upon the veins by muscular action.

When the valves in the veins of the legs are inefficient or faulty, as is frequently the case from birth (congenitally); when circulation is hampered as is sometimes the case through the wearing of tight circular garters; and when the third factor of venous circulation, muscular action, is reduced to a minimum, as in individuals who stand for long hours at their work, such as motormen, elevator operators, etc., varicose veins may result.

Varicose means swollen, dilated. A varicosity is a dilated vein which becomes stretched, swollen, knot-like, and tortuous in its course. It offers a distinct impediment to the circulation. Even on slight exertion this circulatory disturbance produces fatigue and aching pains in the afflicted member (most often a leg). At times the varicosity becomes so large that it holds a sufficient blood supply to increase the weight of the leg to uttermost discomfort. In other cases the dilatation may be so tight and tense, and the overlying skin so thin, that the vein may burst spontaneously, or from minor accidental causes such as bumping against furniture,

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causing a hemorrhage which may be quite terrifying, though ordinarily not dangerous.

Frequently varicose veins cause large, stubborn ulcers which show no tendency to heal unless the cause—the varicose vein—is removed.

Like most other functional disturbances, varicose veins are apt to grow worse, and become more painful when neglected. Extreme and complicated cases may result in complete disability and invalidism for life, while under proper care and treatment, instituted early enough, they might be cleared up, and the person so afflicted might again be enabled to carry on a useful, active existence.

Until comparatively recent years, the only remedy available for varicose veins was surgery: an operation, removing the vein which had become varicosed. But surgery did not always prove successful. In a fairly large percentage of cases it did not result in the cure hoped for. And it always meant going to a hospital, undergoing complete anesthesia, the shock of the operation, the cost of hospital service, and the loss of two weeks or more of earning capacity.

As early as the year 1853, the desire of the medical profession to find a better, safer meth-

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od of treating varicose veins, led to trials with an injection treatment. Various chemical substances were injected into varicose veins for the purpose of prompting cell growth within it, so that it would be closed for the distance over which it had been varicosed, and the return flow of the blood diverted to the other veins of the limb.

From its very beginning these trials were attended by a certain measure of success, which pointed the way toward a type of treatment which would be more dependable in its results, which would not incapacitate the patient, and which would be so much lower in cost that it would be of definite advantage from an economic standpoint.

A great deal of study and research was devoted to this method, in practically every civilized country on the globe. This reached its climax under the tremendous impulse which scientific research received during the second and third decade of the present century, and resulted in the discovery of several chemical substances which proved excellent for the purpose, the obliterative treatment of varicosities. Foremost amongst these, and one of the latest developments, is Sodium Morrhuate, a product of G. D. Searle & Co., which has found almost universal acceptance among the medical profession as the ideal means for

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the treatment of varicose veins. It is an oily substance, derived from cod liver oil.

Note the advantages which Sodium Morrhuate (Searle) provides:

The treatment is administered in the doctor's office. There is no need of going to a hospital, of undergoing an operation, of losing weeks and possibly months of earning power.

The treatment is done in "stages," not more than two injections per week. Even the severest case clears up in three or four weeks.

The treatment does not incapacitate the patient. After the injection he goes about his business, as usual.

The method is practically painless, hence need not be feared by the patient. After two or three treatments the discomfort and aching pains, which usually attend varicosities, begin to disappear.

The treatment is dependable. Under proper supervision by your doctor, after the course of injections is completed, a return of the varicosities is easily prevented. Compare this with the surgical method of former days, when a return of the varicose condition could only mean another operation.

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The treatment is simple—it calls for no special equipment; your family physician will administer it in his office.

Compared with the cost of surgery, with hospital expenses, operating room fees, the cost of anesthesia, special nursing, and the loss of earnings due to hospitalization, the obliterative treatment of varicose veins is rather inexpensive. It is within the reach of everyone.

But here, too, procrastination should be avoided. If it happens to be your lot to be burdened with varicose veins, or if a member of your family is so afflicted, nothing can be gained by delay—it may only aggravate the condition and lead to complications.

HEMORRHOIDS

Hemorrhoids or "piles," as they are commonly called, are varicosities of the veins located in the anal canal and the lower rectum. Structurally they are similar to the varicosities of the leg. But the pressure exerted upon them at stool, and the passing of hard stools themselves, frequently lead to bleeding and to complications.

The treatment of hemorrhoids has always been surgical, and results, as a rule, have been excellent. But modern medical science strives

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to save the patient disability from work, the shock which always goes with an operation, and to avoid hospitalization whenever possible. This has been accomplished to an almost unbelievable degree with hemorrhoids, through the obliterative treatment.

Here too the injections are given in the doctor's office. There is practically no pain, no disability. A few minutes after the treatment the patient leaves the doctor's office, returns to his occupation, and goes about his affairs.

With hemorrhoids especially the advantages of Sodium Morrhuate (Searle) are of real value. In the earlier days of the obliterative method, barely three or four years ago, the injections often resulted in severe pain. With Sodium Morrhuate (Searle) this is virtually eliminated, not only because of its own chemical composition, but also because a local anesthetic, Benzyl Alcohol, is incorporated in its solution.

In the hands of your family physician the obliterative treatment of varicose veins and hemorrhoids constitutes dependable relief from painful, burdensome, and disabling conditions. And for G. D. Searle & Co. it is a source of justified pride, to have been privileged to be the first American pharmaceutical house to provide him with Sodium Morrhuate, the ideal substance for this treatment.



G.D. Searle & Co.

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