

# The Expectant Mother – Part 1 of 4 - Pregnancy

## The Mother and Her Child

By William S. Sadler, M.D., Lena K. Sadler, M.D.

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**Written sometime between 1923 & 1930**

**About the Author:** Dr. William S. Sadler M.D. was a well-known American psychiatrist and college teacher in the school of medicine at the University of Chicago. For over sixty years he practiced his profession in Chicago, thirty-three years being associated in practice with his wife, Dr Lena Kellogg Sadler. The doctors were pioneers in the research on the mysterious *Urantia Papers*.

There can be no grander, more noble, or higher calling for a healthy, sound-minded woman than to become the mother of children. She may be the cola borer of the business man, the overworked housewife of the tiller of the soil, the colleague of the professional man, or the wife of the leisure man of wealth; nevertheless, in every normal woman in every station of life there lurks the conscious or sub-conscious maternal instinct. Sooner or later the mother-soul yearns and cries out for the touch of baby fingers, and for that maternal joy that comes to a woman when she clasps to her breast the precious form of her own babe.

### **Motherhood the Highest Calling**

Motherhood is by far woman's highest and noble profession. Science, art, and careers dwindle into insignificance when we attempt to compare them with motherhood. And to attain this high profession, to reach this manifest "goal of destiny," women are seeking everywhere to obtain the best information, and the highest instruction regarding "mother craft," "babyhood," and "child culture."

In an Indiana town not long ago, at the close of a lecture, a small, intellectual-appearing mother came forward, and, tenderly placing her tiny and emaciated infant in my arms, said: "O Doctor! can you help me feed my helpless babe? I'm sure it is going to die. Nothing seems to help it. My father is the banker in this town. I graduated from high school and he sent me to Ann Arbor, and there I toiled untiringly for four years and obtained my degree of B. A. I have gone as far as I could - spent thousands of dollars of my unselfish father's money - but I find myself totally ignorant of my own child's necessities. I cannot even provide her food. O Doctor! can't something be done for young women to prepare them for motherhood?"

### **Mother craft Preparation**

The time will come when our high and normal schools will provide adequate courses for the preparation of the young woman for her highest profession, motherhood. This young mother, who had reached the goal of Bachelor of Arts, found to her sorrow that she was entirely deficient in her education and training regarding the duties and responsibilities of a mother. In every school of the higher branches of education that train young women in their late teens there should be a chair of mother craft, providing practical lectures on baby hygiene, dress, bathing, and the general care of

infants, and giving instruction in the rudiments of simple bottle-feeding, together with the caloric values of milk, gruels, and other ingredients which enter into the preparation of a baby's food.

Young women would most enthusiastically enroll for such classes, and as years passed and marriage came and children to the home, imagine the gratitude that would flood the souls of the young mothers who were fortunate enough to have attended schools where the chairs of motherhood prepared them for these new duties and responsibilities.

### **Early Medical Supervision**

Just as soon as it is known that a baby is coming into the home, the expectant mother should engage the best doctor she can afford. She should make frequent calls at his office and intelligently carry out the instruction concerning water drinking, exercise, diet, etc. Twenty-four hour specimens of urine should be frequently saved and taken to the physician for examination.

In these days the blood-pressure is closely observed, together with approaching headaches and other evidences of possible kidney complications. The early recognition of these dangers is accompanied by the immediate employment of appropriate sweating procedures and other measures designed to promote the elimination of body poisons. Therefore science is able effectively to stay the progress of the high blood-pressure of former days, and which was so often followed by eclampsia - azotemic poisoning.

In these days of careful urine analysis, expertly administered anesthetics, and up-to-date hospital confinements, the average intelligent woman may enter into pregnancy quite free from the old-time fears, whose only rewards were grief and cankering care. All fear of childbirth and all dread of maternal duties and sacrifices do not in the least lessen the necessary unpleasantness associated with normal labor. It lies in the choice of every expectant mother to journey through the months of pregnancy with dissatisfaction and resentment or with joy and serenity. "The child will be born and laid in your arms to be fed, cared for, and reared, whether you weep or smile through the months of waiting."

### **The Resentful Mother**

A little woman came into our office the day of this writing, saying: "Doctor, I'm just as mad as I can be; I don't want to be pregnant, I just hate the idea." As I smiled upon this girl-wife of nineteen, I drew from my desk a sheet of paper and slowly wrote down these words for the head of a column: "Got a mad on," and for the head of another, "Got a glad on;" and then we quickly set to work carefully to tabulate all the results that having a "mad on" would bring. We found to her dismay that its harvest would be sadness of the heart, husband unhappy, work unbearable, while all church duties as well as social functions would be sadly marred. Then, just as carefully, we tabulated the benefits that would follow having a "glad on."

Her face broke into a smile; she laughed, and as she left the office she assured me that she would accept Nature's decree, make the best of her lot, and therefore wisely align herself with the normal life demands of old Mother Nature. This view of her experience, she came to see, would bring the greatest amount of happiness to both herself and husband. She left me, declaring that she was just "wild for a baby;" and there is still echoing in my ears her parting words: "I'm leaving you, Oh, such a happy girl! and I'm going home to Harold a happy and contented expectant mother."

There often enters on the exit of a discontented and resentful expectant mother, a woman, very much alone in the world - perhaps a bachelor maid or a barren wife, who, as she sits in the office, bitterly weeps and wails over her state of loneliness or sterility; and so we are led to realize that discontentment is the lot of many women; and we are sometimes led to regret that ours is not the power to take from her that have and give to her that have not.

**Early Signs of Pregnancy:** Among the first questions an expectant mother asks is: "What are early signs of pregnancy?" The answer briefly is:

1. Cessation of menstruation. 2. Changes in the breast. 3. Morning sickness. 4. Disturbances in urination.

Menstruation may be interrupted by other causes than pregnancy, but the missing of the second or third periods usually indicates pregnancy. Accompanying the cessation of menstruation, changes in the breast occur. Sensation in the breasts akin to those which usually accompany menstruation are manifested at this time in connection with the unusual sensations of stinging, prickling, etc. Fully one-half of our patients do not suffer with "morning sickness;" however, it is the general consensus of opinion that "morning sickness" is one of the early signs of pregnancy, and these attacks consist of all gradations - from slight dizziness to the most severe vomiting. It is an unpleasant experience, but in passing through it we may be glad in the thought that "it too, will pass."

Because of the pressure exerted by the growing uterus upon the bladder, disturbances in urination often appear, but as the uterus continues to grow and lifts itself up and away from the bladder these symptoms disappear.

Chief of the later signs of pregnancy are "quickening" or fetal movements. The movements are very much like the "fluttering of a young birding." They usually are felt by the expectant mother between the seventeenth and eighteenth weeks. This sign, together with the noting of the fetal heartbeat at the seventh month, constitute the positive signs of pregnancy.

### **Probable Date of Delivery**

And now our expectant mother desires to know when to expect the little stranger. From countless observations of childbirth under all conditions and in many countries, the pregnant period is found to cover about thirty-nine weeks, or two hundred and seventy-three days. There are a number of ways or methods of computing this time. Many physicians count back three months and add seven days to the first day of the last menstruation. For instance, if the last menstruation were December 2 to 6, then, to find the probable day of delivery, we count back three months to September 2, and then add seven days. This gives us September 9, as the probable date of delivery. The real date of delivery may come any time within the week of which this calculated date is the center.

As a rule, ten days to two weeks preceding the day of delivery, the uterus "settles" down into the pelvis, the waist line becomes more comfortable, and the breathing is much easier.

On the accompanying page, may be found a table for computing the probable day of labor, prepared in accordance with the plan just described.

## Story of the Unborn Child : Fertilization The Mother and Her Child

By William S. Sadler, M.D., Lena K. Sadler, M.D.  
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To every physician in every community, sooner or later in his experience there come thoughtless women making requests that we even hesitate to write about. Their excuses for the crime which they seek to have the physician join them in committing, range all the way from "I don't want to go to the trouble," to "Doctor, I've got seven children now, and I can't even educate and dress them properly;" or, maybe, "I nearly lost my life with the last one."

### Embryological Ignorance

One little woman came to us the other day from the suburbs, and honestly, frankly, related this story:

"We've been married just six months, I have continued my stenographic work to add the sixty-five dollars to our monthly income. Doctor, we must meet our monthly payments on the home, I must continue to work, or we should utterly fail. I am perfectly willing a baby should come to us two years from now, but, doctor, I just can't allow this one to go on, you must help me just this once. Why doctor, there can't be much form or life there, it's only three months now, or will be next week, and you know it's nothing but a mass of jelly."

She had talked with a "confidential friend" in her neighborhood, had been told that she "could do it herself," but fearing trouble or infection, had come to the conclusion she had better go to a "clean, reputable physician," to have the abortion performed.

This is not the place to narrate the experiences of the unfortunate victims of habitual criminal abortion, but we would like to impress upon the reader some realization of the untimely deaths, the awful suffering, and the life-long remorse and sorrow of the poor, misguided women who listen to the criminal advice of neighborhood "busybodies." The infections, the invalidism, the sterility that so often follow in the wake of these practices, are well known to all medical people.

### The Stream of Life

And so after the patient's last statement, "It's nothing but a mass of jelly," we began the simple but wonderfully beautiful story of the development of the "child mothered." Just as all vegetables, fruits, nuts, flowers, and grains come from seeds sown into fertile soil, and just as these seeds receive nourishment from the soil, rain, and sunshine, so all our world of brothers and sisters, of fathers and mothers, came from tiny human seeds, and in their turn received nourishment from the peculiarly adapted stream of life, which flows in the maternal veins for the nourishment and up building of the unborn embryo.

Every little girl and boy baby that comes into the world, has stored within its body, in a wonderfully organized capsule, a part of the ancestral stream of life that unceasingly has flowed down through the centuries from father to son and from mother to daughter. This "germ plasma" is a divine gift to be held in trust and carefully guarded from the odium of taint, to be handed down to the sons and

daughters of the next generation. Any young man who grasps the thought that he possesses a portion of the stream of life, that he holds it in sacred trust for posterity, cannot fail to be impressed with a sense of solemn responsibility so to order his life as to be able to transmit this biologic trust to succeeding generations free from taint and disease.

### **The Process of Fertilization**

Just as within the body of "Mother Morning Glory" may be found the ovary or seed bed, so there are two wonderfully organized bodies about the size of large almonds found in the lower part of the female abdomen on either side of the uterus, and connected to it by two sensitive tubes. There ripens in one of these bodies each month a human baby-seed, which finds its way to the uterus through the little fallopian tube and is apparently lost in the debris of cells and mucus which, with the accompanying hemorrhage go to make up the menstrual flow. This continues from puberty to menopause, each gland alternating ripening its ovum, only to lose it in the periodical phenomenon of menstruation, which is seldom interrupted save by that still more wonderful phenomenon of conception.

At the time of conception, countless numbers of male germ-cells (sperms) are lost - only one out of the multitude of these perfectly formed sperms made up of the mosaics of hereditary depressors, determiners, and suppressors that so subtly dictate and determine the characteristics and qualifications of the on-coming individual - I repeat, only one of these wonderful sperms finds the waiting ovum. In this search for the ovum, the sperm propels itself forward by means of its tail - for the male sperm in general appearance very much resembles the little pollywog of the rain barrel.

The fateful meeting of the sperm and the ovum takes place usually in the upper end of one of the fallopian tubes. It is a wonderful occasion. The wide-awake, vibrating lifelike sperm plunges head first and bodily into the ovum. The tail, which has propelled this bundle of life through the many wanderings of its long and perilous journey, now no longer needed, drops off and is lost and forgotten. This union of the male and female gender cells is called "fertilization."

There immediately follows the most complete blending of the two germ cells - one from the father and one from the mother - each with its peculiar individual, family, racial, and national characteristics. Here the combined determiners determine the color of the eyes, the characteristics of the hair, the texture of the skin, its color, the size of the body, the stability of the nervous system, the size of the brain, etc., while the suppressors do a similar work in the modification of this or that family or racial characteristic.

## **Unborn Child : The First Weeks of Life**

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### **The First Weeks of Life**

The fertilized ovum remains in the tube for about one week, when it slowly makes its way down into the uterus, all the while rapidly undergoing segmentation or division. It does not grow much in size during this first week, but divides and subdivides first, into two parts, then four, then eight, then

sixteen and so on, until we have a peculiar little body made up of many equally divided parts, and known as the "Mulberry Mass". The blending of the sperm and ovum has been perfect, the division of the original body multitudinous.

While this division of the united gender cells is progressing, a wonderful change is also taking place in the inside lining of the uterus. Instead of the usual thin lining, it has greatly thickened and has become highly sensitized, and as the ovum enters the uterus from the fallopian tube, this sensitized lining catches it and holds it in its folds - actually covers it with itself - holding the precious mass much as the cocoon, you have so often seen fastened to the side of a plant or leaf, holds its treasure of life.

Just as soon as the new uterine home is found the baby heart begins to make its appearance, as also do many other rudimentary parts. By the end of the third week, our round mass has flattened and curved and elongated, and the nervous system and brain begin to develop, while the primitive ears begin to appear. At this time, the alimentary canal presents itself as one straight tube which is a trifle larger at the head end. And it is interesting to note that at this early date, even the arms and legs are beginning to bud and push out from the body.

### **Later Embryonic Development**

In the fourth and fifth weeks, the lungs and the pancreas may be found, the heart develops, the nervous system has taken on more definite form, and several of the larger blood-vessels are appearing.

By the eighth week, by the most wonderful and complicated processes of overlapping, pushing out, indentation, enfolding, budding, pressing, and curving, the majority of the important structures are formed - the eyes, ears, nose, hands, feet, abdominal organs, and numerous glands. therefore, at the end of two months, almost every structure and organ necessary to life is present in a rudimentary state.

### **At the End of Three Months**

By the close of the third month, witness the work of creation! From the blending of the two germ cells there has come forth a beautifully formed body. True, it is but three and one half inches in length, but it is nevertheless a perfect body. About this time, the gender may be determined. The eyes, nose, ears, chin, arms and legs and even the fingers and toes may all be clearly distinguished.

A "jelly mass" at three months? No, by no means! No! Life and form and features are all there. It really has a face, whose features may easily be delineated.

In all my experience, I have yet to find the woman who wished to continue in her wicked and criminal intent after she had listened to this story of the creative development of the first three months of her "child mothered."

During the next four months, which take us to the close of the seventh, rapid growth and farther development take place to the extent, that, should birth occur at that time, life may continue under proper conditions.

## **Last Weeks of Pregnancy**

Everything is now nearing completion - only awaiting further growth, development, and strength - except some of the bone development, which takes place during the remaining two months. Growth is rapid, strength is doubled, and as the two hundred and seventy-three days draw to a close, everything has been completed. It has all taken place according to the laws of creation in an infinite way and with clock-like precision.

With the developmental growth of the product of conception, the uterus or room that had been particularly prepared for the "big reception" of the second week, has also grown to great dimensions. It fills almost the entire abdomen and as a result of the pressure against the diaphragm the breathing is somewhat embarrassed.

The door of this "room" has been closed by a special mechanism, while, in the fullness of time, Mother Nature begins the delicate work of opening the door, through whose portals passes out into the world the completed babe.

The authors feel that this discussion of, and protest against, abortions, *should be* accompanied by an appropriate consideration of the control of pregnancy. We are never going to eliminate the abortion curse of present-day civilization by merely preaching against it - warnings and denouncements alone will not suffice to remove the stain. Notwithstanding our feelings and convictions in this respect, we are also well aware of the fact that public sentiment is not now sufficiently ripe to welcome such a full and frank discussion of the subject of the prevention of conception as the authors would feel called upon to present; we are equally cognizant of the fact that existing postal regulations and other Federal laws are of such a character (at least capable of such interpretation) as possibly to render even the scientific and dignified consideration of such subjects entirely out of question.

## **Newborns - Birthmarks and Prenatal Influence : Hereditary The Mother and Her Child**

By William S. Sadler, M.D., Lena K. Sadler, M.D.  
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In the preceding chapter we learned that when the two germ cells came together, there occurred a complete blending of two separate and distinct hereditary lines, reaching from the present away back into the dim and distant past. By the union of these two ancestral strains a new personality is formed, a new individual is created, with its own peculiar characteristics.

### **Hereditary Traits**

Probably none of the laboriously acquired accomplishments of the present generation can be directly - and as such - handed down to our children. What we are to be and what we will do in this world was largely determined by the laws of heredity by the time we were well started on our development experience during the third or fourth week of our prenatal existence, as outlined in a former chapter.

It is now generally accepted in scientific circles that acquired characteristics are not transmissible. Someone has aptly stated this truth by saying that "wooden heads are inherited, but wooden legs are not." This does not by any means imply that we do not have power and ability to fashion our careers and carve out our own destiny, within the possible bounds of our hereditary endowment and environmental surroundings.

Heredity does determine our "capital stock," but our own efforts and acts determine the interest and increase which we may derive from our natural endowment. From the moment conception takes place - the very instant when the two gender cells meet and blend - then and there "the gates of heredity are forever closed." From that time on we are dealing with the problems of nutrition, development, education, and environment; therefore, so-called prenatal influence can have nothing whatever to do with heredity.

A father may have acquired great talent as a physician or a surgeon, in fact he may hold the chair of surgery in a medical college, but each of his children come into the world without the slightest knowledge of the subject, and, as far as direct and immediate heredity is concerned, will have to work just about as hard to master the subject as will the same average class of children whose parents were not surgeons. This must not be taken to mean that certain abilities and tendencies are not inheritable - for they are; but they are inherited *through* the parents - and not *from* them - directly. These transmitted characteristics are largely "stock" traits, and usually have long been present in the "ancestral strain."

### **Maternal Impressions**

A mother may sing and pray all through the nine months of expectancy, or she may weep and scold, or even curse. In neither case can she influence the spiritual or moral tendencies of her child and cause it, through supposed prenatal influence, to be born with criminal tendencies or to grow up a pious lad or become a devout minister. These tendencies and characteristics are all largely determined by the "depressors," "suppressors," and "determiners" which were present in the two microscopic and mosaic germ cells which united to start the embryo at the time of conception.

The child is destined to be born, endowed, and equipped with the mental, nervous, and physical powers which his line has fallen heir to all through the past ages. Down through the ages education, religion, environment, and other special influences have no doubt played a small part in influencing and determining hereditary characteristics; just as environment in the ages past changed the foot of the evolving horse from a flat, "cushiony" foot with many toes (much needed in the soft bog of his earlier existence) into the "hoof foot" of later days, when harder soil and necessity for greater fleetness, assisted by some sort of "selection" and "survival," conspired to give us the foot of our modern horse, and this story is all plainly and serially told in the fossil and other remains found in our own hemisphere. It would appear that many, many generations of education and environment are required to influence markedly the established and settled train of heredity regarding any particular element or characteristic in any particular line or lines of hereditary tendencies.

### **Eugenic Superstition**

There is probably more misinformation in the minds of the people on the subject of "maternal impressions" and "birthmarks" than any other scientific or medical subject. The popular belief that, if a pregnant woman should see an ugly sight or pass through some terrifying experience, in some

mysterious way her unborn child would be "marked," deformed, or in some way show some blemish at birth, is a time-honored and ancient belief.

Such unscientific and unwarranted teaching has been handed down from mother to daughter through the ages, while the poor, misguided souls of expectant women have suffered untold remorse, heaped blame upon themselves, lived lives literally cursed with fear and dread - veritable slaves to superstition and bondage - all because of the simple fact that a certain percentage of all children born in this world have sustained some sort of an injury or "embryological accident" during the first days of fetal existence. For instance, take the common birthmark of a patch of reddened skin on the face, brow, or neck. As soon as the baby is born, the worried mother asks in anxious tones: "Doctor, is it all right, is it perfect, has it got any birthmarks?"

On being told that the baby has a round, red patch on its left brow, the ever-ready statement of the mother comes forth: "Yes, I knew I'd mark it, I was picking berries one day about three months ago, and I ate and ate, until I suddenly remembered I might mark my baby, and before I knew what I was doing, I touched my brow and I just knew I had marked my baby." Do you know, reader, that that birthmark was present fully four months before she passed through that experience in the berry patch? And yet so worried and apprehensive has been the pregnant mother, that, although she can never successfully predict the "birthmarks" and blemishes of her child, nevertheless when these defects are disclosed at birth she is unfailingly able immediately to recall some extraordinary experience which she has carefully stored away in her memory and which, to her mind, most fully explains and accounts for the defect.

Is it much wonder that in the very early days of embryonic existence, during the hours of delicate cell division, indentation, out pushing, elongation, and sliding of young cells - is it much wonder, I repeat - that there occur a few malformations, blemishes, or other accidents which persist as "birthmarks?"

## **Newborns - Causes of Birthmarks The Mother and Her Child**

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There are many factors which may enter into the production of birth-blemishes, deformities, monstrosities, etc. These influences are all governed by certain definite laws of cause and effect. A pre-existent systemic disease in the father, or a coexistent disorder in the mother, may be a leading factor. A mechanical injury, such as a sudden fall, a blow, or a kick, or certain kinds of prolonged pressure, not to mention restrictions and contractions of the maternal bony structures, may all possibly contribute something to these prenatal miscarriages of growth and development. Maternal or prenatal embryonic infections could bring about many sorts of birthmarks and malformations. These defects might also be caused by certain types of severe inflammatory disorders in the uterus during the early days of pregnancy.

The same factors that produce the accidents of embryology resulting in malformations or monstrosities in the human family, are also operative in the case of our lesser brethren of the animal kingdom, for monstrosities and birth-defects are very common among the lower animals, notwithstanding the fact that the animal mother probably does not "believe in birthmarks."

"It is a striking fact that during the nineteenth century, the embryologists, those who have scientifically investigated the causes of monstrosities and fetal morbid states, have almost without exception, rejected the theory of maternal impressions." Scientists and physicians are coming to recognize the fact that fears and frights do not in any way act as causes in the production of monstrosities and deformities. Let us seek forever to liberate all womankind from the common and harassing fear and the definite dread and worry that, because they failed to control themselves at the instant of some terrifying sight or experience, they were directly responsible for the misfortune of their abnormal offspring.

It should be remembered that there exists no direct connection whatsoever between the nervous system of the unborn child and the nervous system of the mother. The only physiological or embryological relationship is of a nutritional order, and even that is indirect and remote.

### **Role of the Placenta**

By the end of the third month, the "cocoon" attachment described in chapter two has disappeared; the fetus is slowly pushed away from the uterus which has so snugly held it for more than eleven weeks; while upon the exact site of its previous attachment the thickened uterine membrane undergoes a very interesting and important change - definite blood vessels begin to form - which begin indirectly to form contact with the maternal vessels, and therefore it is that the placenta, or "after birth" is formed; and then, by means of the umbilical cord, nourishment from the mother's blood-stream is carried to the growing and rapidly developing child.

In exchange for the nourishing stream of life-giving fluid by which growth and development take place, the embryo gives off its poisonous excretions which are carried back to the placenta, from which they are absorbed into the vein circulation of the mother; so, while the mother does, through the process of nutrition, influence growth and development in the embryo, she is wholly unable to produce specific changes and such definite developmental errors as birthmarks and other deformities.

Just as truly as it would be impossible so to frighten a setting hen as to "mark" or otherwise influence the form or character of the chicks which would ultimately come forth from the eggs in her nest, it is just as truly impossible to frighten the pregnant mother and thereby influence the final developmental product of the human egg which is so securely tucked away in its uterine nest; for, when conception has occurred, the human embryo is just as truly an egg - fashioned and formed - as is the larger and shell-contained embryo of the chick which lies in the nest of the setting hen.

And so we are compelled to recognize the fact that there is little more danger to the unborn child when the mother is frightened than when the father is scared. The one contributes as much as the other to the general character of the child, while neither is to blame for development errors and defects.

### **Suggestion and Heredity**

Certain fears are suggested to children. For twenty years I lived under the delusion that I was terribly afraid of snakes - more so than any other human being; for I was told when a mere child that I had been "marked with the fear of snakes," that just two months before I saw the peep of day, my esteemed mother had been terrified by a snake. Everywhere I went, I announced to

sympathizing and often mischievous friends, that "I was marked with the fear of snakes and must never be frightened with them." It is needless to add in passing, that I was teased and frightened all through my girlhood days. I was a veritable slave to the bondage of snake-fear. Everywhere I went I looked for my dreaded foe, expecting to sit on one, step on one, or to have one drop into my lap from the roof.

The day of deliverance came after marriage, when in a supreme effort to deliver me from the shackles of fear, the good man of the house tenderly, but firmly, maneuvered a morning walk so that it halted in front of a large plate-glass window of the Snake Drug Store in San Francisco. Just back of this plate glass, and within eighteen inches of my very nose, were fifty-seven varieties of the reptiles, big and small, streaked and checkered, quiet and active. After much remonstrance and waiting, I came-to - gazed at the markings, beautiful in their exactness - while slowly the change of mind took place. Faith took the place of fear, calmness subdued panic, and I was wondrously delivered from the veritable bondage of a score of years. And so it is that the mother suffers and then the child suffers, often a living death, because of the superstition "I'm marked," while there is ever present the fear or dread that "something is going to happen, because I'm different from all other individuals - because 'I'm marked!'"

## **The Hygiene of Pregnancy : Planning, Clothing The Mother and Her Child**

By William S. Sadler, M.D., Lena K. Sadler, M.D.  
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As soon as a woman discovers that she is pregnant, she should sit down and quietly think out the plan for the nine months of expectancy.

The cessation of the menses may come as a surprise to her, and for a while she is more or less confused; she must go over the whole situation and adjust future plans to fit in with this new and all important fact. From a large experience with maternity cases, I have reached the conclusion that the larger percentage of pregnancies do come as a surprise, and in many instances a complete change of program must be painstakingly thought out. This is especially true of the business woman, the professional woman, the busy club woman, or the active society woman.

### **Early Planning**

Let me say to the woman who is pregnant for the first time, the experiences of the pregnant state should cause you no fear, worry, or anxiety. Giving birth to a baby is a perfectly natural, normal procedure, and if you are in reasonable health - if your physician tells you are a fairly normal woman - then you can dismiss further thought of danger and go on your way rejoicing. For thousands of years maternity has been women's exclusive profession and no doubt will continue to be many ages hence.

By far the most important and the first thing to do is carefully to select the best physician your means will allow, and place yourself under his or her care. Your doctor will help you to plan wisely and intelligently during the waiting time, for physicians have learned from experience that the better care the pregnant woman receives, the easier will be her labor, and the more speedy and uneventful the recovery.

And now, we proceed to take up one by one the particular phases of the hygiene of pregnancy which touch the comfort, convenience, and health of both the mother and her unborn child.

### **The Clothing**

At all times and under all circumstances the pregnant woman's clothing should be comfortable, suitable for the occasion, artistic, and practical. And to be therefore beautifully clothed is to be as inconspicuous as is possible. Of all times, occasions, and conditions, that of pregnancy demands modesty in color, simplicity in style, together with long straight lines. For the "going out" dress, select soft shades of brown, blue, wine, or dark green. Let the house dresses be simple, easy to launder, without constricting waist bands, of the one-piece type, in every way suitable for the work at hand. Under this outer dress, a princess petticoat should cover a specially designed maternity corset (if any corset at all be worn), to which is attached side hose-supporters. A support for the breasts may be worn if desired, it should be loose enough to allow perfect freedom in breathing.

The union suit may be of linen, silk, or cotton, with the weight suitable for the season. Stockings and shoes should be of a comfortable type, straight last, low or medium heel and at least as wide as the foot. There are two or three shoes on the market that are particularly good, whose arches are flexible, heels comfortable, straight last, and whose soles look very much like the lines of the foot unclothed. This style is particularly good during the maternity days. Painful feet are a great strain upon the general nervous system. Who of us has not seen women with strained, tense faces hobbling about in high-heeled, narrow-toed shoes? And if we followed them we would not only see tenseness and strain in the features of the face, but could hear outbursts of temper on the least provocation. Aching feet produce general irritability. If ease of body and calmness of spirit is desired, wear shoes that are comfortable, and the surprising part of it is that many of them are very good looking.

Toward the end of pregnancy often the feet swell, in which instance larger shoes should be worn in connection with the bandaging of the ankles and legs.

During the latter days of expectancy an abdominal supporter may be worn advantageously. Much of the backache and heaviness in the pelvis is entirely relieved by the supporting of the pendulous abdomen with a well-fitted binder. An ordinary piece of linen crash may be fitted properly by the taking in of darts at the lower front edge; or elastic linen, or silk binder may be secured; in fact, any binder that properly supports the abdomen will answer the purpose.

It should be within the means of every pregnant woman to have a neat, artistic out-door costume, for social, club and church occasions. For no reason but illness should an expectant mother shut herself up in doors.

True men and true women hold the very highest esteem for the maternal state, and the opinion of all others matters not; so joyfully go forth to the club, social event, concert, or church; and to do this, you must have a well-designed, artistic dress. The material does not matter much, but the shade and style are important.

## Pregnancy Hygiene : Diet, Water Drinking The Mother and Her Child

By William S. Sadler, M.D., Lena K. Sadler, M.D.

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### Diet

There are certain laws which govern the diet at all times; for instance, the man who digs ditches requires more of a certain element of food and more food in general, than does the man who digs thoughts out of his brain. The growing child requires somewhat different elements of food than does an adult. In other words, "The diet should suit the times, occasions, occupations, etc."

In the case of the expectant mother it should be remembered that the child gains nine-tenths of its weight after the fifth month of pregnancy, and it is, therefore, not necessary that a woman should begin "eating for two" until after the fifth month. And since it is also true that the baby doubles its weight during the last eight weeks of pregnancy, it follows that then is the time when special attention must be given to the quantity as well as the quality of "mothers' food."

During the first five months, if the urine and blood-pressure are normal, the "lady in waiting" should follow her usual dietetic tastes and fancies so long as they do not distress or cause indigestion. Because of the additional work of the elimination of the fetal wastes, much water, seven or eight glasses a day, should be taken; while one of the meals - should there be three - may well consist largely of fruit. All of the vegetables may be enjoyed; salads with simple dressings and fruits may be eaten liberally. Of the breads, bran, whole wheat, or graham are far better for the bowels than the finer grain breads, or the hot breads.

Something fresh - raw - should be taken every day, such as lettuce, radishes, cabbage salad, and fresh fruits.

If the prospective mother is accustomed to the liberal use of meat, providing the blood-pressure and urine are normal, she may be able to indulge in meat once a day. Many physicians believe that the maternal woman should eat meat rather sparingly - from once a day to once or twice or three times a week.

Of the desserts, gelatin, junket, ice cream, sponge cake, and fruit are far better than the rich pastries, which never fail even in health to encourage indigestion and heart burn. The fruitages are all good. Candies and other sweets may be eaten in moderation. Alcohol should be avoided. Tea and coffee should be restricted, and in many cases abandoned. For many, two meals and a lunch of fruit or broth are better than three full meals. There is a continual and increased accumulation of waste matter which must be thrown off by the lungs, kidneys bowels, and skin; so that clogging of one channel of elimination makes more work for one or more of the other eliminative organs.

Sometimes the craving for food is excessive, and the desire to nibble between meals is quite troublesome. These unusual feelings should be controlled or ignored. A glass of orangeade will sometimes satisfy this unnatural craving. Save your appetite for meal time - for a good appetite means good digestion - all things equal. The woman who habitually eats between meals is the sluggish, constipated individual who needs to acquire self-control and learn self-mastery.

## Water Drinking

Water is the circulating medium of the body, from which the digestive secretions are formed, and by which the food is assimilated and distributed to individual cells. And, finally, water is the agent for dissolving and removing waste products from the body through the various eliminating organs. We literally live, think, and have our being, as it were, under water. The tiny cell creatures of our bodies, from the humble bile workers of the liver to the exalted thinking cells of the brain, all carry on their work submerged. Accordingly, the amount of water we drink each day, determines whether the liquids circulating through our tissues should be pure, fresh, and life-giving, or stagnant, stale, and death-dealing.

Thirst is the expression of the nervous system, constituting a call for water, the same as hunger represents a call for food. Pure water, free from all foreign substances, is the best liquid with which to quench this thirst.

It is just as important to supply abundance of water for the proper bathing and cleansing of the internal parts of the body, as it is to wash and bathe the external skin frequently. The living tissues are just as literally soiled and dirtied by their life action and their poisonous excretions, as is the skin soiled by its excretions of sweat and poisonous solids. Therefore the regular drinking of water is absolutely necessary to enable the body to enjoy its internal bath, and this internal cleansing is just as grateful and refreshing to the cells and tissues, as is the external bath to the nerves which exist in the skin.

The total amount of water necessary varies according to the nature of one's work, the amount of sweating from the skin, the moisture of the atmosphere, the amount of water in the food, etc. We believe the average person requires about eight glasses of liquid a day; that is, about two quarts. By the word "glass" we refer to the ordinary glass or goblet, two of which equal one pint. This amount of water should be increased, if anything, throughout pregnancy; while, during the later months, the amount of water taken each day should be at least doubled.

In the condemnation of so-called artificial beverages, an exception should be made of the fruit juices. The fresh, unfermented juices of various fruits come very near being pure, distilled water, as they consist of only a little fruit sugar and acid, together with small amounts of flavoring and coloring substances, dissolved in pure water. None of these substances contained in pure fruit juice needs to be digested.

Lemonade not too sweet, and taken in moderate quantities, is certainly a beverage free from objection when used by the average pregnant woman. Unripe or overripe fruits frequently cause bowel disturbances; as also do the millions of germs which lurk upon the outside of fruits, and which find their way into the stomach and bowels when these fruits are eaten raw without washing or paring. Otherwise, the juices of fruits and melons are wholesome food beverages when consumed in moderation.

## **Pregnancy Hygiene : Exercise, Rest The Mother and Her Child**

By William S. Sadler, M.D., Lena K. Sadler, M.D.  
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### **Exercise**

It should be the regular practice of every expectant mother to spend a portion of each day in agreeable, suitable exercise or physical work of some description. This exercise will be far more beneficial if it can be taken in the open air. The weather and the strength of the patient must be taken into consideration and the necessary modifications of the daily exercise should be made.

An expectant mother living in the city and enjoying the average health and strength, should engage in such agreeable exercise as the raising of flowers, the training of vines, with brisk walks in the fresh air. As much time as possible should be spent in the parks.

The rural "mother in waiting," may do light gardening, raising of chickens, or pigeons, training of vines, or other outdoor work she may enjoy.

No matter what kind of weather prevails, a daily brisk walk should be taken, out of doors, on the porch or in a room with open windows. A daily sweat, as well as the daily prayer, is good for the well-being of the expectant mother. All forms of light housework are commendable. Keep out of crowds. Spend more time in the parks than in the department stores. An occasional evening at the concert or theater is diversion and harmless provided the ventilation is good. Such exercises as horseback riding, bicycling, dancing, driving over rough roads, lifting and straining of any kind, and all other forms of fatiguing exercise should be avoided.

### **Rest**

Rest and relaxation are quite necessary for men and women even in the best of health. A kind providence has arranged that we spend a large portion of our time resting, and sleeping. In addition to unbroken rest at night it is well for the prospective mother quietly to withdraw from the family circle, when the first signs of fatigue begin to appear, and indulge in a little rest, before she gets into a state of nervousness - where nerves twitch and she becomes irritable.

A mother who has borne six children, who has had little domestic help, and who yet retains her youthful appearance and energy, thinks her present condition due to the fact that while carrying and nursing her babies she never permitted herself to reach that stage of exhaustion where her nerves twitched, her voice shrilled, and she became irritable. She made it a practice to drop her work when these symptoms began to appear, and to seek the sanctuary of a quiet room apart from her family, if only for ten or fifteen minutes. And, most important, from the very start she trained her household to respect her right therefore to draw apart.

I have told many women whose household duties press hard: "Your husband would rather see a cold lunch on the table, or 'go out' for dinner, while his wife rested, smiling and happy, than to have a most sumptuous meal spread before him and the wife tired, and fretful." Every woman should make

it the rule of her life to stop just this side of the outburst of words, and lie down long enough, breathing deeply, to calm the spirit.

### **Fresh Air**

"With all people plenty of fresh air, night and day, is indispensable to health, and to none more than the pregnant woman. She should sleep with the windows open, or out of doors, at all seasons of the year; of course, making due allowance for the severity of the winters in the North. It is not only necessary to provide for the adequate ventilation of sleeping-rooms, but also for that of the living-rooms of the house.

Many people, who are quite particular to open wide the windows of the bedrooms, forget that the other rooms need it quite as much. All the rooms of the house which are occupied should be thoroughly ventilated by throwing doors and windows open every morning; at night when the family is assembled the air must be changed now and then or it will become unfit for human lungs."

Men and women are outdoor animals. They were made to live in a garden, not a house. Remember that each person requires one cubic foot of fresh air every second. Don't allow the temperature of living-rooms, during the winter season, to go above sixty-eight degrees. If your home has no system of ventilation, open wide the windows and doors several times a day and enjoy the blessings of a thorough-going flushing with fresh air.

Oxygen is the vital fire of life. Our food, however well digested and assimilated, is just as useless to the body without oxygen, as coal is to the furnace without air. It is equally important to keep up the proper degree of moisture in the air of the living-rooms.

### **Bathing**

Bathing is made necessary by the clothes we wear and by our indoor life. If the skin were daily exposed to sunshine and fresh air, it would seldom be necessary to bathe. The neglect of regular bathing results in overworking the liver and kidneys, and debilitates the skin. Regular bathing - often sweating baths - is very essential to the hygiene of pregnancy.

The neutral bath (97 F.) is excellent to quiet the nerves and induce sleep. Morning bathing is an exceedingly valuable practice. If properly taken before breakfast or midway between breakfast and lunch, it is found to be refreshing and tonic in nature. The feet should be in warm water, the application of cold should be short and vigorous. A rough meat dipped in cold water, rubbed over the body until the skin is pink, is a splendid tonic.

Warm cleansing baths should be taken twice a week at night. There is no good reason for the use of the vaginal douche during pregnancy.

## Pregnancy Hygiene : Dental Health, Recipes, Mental Health The Mother and Her Child

By William S. Sadler, M.D., Lena K. Sadler, M.D.  
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### The Teeth

Because the mother's system is drained of the lime salts which aid in building up the bones of the child, along with other metabolic changes which cause the retention of certain acids which often affect the teeth, they should be frequently examined and carefully guarded. Severe dental work should be avoided, but all cavities should receive temporary fillings while the teeth are kept free from deposits.

As a preventive to this tendency of the teeth to decay, a simple mouth wash of one of the following may be used after meals:

1. One teaspoon of milk magnesia. 2. One tablespoon of lime water. 3. One-half teaspoon common baking soda.

Any one to be dissolved in a glass of water.

### Directions for Saving Urine Specimens

Beginning with the second voiding of urine after rising on the morning of the day you are to save the specimen, save all that is passed during the following twenty-four hours, including the first voiding on the second morning. Measure carefully the total quantity passed in the twenty-four hours. Shake thoroughly so that all the sediment will be mixed, and immediately after shaking take out eight ounces or thereabouts for delivery to the physician the same forenoon. The following items should be noted, and this memoranda should accompany the specimen:

1. Patient's name.
2. Address.
3. This specimen was taken from a twenty-four hour voiding of urine, which began at .... A.m. ...., and ended at .... A.m. ....
4. The total quantity voided during this twenty-four hours was .... pints.

This specimen should reach the laboratory by ten o'clock the same morning.

It is of utmost importance the specimen should be taken to your physician every two weeks, and oftener if conditions indicate it. Take it yourself at the appointed time.

**The Bowels:** Owing to the increasing pressure exerted upon the intestines, most expectant mothers experience a tendency to sluggish bowels and constipation. This unpleasant symptom is usually increased during the later months.

In the first place, a definite time must be selected for bowel action. It may often be necessary, and it is far less harmful, to insert a glycerin suppository into the rectum, than to get into the enema habit.

The injection of a large quantity of water into the lower bowel will mechanically empty it; but the effects are atonics and depressing as regards future action.

Before we take up the advisability of taking laxatives let us consider what foods will aid in combating constipation. The following list of foods are laxative in their action and will be found helpful in overcoming the constipation so often associated with pregnancy:

1. All forms of sugar, especially fruit sugar, honey, syrup, and malt. All the concentrated fruit juices. Sweet fruits, such as figs, raisins, prunes, fruit jellies, etc.
2. All sour fruits, and fruit acids: Apples, grapes, gooseberries, grape fruit, currants, plums, and tomatoes.
3. Fruit juices, especially from sour fruits: Grape juice, lemonade, fruit soup, etc.
4. All foods high in fat: Butter, cream, eggs, eggnog, ripe olives, olive oil, nuts - especially pecans, brazil nuts, and pine nuts.
5. Buttermilk and koumiss.
6. All foods rich in cellulose: Wheat flakes, asparagus, cauliflower, spinach, sweet potatoes, green corn and popcorn, graham flour, oatmeal foods, whole-wheat preparations, bran bread, apples, blackberries, cherries, cranberries, melons, oranges, peaches, pineapples, plums, whortleberries, raw cabbage, celery, greens, lettuce, onions, parsnips, turnips, lima beans, and peanuts.

White bread should be tabooed, and in its place a well-made bran bread should be used. Two recipes for bran bread follow, one sweetened and containing fruit, the other unsweetened:

### **Bran Bread Recipes**

1. Two eggs, beaten separately; three-fourths cup of molasses, plus one round teaspoon of soda; one cup of sour cream; one cup of sultana seedless raisins; one cup of wheat flour, plus one heaping teaspoon baking powder; two cups of bran; stir well and bake one hour.
2. One cup of cooking molasses; one teaspoon of soda; one small teaspoon of salt, one pint of sour milk or buttermilk, one quart of bran, one pint of flour. Stir well, and bake for one hour in a very slow oven. It may be baked in loaf, or in gem pans, as preferred. The bread should be moist and tender, and may be eaten freely, day after day, and is quite sure to have a salutary effect if used persistently.

The drinking of one-half glass of cold water on rising in the morning often aids in keeping the bowels active. Of the laxative drugs which may be used at such a time, cascara sagrada and senna are among the least harmful. Two recipes of senna preparation follow, and may be tried in obstinate cases:

1. *Senna Prunes*. Place an ounce of senna leaves in a jar and pour over them a quart of boiling water. After allowing them to stand for two hours strain, and to the clear liquid add a pound of well-washed prunes. Let them soak over night. In the morning cook until tender in the same water,

sweetening with two tablespoons of brown sugar. Both the fruit and the syrup are laxative. Begin by eating a half-dozen of the prunes with syrup at night, and increase or decrease the amount as may be needed.

2. *Senna with prunes and figs.* This recipe does not call for cooking. Take a pound of dried figs and a pound of dried prunes, wash well. Remove the stones from the prunes and if very dry soak for an hour. Then put both fruits through the meat chopper, adding two ounces of finely powdered senna leaves. Stir into this mixture two tablespoons of molasses to bind it together, the result being a thick paste. Begin by eating at bedtime an amount equal to the size of an egg, and increase or decrease as may be necessary. Keep the paste tightly covered in a glass jar in a cool place. If the senna is distasteful a smaller quantity may be used at first.

### **The Mental State**

Keep the mind occupied with normal, useful, and healthy thoughts. Listen to no tales of woe. Stay away from the neighborhood auntie doleful. Keep yourself happy and free from all worry, care, and anxiety.

"Put no faith in fables of cravings, markings, signs, or superstitions. They are all unfounded vagaries of ignorant old women and will not bear investigation."

**Don't take drugs for worry and sleeplessness. Take a bath.**

**The secret of deliverance from worrying is self-control. Minimize your difficulties. Cultivate faith and trust.**

The conditions which favor sound sleep are: Quiet, mental peace, pure blood, good digestion, fresh air (the colder the better), physical weariness (but not fatigue), mental weariness (but not worry).

When tempted to borrow trouble, when harassed by fictitious worries, remember the old man who had passed through many troubles, most of which never happened. Train the mind to think positive thoughts. Replace worry-thought with an opposite thought which will occupy the mind and enthuse the soul. Drive out fear-thought by exercising faith-thought. Cultivate the art of living with yourself as you are, and with the world as it is. Learn the art of living easily. Associate with children and learn how to forget the vexing trifles of everyday life.

There is something decidedly wrong with one's nerves when everybody is constantly "getting on them." They are either highly diseased or abnormally sensitive. Every woman is a slave to every other that annoys her.

Fear is capable of so disarranging the circulation as to contribute to the elevation of blood-pressure - which will be more fully considered in a later chapter.

## **Complications [discomforts] of Pregnancy : Morning Sickness, Heartburn The Mother and Her Child**

By William S. Sadler, M.D., Lena K. Sadler, M.D.

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It is the purpose of this chapter to take up the various complications which may appear in the course of an otherwise normal pregnancy, and offer advice appropriate for their management.

### **Morning Sickness**

About one-half of the expectant mothers that come under our care and observation, experience varying degrees of nausea or "morning sickness." This troublesome symptom makes its appearance usually about the fourth week of pregnancy and lasts from six to eight weeks.

On attempting to rise from the bed, there is an uncomfortably warm feeling in the stomach followed by a welling up into the throat of a warmish, brackish tasting liquid which causes the patient to hasten to rid herself of it; or, as she rides on the train, on the street cars, in a carriage or automobile, she frequently senses the same unpleasant and nauseating symptoms during the second and third months of pregnancy. Normally, this uncomfortable symptom quite disappears by the end of the third month. A number of remedies have been suggested for it, but that which seems to help one, gives little or no relief to another; we therefore mention a variety of remedies which may be tried.

First and most important of all remedies - is to keep the bowels open. Sluggishness of the intestinal tract greatly increases the tendency to dizziness and nausea. During the attack, it is advisable not to attempt to brush the teeth, gargle, or even drink cold water. While you are yet lying down, the maid or the good man of the house should bring to you a piece of dry, buttered toast, a lettuce sandwich with a bit of lemon juice, or perhaps a cup of hot milk or hot malted milk. Coffee helps to raise the blood-pressure, and all articles of diet that tend to raise the blood-pressure are best avoided during pregnancy.

A cup of cocoa may be tried, but, as a rule, women at this time do not relish anything sweet. Oftentimes a salted pretzel is just the thing, or a salted wafer will greatly help. Remain in bed from one-half to one hour and then rise very slowly. There should be plenty of fresh air in the room, as remaining in overheated places is quite likely to produce a feeling of sickness at the stomach.

When the attack comes on during a train ride, open the window and breathe deeply, this, with the aid of a clove or the tasting of a bit of lemon, will usually give relief. In extreme instances the patient should lie down flatly on the back, with the eyelids closed. Go to the rear of the street car, so that you can get off quickly if necessity demands; breathe deeply of the air; resort to the use of cloves or lemons; and therefore by many and varied methods will the expectant mother be enabled to continue her journey or finish her shopping errand. We would suggest that, as far as possible, walking should be substituted for riding. I have never heard of a woman being troubled with nausea while walking in the parks, on shady streets, along the country road, or on the beach.

Of the medicines prescribed for "morning sickness" and the nausea of pregnancy, cerium oxalate taken three times a day in doses of five grains each, is probably one of the best.

The persistent or pernicious vomiting which continues on through pregnancy will be spoken of later.

### **Heartburn**

Acid eructation are spoken of as "heartburn," and are occasioned by the increased activity of the acid making glands of the stomach. Under certain conditions this acid content of the stomach is regurgitated back into the throat and even belched up into the mouth. In this condition it is well to avoid most acid fruits. Ice cream and other frozen desserts are beneficial. The lowered temperature of cold foods depresses the activity of the acid glands, as also does the fats of the cream, while protein food substances such as white of egg, cheese, and lean meat, help by combining with the excess of acid present in the stomach.

Buttermilk or the prepared lactic acid milk, if taken very cold, is often helpful, notwithstanding it is an acid substance, in connection with the dietetic management of heartburn. If the acid eructation be troublesome between the meals, the taking of calcium magnesia (one round teaspoon in a glass of cold water), or, one-half teaspoon of common baking soda in a glass of water, will afford immediate and temporary relief. Simply nibbling a little from a block of magnesia will often give instant relief. These alkaline effectively neutralize the mischievous acids which cause the so-called "heartburn."

### **Irritability of the Bladder**

The flexing or bending forward of the gravid uterus, by making pressure on the bladder, sets up more or less irritation and consequent disturbance of the urinary function. The capacity of the bladder is actually diminished, and this produces frequent urination. There is usually no pain connected with this annoying symptom - the chief discomfort is the frequent getting up at night. This inconvenience may be lessened by drinking less water after six P.M. These bladder disturbances are most marked in the earlier months, and gradually disappear as the uterus raises higher up into the abdomen; although this symptom may reappear in the last two weeks, as the head descends downward on its outward journey.

Should the urine at any time become highly colored, take a specimen to your physician at once. Twenty-four hour specimens of urine should be taken by the patient to her physician every two weeks. Do not send it - take it.

## **Complications of Pregnancy : Abortion, Abdominal Pain, Miscarriage The Mother and Her Child**

By William S. Sadler, M.D., Lena K. Sadler, M.D.  
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### **Leucorrhoea**

While leucorrhoea is an unusual complication of pregnancy, it is often very troublesome and sometimes irritating. Do not take a vaginal douche unless it has been ordered by your physician, and even then make sure that the force of the flow of water is very gentle. The bag of the fountain syringe should be hung only about one foot above the hips. Soap and water used externally, followed by Vaseline or zinc ointment, will usually relieve the accompanying irritation.

## **Threatened Abortion**

In the third chapter attention was called to the formation of the placenta or "after birth," on the site of the attachment of the cocoon embryo. At this particular time of the pushing away of the embryo from the uterine wall, one of the accidents of pregnancy occurs, in which the embryo becomes completely detached and starts to escape from the uterus, accompanied by varying degrees of pain and hemorrhage. The symptoms of this threatened abortion are:

1. Heavy menstrual pains.
2. Backache.
3. Hemorrhage.

The approach of the calendar date of the third month of pregnancy should be watched for, and all work of a strenuous nature studiously avoided; while at the first signs of the backache or any unusual symptom, the expectant mother should immediately go to bed and send for the physician. One patient who had aborted on four different occasions was able to pass this danger period by adhering to a rigid program of prevention during her fifth pregnancy. Two weeks before the third month arrived she discontinued her teaching and went to bed. She remained there four weeks, therefore running over into the middle of the following month. Gradually, she resumed her duties of teaching, carried her precious bundle of life to full term, and is now the proud and happy mother of a splendid baby girl.

Should abortion seem imminent, from one-eighth to one-fourth of a grain of morphine sulfate will greatly reduce all uterine contractions, and this, with the general quieting effect on the whole system, will usually suffice to prevent an abortion. The patient should quietly remain in bed from three days to one week.

If the abortion takes place - if a clot accompanied by hemorrhage is passed - save everything, lie in bed very quietly and send for your physician at once; and when he does arrive, be content if he does not make an internal examination at once, for if he should there is more or less danger of infection. And I repeat - throw nothing away - burn nothing up, save everything that passes until your physician has carefully examined it.

## **Sudden Abdominal Pain**

Sudden or severe pains in the abdomen should be reported at once to your physician, while you should immediately go to bed and quietly remain there until you receive further instruction from your doctor when he calls.

In the later stages of pregnancy any appearance of blood should likewise be noted and reported without delay. These symptoms may not always be serious, but they are also associated with grave complications, and should, therefore, be given prompt attention.

## **Miscarriage**

Abortion is a term used to designate the loss of the embryo prior to or at the third month. Miscarriage applies to the expulsion of the fetus or emptying of the uterus after the third month. It is possible for a miscarriage to occur anytime during the interim between the fourth and ninth months.

After the uneventful passing of the third month, if an accident threatens, we instruct the mother to remain quietly in bed three to five days at the calendar date comparable with each menstrual period; and as she approaches the seventh month, we adjure her to be unusually careful and prudent.

The causes of miscarriages are many: Disease of the embryo, imperfect fetal development, some constitutional disease of the mother, a faulty position of the uterus, or it may result from something unusual about the lining of the uterus such as an endometritis - an inflammation of the mucus membrane.

Expectant mothers who manifest symptoms of a threatened miscarriage should studiously avoid such exercises as climbing, riding, skating, tennis, golf, dancing, rough carriage or automobile riding, and such taxing labor as sweeping, lifting, washing, running the sewing machine, window cleaning, the hanging of pictures, draperies, etc.

### **Cravings**

Within reason, a pregnant mother should follow her natural appetite and satisfy her dietetic longings. Should she desire unusual articles of food, as far as possible she should have them. The idea has long prevailed that if the mother does not get what her longing soul supremely desires, that the on-coming baby is going to cry and cry until it is given what the mother wanted with all her heart and did not get. Such an idea is the very quintessence of folly and the personification of foolishness and superstition.

Many a precious babe has suffered as a victim of this notion of "craving" and "marking." One mother gave her baby a huge mouthful of under-ripe banana because "she knew that was just what he wanted, because, when pregnant, she had craved and craved bananas and for some reason or another she did not get them." The soft, smooth piece of banana slipped down the baby's throat - on into the stomach and intestines - caused intestinal obstruction and finally the end came; and we registered one more victim to the fallacies of fear and the superstitious belief in "cravings" and "markings." Occasionally some cravings are unusual and freakish, for instance, egg shells, leather, candles, chalk, and other abnormal tastes are developed. Of these we have only to say, "Rise above them, become mistress of the situation and change your longings." If such abnormal cravings come to you in the kitchen, don your bonnet and go at once out of doors and take a walk. Don't be foolish just because somebody told you foolish stories about these things.

## **Complications of Pregnancy : Constipation, Hemorrhoids, Swellings The Mother and Her Child**

By William S. Sadler, M.D., Lena K. Sadler, M.D.  
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### **Constipation**

Bowel hygiene is an important part of the management of pregnancy. Constipation often proves to be very troublesome. In another chapter this subject is treated at some length. Here, we pause only long enough to say that habit has much to do with this difficulty. A regular time should be set apart each day for attending to this important matter.

## **Hemorrhoids**

Of all the maladies that the human family falls heir to, hemorrhoids are among the commonest and, we may add, the most neglected. Any woman who enters pregnancy, suffering from hemorrhoids, is going to have her full share of suffering and pain before she has finished with her labors. Taken early, they may be greatly helped, if not entirely relieved, by the daily use of the medicated suppository. The bowel movements should never be allowed to become hard, the dietetic advice of another chapter should be carefully followed and the oil enema, as described in the appendix, should be used if necessary. For immediate relief, hot witch-hazel compresses may be applied; or, in the case of badly protruding piles, the patient should immerse the body in a warm bath and by the liberal use of Vaseline they can usually be replaced. The physician should be called and he will advise any further treatment the case may require.

## **Varicose Veins**

Varicose veins or the distension of the surface veins of the legs are very common among women in general and pregnant women in particular. The legs should be elevated whenever the patient sits, while in bad cases they should be bandaged while standing. There are many elastic surgical stockings on the market today that, if put on before rising in the morning, will give much relief and comfort all during the day. Any large medical house or physician's supply house can furnish them according to your measurements - which should be taken before getting out of bed in the morning. These measurements are taken according to instructions and usually are of the instep, ankle, calf of leg, length of ankle to knee, etc.

## **Cramps**

Cramps are sharp, exceedingly painful muscular spasms occurring in the muscles of the calf of the leg, the toes, etc. The expectant mother in the later months of pregnancy awkwardly turns in bed, is suddenly awakened and without a moment's warning, is seized with a most excruciating pain in her leg or toe. The most effectual treatment for these cramps is quickly to apply a very cold object to the cramping muscle. Extremes of either heat or cold usually relieve as well as the vigorous grasping or kneading of the muscle. A hot foot bath on going to bed will often prevent an attack. A long walk in the latter months of pregnancy should invariably be followed by a short hot bath or a foot bath. Many attacks may be avoided by this procedure.

## **Swellings**

All swellings should be taken seriously by the pregnant mother to this extent, that she save a twenty-four hour specimen of urine and that she personally take it to her physician, with a report of her "swellings." This symptom may or may not indicate kidney complications. The blood-pressure together with chemical and microscopical analysis of the urine will determine the cause.

Slight swelling of the feet is often physiological and is due to pressure of the heavily weighted uterus upon the returning veins of the legs. The progress of the vein blood is somewhat impeded, hence the accumulation of lymph in the tissues of the legs, ankles, and feet.

Never allow yourself to guess as to the cause of swellings, always take urine to the physician and allow him definitely to ascertain the true cause. All tight bands of the waist and knee garters must be discarded at this time. The same general treatment suggested for varicose veins holds here.

### **Goiter**

The enlargement of the thyroid gland - goiter - is physiological during pregnancy, and is believed to be caused by the throwing into the maternal blood stream of special protein substances derived from the fetus. As just stated, this is more or less physiological, will usually pass away after the babe is born, and, therefore, need give the mother no particular concern. Tight neck bands should be replaced by low, comfortable ones. The bowels should move freely every day, and water drinking be increased as well as sweating of the skin encouraged by a short, hot bath, followed by the dry blanket pack, while the head is kept cool by compresses wrung from cold water. In this manner the elimination of these poisons is increased through both the skin and the kidneys.

## **Complications of Pregnancy : Blood-Pressure, Insomnia, Headache**

The Mother and Her Child

By William S. Sadler, M.D., Lena K. Sadler, M.D.

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### **Backache**

The backache of the later months of expectancy is very annoying and often spoils an otherwise restful night's sleep. This is probably also a pressure symptom, if the physician's analysis of the urine proves that the kidneys are not at fault. If you have electric lights in the home, a very useful contrivance can be made which will give you great relief. The light end of an extension cord, five to seven feet in length, is soldered into the center of the bottom of a bright, pressed tin pail about twelve inches in diameter at the top and nine or ten inches deep.

With the bail removed, screw in a sixteen or thirty-two candle power bulb and attach the extension cord to a nearby wall or ceiling socket. This arrangement supplies radiant heat and is called a photophore. Apply this twofold remedial agent - light and heat combined - to the painful back (underneath the bed clothing) and our restless mother will go to sleep very quickly. This may safely be used as often and as long as desired.

Persistent, prolonged, and very much aggravated cases of morning sickness are termed pernicious vomiting. The patient emaciates because of the lack of ability to keep food long enough to receive any benefits.

In treating these cases the sufferer should be put to bed in a room with many open windows, or, if the weather permit, should be out of doors on a comfortable cot. She should remain in bed one hour before the meal is served and from one to three hours afterward. The mind should be diverted from her condition by good reading, friends, or other amusements. The utmost care and tact should be used in the preparation of her food, and art should be manifested in the daintiness of the tray, etc.

We found one mother was nauseated even at the sight of her tray and so we planned a call that should bring us to her home at the meal hour. The tray came in with the attendant in unkempt attire,

who said, as she placed it carelessly down on a much-loved book our patient had been reading: "I heard you say you liked vegetable soup so I brought you a big bowl full." As I gazed at the tray, I saw a large, thick, gravy bowl running over with the soup. I usually like vegetable soup, but at the sight of that sloppy looking bowl - well, I thought I should never care for it again.

After installing a new maid who had a sense of service and daintiness, and who took real pleasure in the selection of the dishes for the tray, as well as the quality and quantity of food served in them, our patient made speedy recovery, went on to full term and became a happy mother.

There is no doubt that the mind has very much to do with this vexing complication of pregnancy. One mother immediately stopped vomiting everything she ate when told by her husband that "the doctor said he was coming in the morning to take you away from me to the hospital if you didn't stop vomiting." Everything known should be tried for the relief of these patients and in extreme cases, when the mother's life is endangered, pregnancy should be terminated.

### **Insomnia**

The neutral full bath, temperature 97 F., maintained for twenty minutes to one-half hour, should be taken just on going to bed. The patient must not talk - must rest in the bath - absolutely quiet. The causes of insomnia should be determined if possible, and proper measures employed to remove them. They may consist of backache, cramps, frequent urination, pressure of the uterus on the diaphragm or pressure against the sides of the abdomen. The bed should be large, therefore giving the patient ample room to roll about.

The following procedures may be tried in an effort to relieve the sleeplessness:

Rubbing of the spine, alcohol or witch-hazel rubbing of the entire body, the neutral bath, or the application of the electric photophore - described a few pages back - may be made to the painful part. *Do not resort to drugs*, unless you are directed to do so by your physician.

### **Headache**

Headaches should not be allowed to continue unobserved by the attending physician. Measure the daily output of urine, which should be at least three pints or two quarts. In case of daily or frequent headaches, notify your physician at once and take a twenty-four hour specimen of urine to him. Headache is an early symptom of retained poisons and if early reported to the physician quick relief can be given the patient and often severe kidney complications be avoided by the proper administration of early sweating procedures. Water drinking should be increased to two quarts (about ten glasses) a day. Less food and more water are the usual indications in the headaches of pregnancy.

### **High Blood-Pressure**

Blood-pressure is called *high* when the systolic pressure registers above 150 to 160 millimeters of mercury. Pressure above 165 should be taken seriously and the patient should keep in close touch with her physician. Tri-weekly examinations of the urine should be made, while eliminating baths should be promptly instituted. The subject of blood-pressure in relation to pregnancy will be fully dealt with in the next chapter - in connection with toxemia, eclampsia, etc.

## **Pregnancy - Toxemia and its Symptoms The Mother and Her Child**

By William S. Sadler, M.D., Lena K. Sadler, M.D.  
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At the close of the preceding chapter on the complications of pregnancy, brief mention was made of blood-pressure as a possible source of anxiety. This chapter will be devoted to a further discussion of the subjects of toxemia, eclampsia, convulsions, and especially blood-pressure - in connection with other leading symptoms of these serious complications of pregnancy.

### **Toxic Symptoms**

In a former chapter we learned that the developing child nearly doubled its weight in the last two months of pregnancy. As the child grows, its metabolic waste matter is greatly increased, while all these poisonous substances must finally be eliminated by the mother. Now, the mother's waste matter is of itself considerably increased; and so, if the kidneys, the liver, and the skin are already over-taxed in their work of normal elimination - if they are already doing their full quota of work - we can readily see that the additional waste matter of the unborn child will throw much extra work on the already overworked eliminative organs, and this results in a condition of toxemia. Certain symptoms accompany this state of constitutional poisoning or auto-intoxication - the chief of which are:

1. Headache.
2. Dizziness.
3. Blurring of the vision.
4. Swelling of the feet and hands, or puffiness of the face.
5. Diminished urine.
6. Vomiting.
7. High blood-pressure. 8. Albumin and casts in the urine.

Any one of these symptoms may or may not indicate toxemia; but it should be reported at once to the attending physician. In the presence of one or more of these symptoms an expectant mother is always safe, while awaiting the physician's advice, in carrying out the following program:

1. Drink more water or lemonade.
2. Take a mild cathartic.
3. Avoid eating much meat and other highly protein foods.

### **Convulsions of Pregnancy**

This serious complication of the last weeks of pregnancy demands immediate attention. They may almost invariably be avoided if the blood-pressure and the urine are studiously watched during the latter part of the expectant period.

If you are unable to get your physician at once, the following treatment should be administered immediately.

1. A hot colonic flushing.
2. A hot bath followed by the hot blanket pack.
3. One drop of croton oil on a bit of sugar may be placed on the back of the tongue.
4. Chloroform may be administered, provided a competent nurse or other medical person is present.

The appearance of convulsions which have been preceded by one or more of the symptoms noted under the head of "toxemia," indicates that the patient has become so profoundly intoxicated and poisoned by the accumulating toxins, that the lives of both mother and child are jeopardized by threatened eclampsia. At such a time, the attending physician will immediately set about to bring on labor, and therefore seek to empty the uterus at the earliest possible moment.

### **Cardinal Symptoms of Toxicity**

Since toxemia (eclampsia) is one of the complications of pregnancy most to be dreaded, it is fortunate that it almost invariably exhibits early danger signals which, if recognized and heeded, would enable the patient and physician to initiate proper measures to avert danger and escape the threatened disaster. The presence of this toxic danger is indicated by the persistent presence of the following three symptoms:

1. Persistent, dull headache.
2. Presence of casts in the urine.
3. Persistent high blood-pressure, with tendency to increase.

Of course, albumin will probably appear in the urine along with the casts, but it is the continued appearance of the casts that is of more importance as a danger signal. Albumin is quite common in the urine of the expectant mother, but casts - long continued - suggest trouble. Headache as an indicator of toxemia is of special significance when coupled with the other two cardinal symptoms of eclampsia - urinary casts and increasing high blood-pressure. Therefore, the necessity for frequent urinary tests and blood-pressure examinations during the last weeks of pregnancy - especially, if the patient has suffered from headaches and has been running albumin in the urine.

### **High Blood-Pressure**

Blood-pressure is a term used to indicate the actual pressure of the blood stream against the walls of the blood vessels. The blood-pressure machine tells us the same story about our circulatory mechanism, that a steam gauge does about a high-pressure boiler. The normal blood-pressure varies according to the age of the patient. For instance, the normal pressure of a young person, say up to twenty years of age, runs from 100 to 120 millimeters of mercury; and then, as the age advances, the blood-pressure increases in direct ratio; for every two years additional age the blood-pressure increases about one point - one millimeter.

The average pregnant woman starts in her pregnancy with a blood-pressure of say, 125 millimeters, but as pressure symptoms increase, and as constipation manifests itself, and as the circulating fluids are further burdened with the toxins which are eliminated from the child, the blood-pressure normally increases to about 140 mm., and later, possibly to 150 mm. If the pressure goes no higher, we are not alarmed, for we have come to recognize a blood-pressure of 140 as about the normal pressure of the pregnant woman.

There are a number of factors which enter into the raising of the blood-pressure. For instance, at any time during the pregnancy, if the eliminative organs of the mother are doing inefficient work, if she falls a victim to a torpid liver, diseased kidneys, decreased skin elimination, or sluggish bowels, then, with the added and extra excretions from the child, there is superimposed upon the mother far more than the normal amount of eliminative work - and then, because of improper and incomplete elimination, the blood-pressure is increasingly raised.

### **Eclampsia Prevented**

This whole subject can best be illustrated by relating a story, the actual experience of Mrs. A. This patient came to the office with a history of Bright's disease (albumin and casts in the urine), and chronic appendicitis. While treating her for the kidney condition, preparatory to an operation for the removal of the troublesome appendix - in the very midst of this treatment - she became pregnant, and great indeed was our dismay. We entertained little hope of getting both the mother and child safely through. Frequent examination of urine was instituted, the albumin did not increase and the blood-pressure remained at normal - about 124 mm.

She paid weekly or bi-weekly visits to the office and carefully followed the regime outlined. She drank abundantly of water and strictly followed the dietary prescribed. Weeks and months passed uneventful, until we approached the last six weeks of pregnancy, and then we found to our surprise one day that the blood-pressure had made a sudden jump up to 175 mm., while the urine revealed the presence of numerous casts and albumin - in the meantime the albumin had entirely disappeared. There were also other urinary findings which showed that the liver was not doing its share in the work of burning up certain poisons.

In her home we began the following program: Every day we had her placed in a bathtub of hot water, keeping cold cloths upon her brow, face and neck, and then, by increasing the temperature of the bath, we produced a very profuse perspiration. She was taken out of this bath and wrapped in blankets, therefore continuing the sweat. All meat, baked beans, and such foods as macaroni and other articles containing a high percent of protein were largely eliminated from her diet. At times she did not even eat bread. Her chief diet was fruit, vegetables, and simple salads, and yet the albumin and casts continued to increase in the urine and the blood-pressure climbed up to 190 mm.

As we approached the last two weeks of pregnancy, this little woman was taken to the hospital and systematic daily treatment with sweating procedures was begun. Among other things, she had a daily electric light bath. After each of these baths she was wrapped in blankets and the sweating continued for some time. Careful estimations of albumin were made daily and the blood-pressure findings noted three times a day. During the last week of pregnancy she lived on oranges and grapes. Day by day she was watched until the eventful hour arrived. She went into the delivery room and gave birth to a perfectly normal child. The albumin and casts quickly cleared up, the blood-pressure lowered, and today the little woman is a fond mother of a beautiful baby boy.

It is hard to estimate what might have taken place had not her elimination been stimulated. The blood-pressure was our guide. Had the albumin (without casts) appeared in the latter weeks of pregnancy with a blood-pressure of 140 or 150 mm., we would not have become excited, for the reason that in every normal pregnancy there is often present a trace of albumin in the latter weeks; but when the blood-pressure jumped to 170 or 190, then we knew that toxemia - eclampsia - convulsions - were imminent.

So we have in recent years, come to look upon the blood-pressure as an exceedingly important factor - as an infallible indicator of approaching trouble - as a red signal light at the precipice or the point of danger; and it not only warns us of the danger, but it tells us about how near the boilers are to the bursting point. The glassy eye, the headache, the full bounding pulse and the blurring of vision, are all symptoms accompanying this high blood-pressure, so that in these enlightened days no practitioner can count himself worthy the name, or in any way fit to carry a pregnant woman through the months of waiting, unless he sees, appreciates, and understands the value of blood-pressure findings in pregnancy.