

# EMERGENCY CHILD BIRTH

by Gordon R CARSON

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## INTRODUCTION

Because of their training and experience, physicians and midwives are the usual attendants of the woman in childbirth. Sometimes, however, it happens that the baby arrives before the professional attendant can reach the mother, or the mother the hospital. This manual is for the lay person who must give assistance at such a time.

Most frequently, of course, this person will be a policeman or an ambulance driver, or, under disaster conditions, a Civil Defense volunteer; but any adult may, through an unusual combination of circumstances, find himself faced with a situation in which he must help a woman in childbirth.

The manual is primarily intended to be used first in group instruction under the direction of a physician, then as a reference guide for those who have received this instruction. It is assumed that such persons will be familiar with general first aid methods as taught in American Red Cross classes.

Perhaps the most important thing for the lay assistant to know is that labor and the delivery of a child are normal functions which nature always tends to complete successfully. Statistics show a loss of less than one mother in a thousand, less than four babies in a hundred—and these statistics are for all deliveries in large hospitals and therefore include mothers who have been ill for years and premature babies too tiny to live. An attendant without medical training called upon suddenly to assist at a birth should have results at least as good as

those of the hospitals because he is usually dealing with the least complicated cases. Mothers who have been ill for some time are ordinarily hospitalized. Women with prolonged or obstructed labors do get to the hospital in time. The women who deliver in taxicabs, ambulances, and police squad cars are usually those with short labors, and these are nearly always easy, normal deliveries. Since the babies in these circumstances are not suffering from the effects of anesthetics or pain-relieving drugs given to the mother, they rarely require resuscitation.

The attendant at an emergency delivery can, therefore, if acquainted with a few basic principles, help the mother without worrying about the loss of a life.

These basic principles will be set forth in this manual. Underlying them all is the realization that the performing of the delivery does not depend on the attendant but on nature; that his job is merely to assist nature. To assist, of course he must have an idea of what nature is doing and how she is doing it, and this knowledge will be summarized for him. If at any time he does not understand what is going on, he does best to stand by and do nothing until the process reaches a point at which he once more understands it. Then he again begins to give any help which is desirable.

Generally speaking, mechanical assistance is rarely needed, but psychological or emotional support to the mother is almost always in order. This is usually given by means of a calm and confident manner and the frequent assurance that all is going well. Such moral support is given to the mother not just because she is a fellow human being undergoing a trying experience, worthy as that reason is, but because calmness on her part and confidence in nature, in herself, and in her attendant make it possible for her to do her part of the

job better. Giving birth, at its best, is something a mother does, not merely something which happens to her.

Reassurance and moral support are actually the major contribution of the attendant in most cases. This point should be stressed because many of the following pages will be devoted to the handling (as far as emergency aid can go) of complications of labor. These must be included because they do sometimes occur in emergency child-births. But they are rare—very rare. In over 95 per cent of the cases of emergency childbirth, though the emergency attendant will be overwhelmed with gratitude and widely praised as a hero, he can smile within himself at the knowledge that his simple tasks could have been performed by any bright eight-year-old.

## Chapter 1

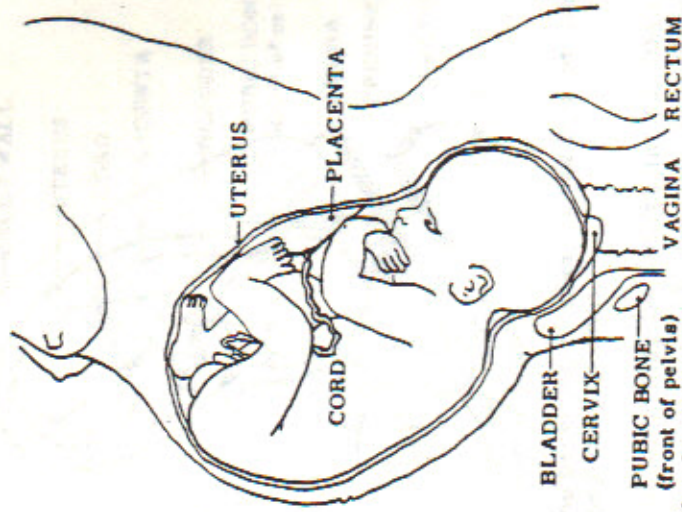
### PREGNANCY AND LABOR

In order to give intelligent help, the attendant of the woman in childbirth needs to understand the process which he is assisting. We shall first, therefore, describe a normal pregnancy and labor, beginning at about the fifth month of pregnancy.

A full-term baby is usually born at about 280 days, or forty weeks, after the last normal menstrual period. It is important, however, that anyone who has occasion to attend an emergency childbirth remember that some pregnancies are much shorter. Some babies are born prematurely, and to say, "This cannot be labor because it is too soon," is to make a mistake that may have laughable results—or tragic ones. Babies born before thirty weeks do not usually survive, but they too must be given every care, no matter how small they are, on the chance that they may live.

The baby and the bodily apparatus which permits him to live within the mother are contained in the womb, or uterus, which is a large elastic sac about half to three-quarters of an inch in thickness, with the mouth pointing downward into the birth canal, or vagina. The womb and its contents may be felt through the mother's belly wall. It resembles a football in shape, and reaches up to the belly button at five months, to the lower ribs at seven months.

The mouth of the uterus, the cervix, is closed almost entirely during pregnancy, the tiny opening being plugged with rather thick mucus. Inside the uterus is the bag of waters—a thin, semi-transparent membrane sim-



This shows the most common position of the baby's body within the mother, as well as the position of the womb (uterus), placenta, cord, and birth canal (vagina) in relation to the mother's body and the baby.

ilar to wet cellophane, within which there are several pints of clear, watery fluid in which the baby floats. There is no air in the sac; before birth the baby does not breathe air, but gets all his oxygen and food from the mother and excretes all his wastes through her.

The baby's means of communication with the mother is the umbilical cord, which comes out of the baby's belly button and runs into the placenta, or afterbirth. The placenta is an organ shaped like a thick pancake about one inch thick and seven inches across.

The baby's heart pumps blood out through the cord

into the placenta, where it is brought very close to the mother's blood stream running in large vessels in the wall of the womb. The two blood streams do not mingle; they flow side by side, separated by a very thin membrane, through which food materials, oxygen, and waste material pass. The blood which has been pumped into the placenta then runs back through the cord to the baby, supplying him with the necessary nutriment.

The cord is the baby's life line. It tends to be a spiral structure, like a nonkinkable telephone cord. If it is drawn into a tight knot or pinched off, the baby has no means of obtaining oxygen and, like a deep sea diver whose air line is shut off, dies within a few (about six to ten) minutes.

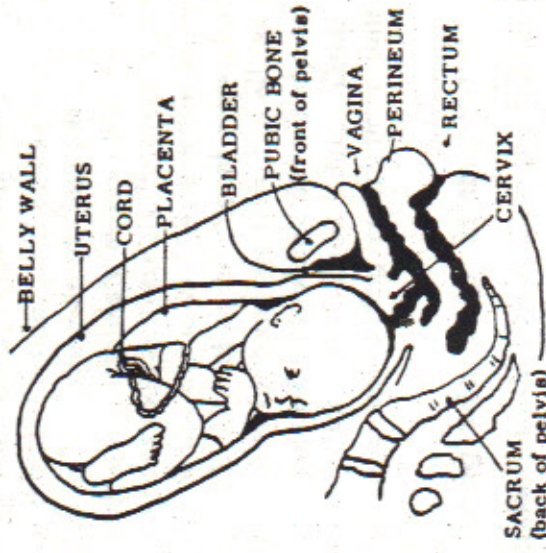
The waste products of the baby are disposed of through his blood stream as it runs through the placenta. His bowels ordinarily do not move at all during pregnancy or labor.

The mouth of the womb (the cervix), while tightly closed during pregnancy, becomes very soft and elastic toward the end of pregnancy and in the labor process opens to allow the baby to move into the birth canal, or vagina. The vagina is extremely elastic, its stretching being limited only by the bony walls of the pelvis.

### Signs of Beginning Labor

The beginning of labor is variable. It may make itself known to the mother or to her attendants in several ways. Perhaps the most usual signal occurs when the plug of mucus is dislodged from the mouth of the womb and is seen on the clothing or in the toilet in the form of blood-stained mucus. This is generally referred to as "the show." It may continue through labor.

If the bloody mucus show passes unobserved, the



The beginning of labor. Notice that the cervix is just beginning to open.

first sign of labor may be the rhythmical contractions of the muscles of the womb—the so-called "labor pains."

Less commonly, the onset of labor is signaled by the breaking of the bag of waters, with either an outpouring or a trickling out of the water surrounding the baby, followed soon by contractions. Sometimes, however, the breaking of the bag of waters may precede labor by a day or two; this does not make the labor any more difficult. In many cases the bag of waters does not break at the beginning, but much later in the course of the labor. (Occasionally the baby may even be born in an intact bag of waters.)

The contractions or "labor pains" are experienced by different women in different ways. Some feel a certain discomfort high in the abdomen, others low in the abdomen, or in some part of the back. Some have merely a recurring breathless or tightening feeling.

Whatever the accompanying sensations may be, the contractions of labor always change the womb from a soft bag around the baby to a very firm, almost hard organ. This firmness or hardness may be felt with the hand on the mother's belly. The hardness passes away with the contraction, as does the accompanying discomfort, if any.

The contractions are rhythmical; they last about twenty to sixty seconds; they tend to recur at certain intervals—ten-minute intervals, five-minute intervals, two-minute intervals; and they persist. (Occasionally, rather rhythmical contractions which do not persist will be noticed for a short time late in pregnancy; these are known as false labor.)

The urgency of getting the woman to the hospital, or the proper attendants to the woman, depends, obviously, on the speed of labor, and this in most cases is proportional to the frequency of the contractions. A woman who has labor pains ten minutes apart is not likely to have a short labor. A woman with labor pains two minutes apart is not likely to have a long labor. There are other factors, of course—the strength of the contractions, whether the woman has had previous children or not, the size of the baby, and so forth—but in general the attendant can gauge whether this is a fast or a slow labor by the interval between contractions. Most labors are more than one and a half hours long and less than twenty-four.

The strength of the contractions tends gradually to increase as they open, bit by bit, the mouth of the womb (the cervix). This opening must enlarge from a very small opening to about four inches (ten centimeters) in diameter—large enough for the full-grown baby's head to pass through. The last part of this first stage of labor can be

quite trying for the mother, since both the intensity and the length of the contractions tend to increase, and she may feel them to be quite painful. Her job at this point is simply to relax as completely as possible during contractions, since relaxation both assists the process of opening the mouth of the womb and lessens the amount of pain experienced. Mental or emotional relaxation may be almost impossible for some mothers, but all can make a real effort to loosen all the muscles of the body, and any effort in this direction will be rewarding. Deep, slow breathing (as in sleep) during contractions will help relax muscles.

### **Encouragement Helps Mother Relax**

The attendant can do little to help the mother physically in the first stage, but he can be of great assistance in helping her to relax by promoting her comfort and feeling of security. She should be kept comfortable as to temperature and position of body. She should be warm enough, but not too warm. She should be allowed to walk about, if she chooses, or she may sit up or lie down, as suits her best. The attendant should make what preparations he can for the delivery, and continue to be encouraging, supportive, and helpful. Sips of water, for instance, may be given the mother occasionally. She can be asked, rather solicitously, whether she is warm enough and if she is comfortable, and so on, so that she knows that someone is there who is concerned about her welfare in a personal way.

Needless to say, excessive attention may annoy her. No one should be in the room except the attendant, the husband, and, if the mother requests it, one female friend or relation. No woman can be relaxed if her baby is being born in the midst of a mob scene.

The husband of the woman in labor is almost always her best support. She knows him and is accustomed to leaning on him; she loves him and trusts him more than any attendant. Usually the husband will supply most of the woman's need for encouragement, leaving the attendant free for his or her other duties. It is often touching and amusing to see how a suggestion or heartening word from the attendant to the mother will be taken up and repeated by the husband, and how the woman will respond to the husband, completely ignoring the original source of the suggestion.

In many cases the husband will be the only, or the best qualified person to assist the delivery. These cases are on the whole very successful. Only in the very rarest cases, where the husband repeatedly induces panic in the wife in spite of attempts to help him, should he be sent on some harmless lengthy errand to secure his absence—for example, to a drug store for gauze.

### **The Second Stage Is Easier**

The mother needs the most support and reassurance toward the end of the first stage, the opening of the mouth of the womb, since the last ten or twelve contractions are somewhat longer lasting and more distressing, and usually occasion rather severe discomfort. At that point, just before the baby's head reaches the birth canal, she feels the labor is getting much harder and there is no progress. However, these pains she is experiencing are the hardest; there will not be too many more of them, and once they are over, the rest of the labor will be much easier.

When the mouth of the womb is completely open, the baby begins to slide into the birth canal. The contractions become less painful, and the sensation changes.

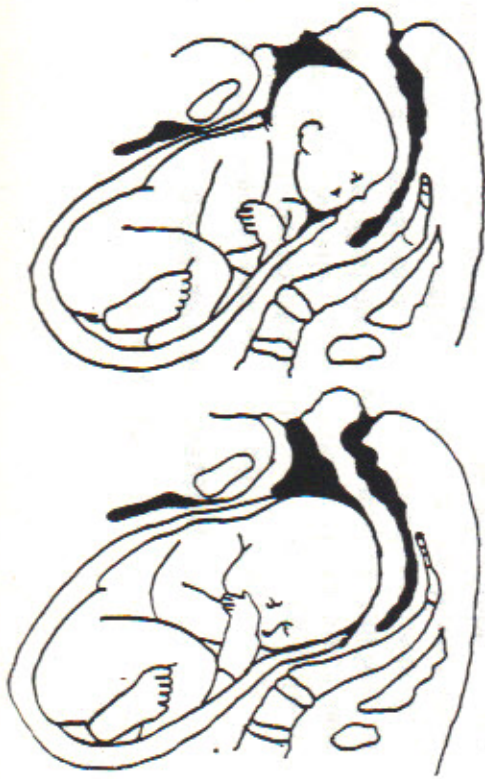
The mother begins to feel a heavy pressure on the rectum, as though she were about to have a large bowel movement. (Some women, not knowing this, have had their first baby in the toilet—a mishap to beware of.)

At this point the mother desires to help along by bearing down, by tightening her abdominal muscles, in the manner of one forcing out a difficult bowel movement (this is sometimes called "pushing with the pains"); and she should be allowed but not in a normal case urged to do so. She should only begin this work when she feels she must, not because she or the attendant thinks it is a good idea.

This second stage, the working stage of labor, is often signaled by trembling, especially of the legs, or nausea, and a relative sleepiness between contractions. The mother appears to be markedly indifferent to and withdrawn from what is going on around her, although she is not unconscious; she hears everything that is said and can be distressed by unwise remarks or undue apprehension on the part of the attendants.

Usually the mother is calmer and more purposeful during the second stage. As soon as she feels the progress, the pressure of the baby's head moving into the birth canal, she becomes more satisfied that she is accomplishing something. However, she may, if she is an individual who has intense fears about the birth of the baby, become excited or distressed at this time by fear of the imminent birth rather than by pain, which has actually decreased since the end of the first stage. In that case, she needs more encouragement and reassurance from the attendant.

As the lowest part of the baby, usually the head, reaches the end of the birth canal, the mother's external genitals, or vulva, begin to stretch. At this point, usually,



The second stage of labor. Left: the cervix is open and the baby's head is sliding through, and pressing on the rectum. The mother has a strong urge to bear down. Right: the baby's head has come down farther and turned toward the vulva.

some of the baby's scalp can be seen. The mother has a great feeling of tightness, or stretching, which, while not painful, makes her tend to hold back her bearing down. This is probably a device of nature to ease the baby's head rather slowly through the last tight place in the birth passage. The mother should be told that the desire to hold back at this time is natural and proper, and that the birth will now soon be completed without much further effort on her part. In some cases of very fast labor, this holding back at the end is not noticeable, and the baby shoots forth into the world with no hesitation or delay. If this seems about to happen, the mother should be asked to breathe rapidly through her open mouth until the head has been delivered (rather than bearing down or "pushing"), in order to avoid or minimize tearing of the vulva due to an excessively rapid birth.

It will be seen that, up to the time of delivery, the



Left: the baby's head is being born. Notice how much the perineum is stretched. Right: the first shoulder is being born. Remember NOT to pull on the head.

chief role of the attendant is to make the mother as comfortable as possible, physically and mentally. The latter is accomplished by his calm cheerfulness and by frequent encouraging words, such as "Everything is fine," "You are doing a good job," and the like.

Two don'ts should be mentioned. First, it is preferable, in general, not to feed the mother-to-be unless her doctor or midwife so advises. Small sips of water or tea from time to time will be helpful and not harmful. Anything more than that should be given only with the approval of a qualified professional attendant, because a full stomach may cause complications if the patient happens to need anesthesia when she gets to the hospital.

Second, an untrained attendant ought not to offer any sedative, pain-relieving drug, anesthetic, or anything of that sort. Any form of anesthesia or pain relief has certain dangers, and should be used only under the supervision of a qualified person. It should be remembered that in the normal case nature does not impose on the mother more distress than she can stand.



## Chapter 2

### DELIVERY OF THE BABY

A discussion of the preparations to be made for delivering the baby must take into consideration the fact that some of these emergency deliveries will be performed in the home, where certain facilities are available, and others on the road or in an ambulance or squad car, with few if any of these facilities. (Any recommendations made by the doctor or midwife engaged to handle the case will, of course, supersede any of the general directions given here.)

When delivery becomes imminent in automobile, ambulance, or police car, the person most important to the safety of the mother and child is the driver. Nature unaided will usually conduct a successful delivery; but all her efforts may be canceled and the mother and baby lost if the driver goes too fast or too recklessly and smashes up the car. Childbirth is not nearly so dangerous as a wild ride in an automobile.

The car should be slowed or stopped for the delivery. A supply of newspapers will be useful for bedding; cover both the seat and the floor of the car. The mother, sitting in a slumped down position in the back seat, can deliver the baby over the edge of the seat into the hands of the attendant; or she may lie across the seat. On a back road in the country where spectators will not gather, if the weather is warm, the delivery could take place outside the car on a blanket or newspapers. The general procedure is the same as for a home delivery. As soon as the baby has been born and is breathing freely, it may be

placed between the mother's legs and the trip to the hospital continued; it is not necessary to deal with the cord or wait for the afterbirth.

### Preparing for a Home Delivery

If the delivery is to take place in the home, somewhat more preparation is usually possible. The most convenient place is usually the bed. This can be improved on by slipping a large sheet of plywood or other boards under the mattress pad to give added firmness. It is best also, when possible, to cover the bed with a waterproof cover—rubber, plastic, or oilcloth—to preserve the mattress. The best absorbent cover to go over the waterproof cover is several thicknesses of clean newspaper. Over these should be placed a clean sheet.

The temperature of the room should preferably be 70° to 75° F. The usual lighting will be by standing lamps and ceiling lights; if possible, two or three flashlights should be procured and kept handy in case of need.

Supplies of water should be available. Two large pots of water should be put to boil for sterilization of any instruments the doctor may bring. They should be kept simmering until needed. If they are not needed for sterilizing, they are sometimes useful for making coffee after everything is over.

There should be provided at the bedside a good sized pan, such as a dishpan, to receive the afterbirth and any bloody discharges that may flow over the newspapers. Beside the bed there should be two straight hard chairs—one for the attendant, the other for the woman to put one foot on in case of need. In the room if possible there should be quite a bit of table or bureau-top space cleared for equipment the arriving doctor may wish to lay out.

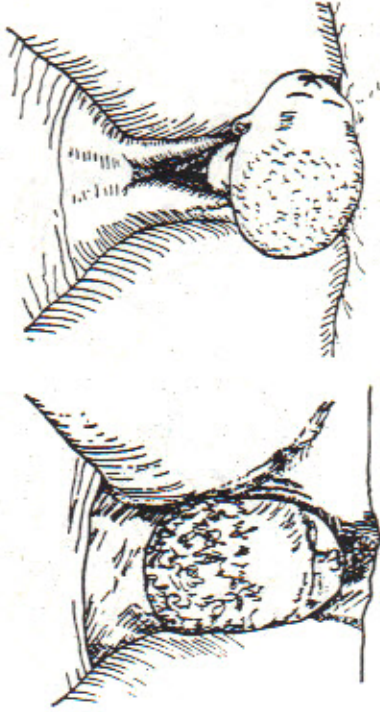


A usual birth as it appears to the attendant. Left: the baby's scalp appears in the opening of the vagina. Right: the baby's head starts to be born (sometimes called "crowning"). Notice that the rectum is open and the perineum stretched.

If there is time, it is desirable that the woman take a sponge or shower bath if she has not recently done so. The pubic hair should not be shaved and no enema should be given, unless the doctor directs these things to be done. The attendant immediately before delivery should wash his hands and arms up to the elbow with any mild soap and plenty of water, using repeated sudsings and rinsings for at least four minutes. If no water is available, the hands should be rinsed in alcohol, mercurochrome, vinegar, or any mild antiseptic (**not** iodine!) No one with any infected sore on the hands, or a sore throat, should attend the mother.

Ordinarily the woman should take her place on the bed at the time when she begins to feel the pressure of the baby's head (the feeling of a large bowel movement about to come). She should remove all clothing below her waist.

It is usually most convenient to have her lie on her



Left: the baby's head has been born. It must **NOT** be pulled on. Right: the shoulders are being born. When you can see this much of the shoulder, you can be sure that the rest of the baby will be born soon.

back with her knees drawn up to give birth to the child. Under certain conditions other positions may be more convenient; for example, in a very soft bed where no stiffening can be procured, the woman by lying on her side can elevate the female genital organs up and out of the soft mattress. In this case she should be delivered on her side with the knees drawn up. To have the woman on her hands and knees is usually more convenient for breech deliveries.

As the woman bears down in the late second stage and the scalp of the baby appears, there will usually be noticed the "holding back" impulse mentioned in the previous chapter. This should be gently encouraged during the time that the head is slowly issuing through the tight external opening. The mother can be told that things are going well, and to continue giving little pushes —no great strong ones.

When the head emerges, which often happens fairly suddenly, the mother usually relaxes for a minute or two.

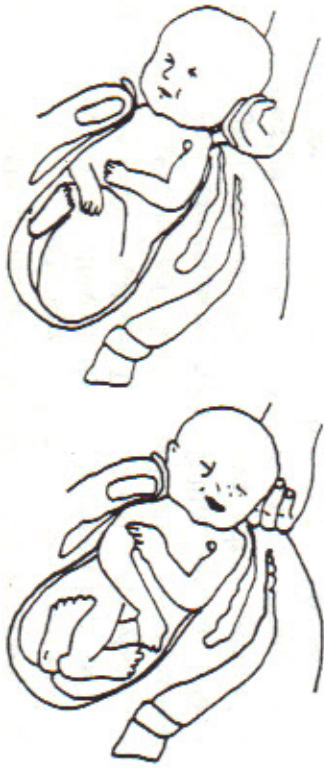
The attendant must **never** pull on the head to get the baby out. Pulling on the head may permanently injure the baby's spinal cord and the nerves of the arms and breathing apparatus.

If the head is still covered by the membranes (bag of waters), looking as if it were in a cellophane bag, the membranes must be torn off, using the fingernails, a pin, or any sharp instrument, so that the baby can breathe. The baby's face, which will usually be looking toward the mother's anus, can be wiped off with a clean cloth, and the mother should be encouraged to bear down most strongly with her next contraction. The proper following of this exhortation produces the birth of the shoulders in almost all cases, after which the rest of the baby slides out quite easily.

If the baby cries with only his head out (most cannot), one can wait indefinitely for the shoulders to be born. But if the child is not crying, and if the mother has worked during two contractions without succeed-

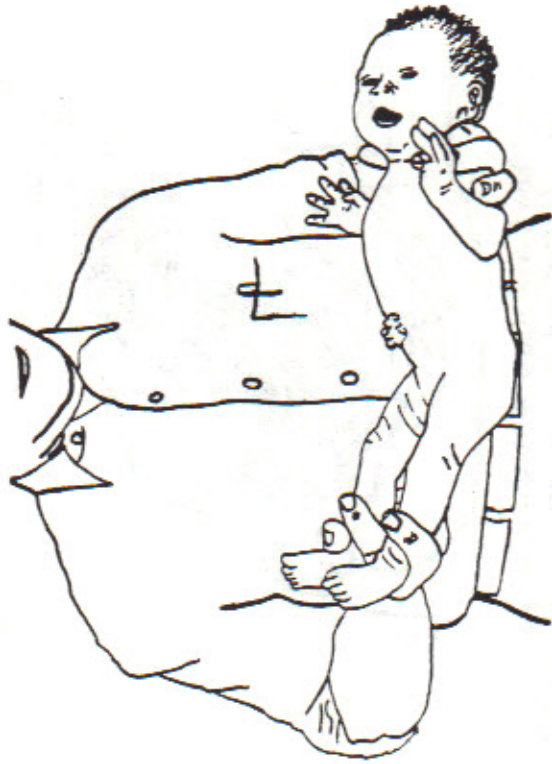


**This pressure of the hands on the uterus is NOT TO BE USED except in those rare cases when the text recommends it, and then only to aid a contraction, and not strongly enough to cause the mother great pain.**



Illustrating a method of helping when the shoulders are stuck (very rare; see text). Left: the finger is hooked under the arm of the baby toward the mother's back and rotated toward the baby's face, pulling gently outward. Right: rotating the baby has released the shoulder which was stuck behind the mother's pubic bone, and the birth can continue.

ing in delivering the shoulders, the attendant should help her by pressing evenly over the top of the uterus toward the birth canal, as hard as possible without causing the mother severe pain. This pressure must be used only during contractions. If this help does not produce the shoulders in two contractions, the attendant's finger should be hooked under that arm of the baby which is toward the mother's back and used to pull out the baby in a spiral fashion, rotating the hooked shoulder toward the baby's face. This draws the shoulder which was toward the mother's belly out from behind the pubic bone, which is the obstacle holding it back in most of these cases. Remember that locked shoulders is a very rare complication, occurring less than once in a thousand cases, and that this maneuver should never be used until the mother has worked through two contractions after the birth of the head with vocal assistance, and two more contractions with assistance by pressure on the uterus.



How to hold a newborn baby.

Frequently when the head alone has been born, it will be noticed that the cord is around the baby's neck once or twice, perhaps rather tightly. The baby is to be wholly delivered and then the cord can be easily un-  
wound.

When completely delivered, the baby should be held with his face down or to the side to permit him to sneeze and cough out any mucus that may be in the nose or throat. The inside of his mouth should **not** be wiped out. The baby is to be moved or carried by a very firm grip on the slippery ankles and a supporting (not choking) hold with the other hand under the shoulders and partly around the neck.

When the baby has started breathing freely or crying, he may be placed on a towel or clean cloth between the mother's legs. Within a very few minutes he should

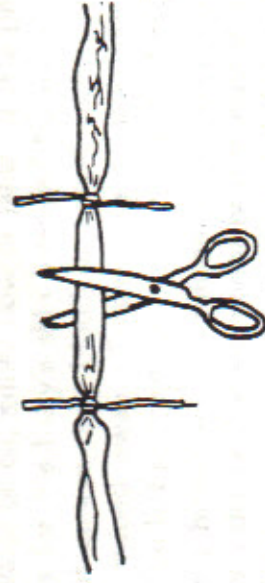
be patted dry and wrapped in about as many layers of cloth as the adults present are wearing.

The cord need not be dealt with at this point. Immediately after the birth of the baby the cord is a fat blue structure. The baby should be allowed to cry for several minutes until the cord becomes much thinner and quite pale. At that point it may be tied very tightly with sterile gauze or a well-boiled shoelace in two places about an inch apart and about twelve inches from the baby's belly, and then cut between the ties with sterile (boiled in water five minutes) scissors or knife; or this job may be left until the later arrival of the doctor, no matter how late this may be.

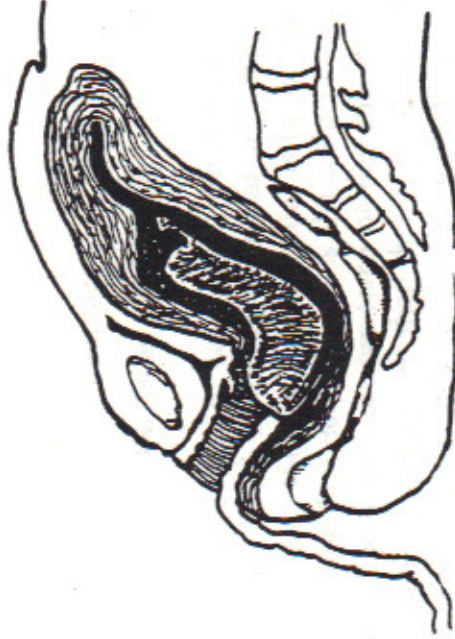
After the cord has been dealt with or the decision has been made not to deal with it, the baby should be placed at the mother's breast (if possible—in the case of the uncut cord it may not be long enough), because its suckling at this time will assist her in expelling the after-



The cord is fat and blue when the baby is born. WAIT.



After the cord becomes thin and white, it may be tied and cut.



The placenta, or afterbirth, has loosened and is sliding out of the uterus. The mother is on her back. Do NOT pull on the cord.

birth and will diminish the amount of bleeding which accompanies the afterbirth.

The afterbirth will follow the baby, usually in a few minutes, sometimes after many hours. If the woman is not bleeding, no effort should be made to hasten the delivery of the afterbirth. If there is some bleeding, or if the mother begins to feel severe cramps, the uterus should be felt through the belly wall. If soft, it should be massaged until it becomes very hard, and gentle downward pressure within the limits of the mother's comfort will usually deliver the afterbirth at this point. **Never** pull on the cord to deliver the afterbirth. Too vigorous massage—enough to cause the mother considerable pain—may deliver only part of the afterbirth and increase rather than diminish the blood loss. The entire afterbirth, all solid matter passed, should be saved (on ice if necessary) so that the doctor can inspect it for completeness when he comes. If the woman is to be taken

to the hospital, the afterbirth should be taken with her. The afterbirth on the side detached from the womb resembles raw liver; the side toward the baby is covered by the shiny bag of waters and large blood vessels radiating out from the cord.

Rather free bleeding is to be expected at the time of the coming of the afterbirth and for a few minutes afterward. Normally the total amount should not be as much as two cups. The suckling of the baby at the breast will minimize the blood loss.

Any small tears in the skin of the vulva, usually going toward the rectum, may be repaired by the doctor when he comes or several months later. The emergency attendant need not be concerned about them.

When the bleeding has slowed, the mother should have several clean sanitary pads put on and should be allowed to walk to a comfortable chair, the seat of which has been covered with many layers of newspaper and some clean old towels. Usually at this point she will be grateful for a cup of tea or coffee and perhaps a light lunch.

While the mother rests, the attendant, the husband, or anyone present with clean hands may dress the baby in shirt, diaper, kimono, and receiving blanket. The natural grease should not be washed off the baby's body with water or oil, either now or later. It is a protective coating for the baby's skin intended by nature to stay on. Of course, any blood or bowel content may be gently wiped away. Proper care of the baby's eyes should be left to the doctor.

Every birth must be registered. If the case is turned over to a doctor, he will normally take care of this, but the attendant at the birth is responsible for seeing that it is done.

### Chapter 3

#### UNUSUAL DELIVERIES

About 4 per cent of babies are born breech (buttocks or legs) first. Such births are not necessarily complicated or dangerous. The risk to the mother is no greater than that of a headfirst delivery unless she suffers injury from the roughness or excessive force of the attendant. The risk to the baby is greater than that of headfirst delivery because of the possibility of suffocation or injury.

The possibility of a breech birth may be suspected if the baby's bowel content, usually dark green, is seen coming out of the mother, although this can occur for other reasons if the baby is in some sort of distress, and it does not always happen in the case of a breech birth. Usually the first indication which the attendant has of a breech birth is the actual appearance of the buttocks or legs instead of the head.

In order to add the weight of the baby to the forces helping delivery, the mother should be assisted to a position on her hands and knees. Both mother and baby must be protected from a fall to the floor, the attendant taking responsibility for the baby and an assistant, usually the husband, standing beside the mother to steady her. In protecting the baby from falling, it is important not to try to support him in any way, but to allow his body to hang down freely, so that his full weight will be pulling him out.

When a breech baby delivers to the point where the navel and cord can be seen, the cord is shut off and with it the baby's oxygen supply from the mother. He

must be delivered to the point where the nose and mouth can get air within the next eight or ten minutes or he suffocates.

Usually the mother's unaided bearing down efforts can accomplish this. If they don't do so in five or six minutes, help may be given her. However, this help must not be given with panicky, excessive speed and force. Besides the possibility of serious injury or death to the mother, the fact is that more breech babies die of injuries received at the hands of their would-be rescuers than die of smothering.

If one or both legs and/or the buttocks appear, they should not be pulled on. The attendant should **never** try to help a breech case until after the navel appears and the mother has had two more pains accompanied by strong bearing down efforts. (Encourage her to work hard for her baby's sake.)

#### When in Doubt — Do Nothing

Some very good doctors feel that the assistance so far described is all that should be given by an untrained attendant because of the danger to the mother and child of rough manipulation and excessive force. Some emergency attendants will, and should, follow their opinion. If this more cautious course is followed, the attendant should continue to urge the mother to bear down as hard as possible with and even between pains.

However, if the attendant knows what he is doing, is reasonably cautious and willing to stop his efforts to deliver the baby (even at the cost of the baby's life) when such efforts are becoming too difficult mechanically, he may feel justified in going beyond what has been described up to this point.

If the birth from the navel to the armpit takes more



Two maneuvers to help deliver arms before head in a breech birth, if they do not drop out by themselves (they usually do). Left: pushing the baby's shoulder blade toward his back; rarely needed, but more often useful than the next maneuver. Right: reaching up to sweep the baby's arm down across the front of his chest (see text).

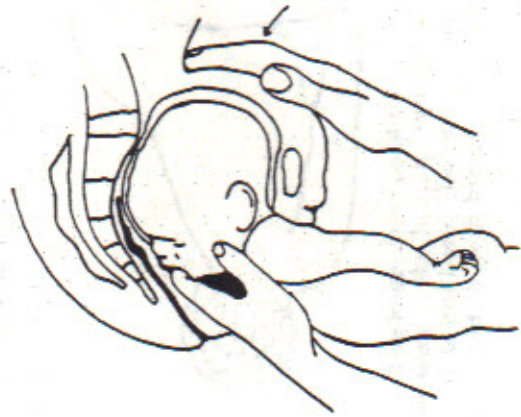
than two contractions, it might then be assisted by gentle pulling on the legs, remembering that such assistance must never be started before the navel is born. The pulling should be in a general downward direction and in such a way that the baby's back is kept toward the mother's belly or side; the baby's back must not be allowed to turn toward the mother's back.

In assisting breech babies to deliver, the arms should be brought out before the head. When the armpit of the baby appears, one finger of the attendant can push the shoulderblade over toward the baby's spine; this will usually help the arm to drop down. If it does not do so promptly, two fingers should be slid up along the baby's upper arm and the arm wiped down across the baby's chest and out. This maneuver is usually easier to do with the arm nearest the mother's back because there is more room in that part of the birth canal. The other arm is delivered by the same maneuver. If neces-

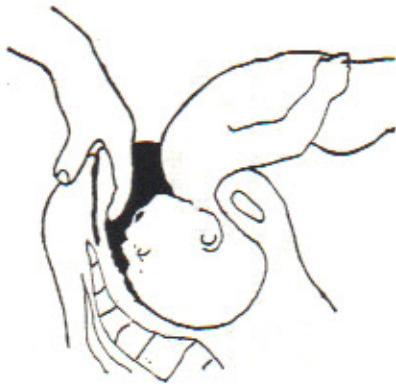
sary, the baby's body may be partly rotated (about 120°—one-third of a circle), bringing the back of the undelivered shoulder around toward the mother's back, where there is more room to deliver the arm easily.

When the two arms are out, the finger is inserted in the baby's mouth—not in order to pull the baby out, but in order to flex the head; that is, to bend the chin down on the chest. When this has been done, strong pressure from above on the mother's lower abdomen will often deliver the baby's head. (Pulling from below may permanently injure the baby's spinal cord and the nerves of the arms and breathing apparatus.)

If the head cannot be delivered without using undue force, the baby can be helped to breathe by creating and maintaining an air passage to his nose. This is done by using two fingers or the hand to press back the wall of the vagina from the baby's face. In this position he is able to breathe and can live for an indefinite period of time until the doctor arrives to complete the delivery.



Delivering the head in a breech birth. The finger in the mouth is being used ONLY to press the chin toward the chest—NOT to pull the baby out. The other hand, on the belly wall behind the head, is pushing the head out. (This need only be done when it doesn't come by itself—see text.) The mother is still on hands and knees.



When the head is stuck in a breech birth, the attendant makes an airway for the baby to breathe. If this can be accomplished, he can wait indefinitely for the doctor to arrive. The mother is still on hands and knees.

It should be repeated that this process of assisting in a breech delivery should be readily given up by the attendant at any time it becomes apparent that further progress can only be made by the use of excessive force. It certainly reflects no discredit on anyone to recognize his limitations. To proceed with a brutally difficult delivery and thus risk destroying the mother's life as well as the baby's is something that no man is asked to do.

If it is impossible to complete delivery of the breech baby or to make an airway for him to breathe (this would be a rare case) the baby should be baptized by pouring water on his bare skin while saying "I baptize thee in the name of the Father, and of the Son, and of the Holy Spirit."

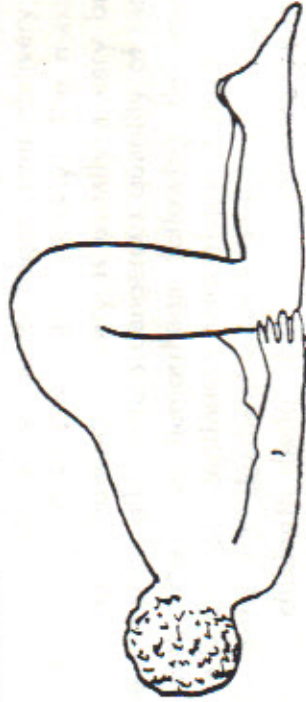
### Hand First — Get to Hospital

If a hand should present at the vulvar opening, with no sign of the head, the attendant should know that the labor is a mechanically impossible one, unless the baby is very tiny, and that the woman must be gotten if possible to a hospital. The reason is that the appearance of the hand alone shows that the baby's body is wedged crosswise in the birth passage and that the shoulder and

hand are pointing downward with the head shoved off to one side of the passage and the body to the other. The doctor must solve this problem either by turning the baby and bringing it out feet first, if that is possible, or by Caesarean section.

### When the Cord Comes First

If the cord should fall out of the vagina alone or with a hand or foot, it should be wrapped in a warm, moist towel in a loose way so that it is not pressed on. Remember that the baby's only source of oxygen is through the cord until it is born. If the birth is almost complete and the woman is feeling a strong desire to bear down, she should be encouraged to assist the delivery by bearing down as quickly and as hard as possible (except in the case of the hand presentation) because time is important to baby when the cord has come first. If the mother does not have a desire to bear down, nothing should be done except protect the cord in the manner described; the woman should be placed in a knee-chest position and brought to a hospital as soon as possible.



The knee-chest position—to be assumed by the woman on her way to the hospital when the cord has come first and the baby is not born. (Do not confuse with hands-and-knees position used to help breech births.)

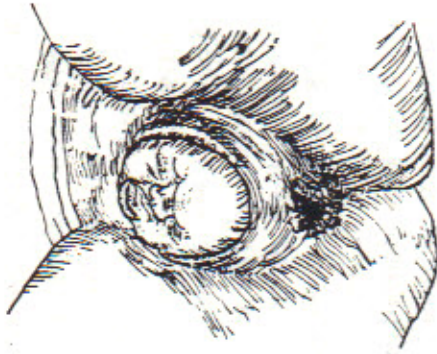


## Chapter 4

### HEMORRHAGE

Hemorrhages before delivery are usually due to one of two causes: separation of the placenta from the wall of the womb before the proper time for separation; or a placenta that is attached at or too near the mouth of the womb. These hemorrhages before delivery tend to be repeated episodes rather than continuous. Even though the first bleeding may be very profuse, it is almost never fatal. It should, however, always be accepted as a grave warning of a need for immediate hospitalization. The emergency attendant can hardly hope to cope with this emergency obstetrically, although he may take certain measures (to be discussed later) to combat the results of hemorrhage ("shock") while the patient is on the way to the hospital.

Hemorrhages after delivery are more common and will more often need to be dealt with by the emergency attendant. Fortunately, hemorrhages after delivery of the baby rarely kill the mother quickly. The massive hemorrhage following delivery is usually a very brief one and shuts off before a dangerous quantity of blood is lost. The fatal hemorrhage following delivery is usually the slow, continuous hemorrhage. A recent study of a series of 52 deaths of women from hemorrhage following childbirth disclosed the fact that none of these women died within the first hour and a half after delivery. This means that the emergency attendant will almost always have the opportunity to secure proper medical aid in such a case.



This baby is being born face first. Notice that the face is swollen from pressure. The appearance will improve in a couple of days.

Head presentations of any sort will ordinarily cause the attendant no difficulty. A normal delivery in which the head is born first with the face toward the mother's anus has been described in some detail in Chapter 2. If the face is upward, toward the mother's belly, or if the face appears first in the vulvar opening, these differences would still be handled as a normal headfirst delivery.

### Twins

Twins are delivered in the same manner as single babies, one after the other. The attendant will meet with no difficulty in twins which has not already been considered under other headings. The diagnosis of twins beforehand is not of great practical importance to the attendant. If he recognizes after the first one is born that the uterus still is large and has another baby in it, he will have done well. He will, of course, suspect twins in any case where the woman's abdomen is unusually large for the period of pregnancy, particularly if this is combined with an early labor.

While waiting for the doctor to come or the patient to arrive at the hospital, there are certain things which the attendant can do to help to control the hemorrhage. If the afterbirth has not been delivered, he should attempt its delivery by the method previously described in Chapter 2. In other words, he should feel the womb through the abdominal wall. If it is soft, he should massage it until it tightens up and becomes hard, and then make gentle downward pressure on it to press out the placenta. It should again be stressed that massage or pressure to a degree which is extremely painful to the woman is likely to increase bleeding rather than decrease it, often by delivering part rather than all of the afterbirth. However, if the pushing on the tight, hard, contracted womb is kept within the limits of the woman's comfort, no damage will be done.

### Control of Excessive Bleeding

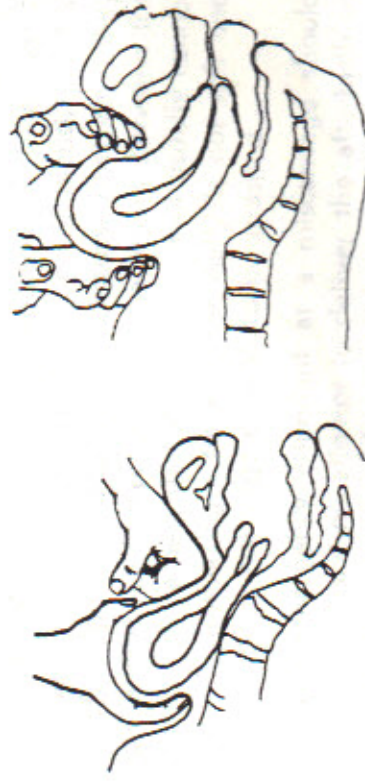
After the afterbirth has been delivered (or even before, if it cannot be delivered by the above methods), the woman who is bleeding by the above methods, can be given medicines at hand for stopping bleeding, such as two tablets of ergot; or a solution of pituitrin on a cotton applicator may be placed in the nose. However, these measures will seldom be available and should always be secondary to the mechanical measures—aid in delivering the placenta, already described, and compression of the womb between the two hands of the attendant.

Compression of the womb to stop bleeding can be done by inserting the edge of one hand beneath the womb on the abdominal wall just above the bone which marks the lower limit of the abdominal wall, the other

hand being placed above the womb. The womb is now held between the two hands, and after gentle massage has caused it to harden, it may be held pressed very firmly between the two hands for at least five minutes—longer if the bleeding starts again when the pressure is released.

Pressure on the vulva is useless unless the bleeding is clearly seen to be coming from external tears—a very unusual source for heavy bleeding. Gauze or cotton packing should never be stuffed into the vagina except by a doctor.

The differentiation between normal and abnormal bleeding must be made by the attendant from the amount of blood passed rather than from the rate. As has been stated, a woman may bleed very fast for a short time



Two methods of using pressure on the empty uterus to control bleeding. The belly wall is extremely relaxed after birth, so that it may be pressed in as shown without force. The womb is pressed just hard enough to stop the bleeding. The upper hand should firmly massage the womb to keep it hard. Notice that the fist in the left picture is pressing the womb upward and against the backbone.

after delivery, but if the total amount lost is well under two cups, no special measures need be taken.

### Learn to Estimate Blood Loss

Policemen, ambulance attendants, Civil Defense personnel, and others whose work may place them in these situations may gain experience in estimating the amount of blood lost by having one of their number pour out a measured amount of blood or colored liquid on the floor or on a pile of linens or in a toilet bowl and getting the others to guess the amount spilled. For this purpose many hospital blood banks will supply a pint or more of blood no longer useful for transfusion because of its age or accidental contamination.

The general treatment of the results of hemorrhage are those described in any first aid manual or course. The woman who has hemorrhaged and who has rather chilly, sweaty, pale skin, heavy breathing, excessive thirst, and weakness, is a woman who is in shock. She should be kept lying down, preferably with her feet up. She should be made comfortable as to temperature; it is better for her to feel a little cool rather than a little too warm. Plasma may be used if available, and if the person using it knows how to administer it. One quart of water containing one level teaspoon of salt may be given the patient to drink. If it is available, one-half teaspoon of baking soda should be added to the salt water. If this is consumed, it may be followed by tea or coffee with sugar but without milk or cream. Anything given by mouth should be noted and reported to the doctor or hospital.

It must be stressed again that hemorrhage of more than two cups of blood is an emergency of the most serious nature—one which happily usually does respond quite

promptly to the proper measures. But proper medical attention, including hospitalization when at all possible, must be given at the earliest possible moment.

The placenta and any other solid matter, such as clots, should be put in a clean jar and placed in the refrigerator to await the doctor's inspection, or brought to the hospital with the woman if it is possible to transport her there. (This applies no matter what the length of the pregnancy.) In any case of hemorrhage, the blood-soaked pads, towels, and so on should also be saved to show the doctor.

### Miscarriages

Miscarriages usually take place before three and a half months of pregnancy. (Miscarriages are always called abortions by the medical doctor, even when there has been no deliberate interference with the pregnancy.) They are almost always accompanied by bleeding. If this amounts to more than two cups of blood, p Pituitrin and/or ergot should be given as discussed before, if they are available. Compression of the womb between the hands will be helpful if it can be done—it usually cannot in early miscarriages because the belly is not soft and the womb is not large enough to be grasped.

The emergency attendant at a miscarriage should ordinarily make no attempt to deliver the afterbirth as in normal birth; it is seldom possible to do so in this way because at the stage of pregnancy at which women miscarry, the placenta is small and more intimately united with the wall of the womb than is the case later on. Proper medical attention is required whether or not the bleeding is excessive, but it is not urgent that it be immediate in the absence of excessive bleeding.

## Chapter 5

### SPECIAL CARE REQUIRED BY SOME BABIES

The normal birth of a normal baby has been described in some detail. It is important to give the emergency attendant a way of distinguishing between a normal baby and one which will require special help to start life in the outside world.

The normal baby is pink or purplish, has a good deal of tension in his muscles, tends to hold his arms and legs rather stiffly, and resists external efforts to move them. He will make a face when his face is touched. If held with the face down and to the side as previously described, to allow him to cough out any mucus that may be in his throat, and stimulated gently by rubbing of the attendant's hand up and down his spine, the normal baby will breathe and cry within three or four minutes and can be put aside in a safe place while the attendant returns to the care of the mother.

#### Pale, Limp Baby Is in Danger

The baby who is born pale, pale blue, or white, and limp, with no expression in the face, no movements in the limbs, no tendency to resist outside efforts to move his arms and legs—this baby is already seriously embarrassed and may need help in breathing.

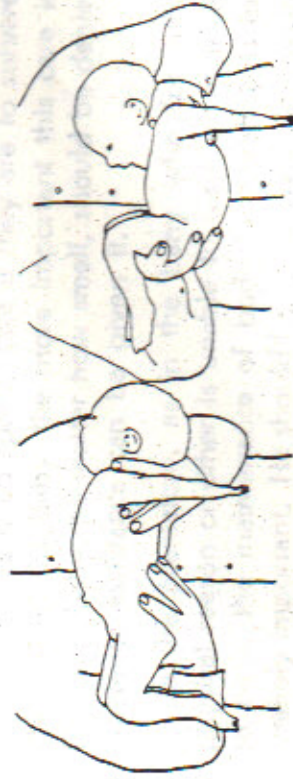
This baby's mouth should be wiped out with a clean cloth to start with. Some high ranking experts in this field believe that this is all that can or should be done. They have reasons for thinking that any baby who can

take his first breath will do so; that any baby who cannot draw the first breath himself cannot have it done for him. Practically, this means that the emergency attendant may with a clear conscience wipe out the baby's mouth, wrap him in a blanket, and put him aside, no matter how bad his condition. Or he may, as the author would, try to help the baby breathe.

#### Artificial Respiration

Artificial respiration, if used, must always be extremely gentle in the case of a newborn baby, which is subject to injury if there is any rough handling. If gentle efforts do not succeed in helping him to breathe, he cannot be helped. This means that he should not be slapped or dunked in water or forcefully squeezed, swung about, or otherwise manhandled.

The following method of artificial respiration should be used with a newborn baby: the baby's body is held in the two hands of the attendant, with the palms up underneath the body—one hand under the hips, the other under the shoulders and head, holding the head in a middle position so that it is neither crammed down on



Giving artificial respiration to a newborn baby. The rate should be approximately twelve per minute.

the chest nor dangling far back. The two hands holding the baby are gently raised, turned, and brought partly together so as to bend the hips toward the shoulders, bending the whole body like a hinge to the point where the tummy is decidedly compressed. The hands are then straightened and let go outward a bit so that the baby's body straightens. This will produce movement of air into and out of the lungs. The approximate rate should be twelve per minute, or once every five seconds.

Mouth-to-mouth artificial respiration, recommended by the American Red Cross, is also suitable if the attendant is trained in this method as applied to infants.

The artificial respiration should be continued until the baby begins breathing on his own. Efforts should be continued during this whole difficult situation to procure the services of a doctor or to get the baby to a doctor.

The methods described will in the majority of cases not be found wanting. In the occasional case where the baby fails to rally, other methods would not be more likely to produce success. If the police or fire department can bring in an oxygen unit, this is a good supplement to the artificial respiration. It does not by any means supplant it. Mechanical emptying and filling of the lungs must proceed no matter how rich the atmosphere is in oxygen; but with good artificial respiration, oxygen properly applied can be a help.

The proper application of oxygen for the newborn consists of delivery of a steady stream of oxygen at a fairly slow rate to the region of the face. On no account should a mask be clamped tightly against the baby's face, nor should a high-pressure stream of oxygen be blown into his face.

## Anyone Can Baptize

In those cases where resuscitation is unavailing and it becomes evident that the baby is dying because he cannot breathe by himself, and the heartbeat as felt on the ribs on the left side is becoming fainter, weaker and more irregular, it is important to the eternal destiny of the baby that he be baptized. Parents of those Christian groups believing in infant baptism will be consoled greatly if the baby has been baptized. This can be done by anyone—man or woman, believing Christian or not—so long as he or she does this simple procedure properly. The baptism is accomplished by pouring water on the bare skin of the baby, if possible on his head, while saying, "I baptize thee in the name of the Father, and of the Son, and of the Holy Spirit." This exact form should be used because it is acceptable to those of almost any Christian group believing in baptism, including Catholics.

Efforts at revival should be continued, of course, during and following such a baptism.

## Prematures Need Special Care

Prematures need special care if they are to survive. The smaller the baby, the more important this care is. No living baby, no matter how small, should be denied whatever assistance can be given it.

In the premature, as in the baby who for some physical reason or other is unable to respond normally to birth, the maintenance of body temperature is extremely important. He should be wrapped up in a warm blanket as soon as he breathes well and kept in a place where the temperature is 90°. Supplemental oxygen has

certain special dangers for prematures. It should never be used unless there is real difficulty in breathing, or a deep blue color, and it is even more important in the case of the premature that the delivery of the oxygen be slow and gentle rather than blown in a stream on his face.

In many large cities and the places adjacent to them a portable incubator service is available; public agencies will pick up the baby with a temperature-controlled, oxygen-supplied incubator and rush him to the nearest premature station. These facilities should be taken advantage of wherever they are available. (Whom do you call for such a service in your town? Find out and enter the information on page 61 of this **Manual**, along with the other information applying to your local situation. The doctor you call may not know this, and valuable time may be lost finding out where to call for this emergency help unless you have entered the information in your **Manual**.)

Any baby less than five and a half pounds should be considered premature. In many cases, of course, the emergency attendant will not have facilities for weighing the baby; he must then judge its maturity by the history the mother gives and by the baby's appearance. If the length of pregnancy is less than 36 weeks, the baby must certainly be considered premature. The appearance of the premature is very decidedly different from that of the full-term baby. He is much thinner, smaller, redder; the head is relatively larger; he is less likely to have quite as much head hair, and the fingernails are usually shorter. (These last two signs are not reliable enough to place too much credence in them by themselves.)

These comparative differences are not of much help to an emergency attendant who has seen few or perhaps

no newborn babies. In his eyes, a normal, husky infant which would appear beautiful to a physician or midwife might seem very tiny and unfinished indeed. If you are not familiar with the appearance of newborn babies, study the pictures of full-term and premature infants with some care, and try to arrange to see several babies in the first few days of life.



This is a full-term baby.



The premature baby is thinner, smaller, and redder than the full-term baby.

## Chapter 6

### **PREGNANCY, LABOR, OR DELIVERY COMPLICATED BY ILLNESS OR ACCIDENTAL INJURIES**

In general, a pregnancy complicated by illness or accidental injury is to be handled according to the rule: "Treat the illness or the injury as though the pregnancy were not present; treat the pregnancy, labor, or delivery as though the illness or injury were not present." This rule, of course, has exceptions; but they are rare.

#### **Eclampsia (Convulsions)**

Among the illnesses complicating pregnancy the first to mention is one connected directly with the pregnancy—the so-called eclampsia or convulsions of late pregnancy. This is the final stage of an illness which starts out with the appearance of certain abnormalities in the urine, detectable only by tests, a rise in the blood pressure, and an abnormal amount of swelling in the ankles, and sometimes in the hands and around the eyes.

This condition can usually be brought under control early in its course if the woman is receiving adequate prenatal care. However, the emergency attendant may occasionally run into a woman who has not had adequate prenatal care (or, more rarely, a woman in whom the condition has appeared suddenly in spite of previous care), and will be faced with the situation of aiding a woman in late pregnancy, perhaps in actual labor, who is having convulsions.

If the woman has a history of lifelong epilepsy, the case is not likely to be eclampsia. But if the convulsions

have appeared only in late pregnancy, special treatment is called for. She should be taken to a hospital, or a doctor should be brought to her as quickly as possible. He will give her sedatives, glucose, and other medical treatment.

If the woman is taken to a hospital, the manner of transportation is of great importance. Anyone with a convulsive disorder should be transported with utmost gentleness even though time is thereby sacrificed. Quiet should be maintained in so far as possible. The patient should be shielded from any strong light. The vehicle used to transport her should be driven slowly and with extreme care to give a smooth ride. Frightening as this condition is, and anxious as you may be to get the patient to the hospital, it is worth repetition for emphasis: the driver must concentrate on giving a smooth ride rather than a fast one.

#### **Other Illness**

Women with other medical conditions complicating pregnancy, such as heart disease, will be handled according to the rule stated originally: treat each of the conditions as if the other were not present. If oxygen administration to the mother seems desirable from her breathing, it may be undertaken in the certainty that it will do no harm to the unborn baby and possibly may do it a great deal of good.

#### **Accidental Injuries**

If a pregnant woman or a woman in labor is involved in injuries, as in an automobile accident, the general principles of first aid must be followed. Cessation of breathing of course takes priority and is a condition re-

quiring treatment before any other. Artificial respiration may be given to the pregnant woman as though she were not pregnant. The old method approved by the American Red Cross—back pressure and arm pull—is entirely suitable, even though it means putting the pregnant woman on her abdomen. If this is done gently, no harm will ensue. Mouth-to-mouth resuscitation is probably even more effective.

Following the production of good clear breathing, the stopping of hemorrhage is next in line of importance. Hemorrhage of an obstetrical nature has already been considered. Nonobstetrical hemorrhages from severed arteries will be taken care of in accordance with the general principles of first aid.

Shock from injury will be treated as would shock in the non-pregnant woman.

If a woman in active labor is injured, ordinarily treatment of serious injuries will take precedence over any services which would be performed to aid the labor or delivery. If both can be handled simultaneously, so much the better. If this is impossible, the serious injuries get the attendant's attention even though an entirely unassisted delivery may be proceeding at the same time that hemorrhage is being stopped or artificial respiration given.

In cases where a woman in late pregnancy is killed suddenly—for example, one whose head has been cut off by the wheel of a streetcar—the baby can be saved if it is delivered by Caesarean section within a few minutes. Any doctor present would do this with any kind of knife. Since the mother is dead, nothing need be sterile and hemorrhage is no danger. The doctor merely cuts quickly through the belly wall and then through the wall of the womb. This is a life-saving oper-

ation, and no permission of relatives is needed. Speed is essential, and there would be no time to make lengthy explanations to bystanders. An emergency attendant could be of real help to the doctor by preventing interference.

In a multiple accident where there are many injured, the same general principles are followed as in the single case of injuries and labor with imminent delivery. In other words, if on arrival at the scene of an accident one finds that a woman is having a baby, someone else is bleeding profusely, and a third person has stopped breathing but still seems to be alive, the person who has stopped breathing gets first priority, the person who is bleeding heavily gets second priority, and the woman who is delivering a baby gets help only when all possible aid has been given the other two. This is not heartless; this is not exposing her to any unnecessary risks. Rather, it is an attempt to do the best thing for all concerned. If things are proceeding normally, the woman actually is in no need of attendance from the point of view of saving her life, while the other two obviously are.

### Disaster Conditions

Multiple injuries might prevail on a wide scale under disaster conditions—large fires, explosions, bombings, and so on. Under such conditions, the ordinary advantages of home delivery of the baby are multiplied. The facilities of even a large hospital are quickly and completely engaged by even a moderate number of burn and blast cases. Especially when this is the case, the mother can get more care at home.

In the event of the bombing of a city with nuclear weapons, any other course than home delivery for



the handling of normal obstetrical cases would be unthinkable. In addition to the overcrowding and relative understaffing of the hospital, the increased risks in assembling large groups of mothers and babies in a city probably subject to repeat bombings would be unjustifiable. Perhaps worse than this would be the great probability of epidemic disease among them. This can only be prevented by adequate well-trained personnel and heat, light, power, and water facilities. Few if any of these would be available in a bombed city. Bacteriological warfare might increase these problems. And finally, bringing a woman in labor to a hospital might subject her to risks of blast, burns, or radioactive fallout on the way which would not have reached her in her basement at home.

Experience at Hiroshima seems to indicate that 27 per cent of surviving pregnant women within two miles of ground zero may abort or deliver prematurely; 10 per cent of those between two and three miles. These percentages would of course be greater if more powerful bombs were used.

Under major disaster conditions, all new mothers must be told that the baby's survival will probably depend on his being breast fed. Interruption of supply services (water, milk, heat, electricity, and so on) and contamination of available supplies will probably cause many deaths among babies artificially fed.

### CONDENSED INSTRUCTIONS FOR EMERGENCY USE

The information on the following pages is arranged for quick reference in an emergency. It is for the use of those who have studied the Manual but who may need to be reminded of the essential points when faced with an emergency situation.

Page references are to the fuller explanations in the text.

## MOTHER IS IN LABOR

**PAINS OR CONTRACTIONS** Pages 11-15, 20-22

Far apart (10-15 minutes)—delivery may be hours away.

Close together (2-3 minutes)—delivery may be minutes away.

To relieve pain: mother should make every effort to go limp (loosen all her muscles) during the contraction. Do NOT use drugs or any sedatives unless the doctor orders them.

If pain is accompanied by urge to move bowels, the mother may be ready to deliver. Don't allow her to use the toilet at this time—use newspapers or bedpan.

## BAG OF WATERS BREAKS

Page 11

If mother has not been in labor, she probably will be within 48 hours.

If mother has been in hard labor, gush of waters may signal coming delivery—prepare.

## BABY IS SEEN

Pages 16-17, 18-21

Face, head, leg, or buttocks appear in stretched opening. Have mother remove lower clothing and take position for delivery. Place newspapers under mother and have clean blankets or towels ready to wrap baby. Wash your hands.

## CORD

Pages 24, 25

During birth, do not attempt to unwind cord around neck. Wait until birth is complete. After baby is born, cord should NOT be tied and cut at once.

Cut on this line

## BABY IS BEING BORN

### HEAD IS BORN

Pages 21, 22

Do NOT pull on head.

Strip off water bag if it covers baby's face—use fingernails, pin, or any sharp instrument. Wait for two contractions for shoulders to be born.

If baby cries, wait for shoulders to be born naturally.

### SHOULDERS STUCK (very rare)

Pages 22-23

If baby does NOT cry, and if mother has worked (bearing down hard) through two pains to deliver shoulders without succeeding, help by pressing on belly during next two pains.

If shoulders are still not out, hook your finger under arm of baby toward mother's back and pull out baby spirally, turning hooked shoulder toward baby's face to front of mother.

### BABY IS BORN

Pages 24-27

Unwind cord from neck if need be. Place baby on a clean cloth between mother's legs—face up or on side for easier breathing. Leave natural grease on baby.

Cut on this line

## BABY IN BAD CONDITION

### HAND BORN FIRST

Pages 32-33

Delivery by ordinary means is impossible. Doctor will have to turn baby or do a Caesarean. Get patient to hospital.

### CORD BORN FIRST

Pages 33-34

If cord is born before baby, and mother has urge to move bowels with contractions, urge hard bearing down to deliver baby quickly.

If mother has no urge to bear down, place her in knee-chest position to take pressure off cord and get her to a hospital. Have the cord wrapped loosely in warm, wet, clean towel.

### BUTTOCKS OR LEG APPEARS

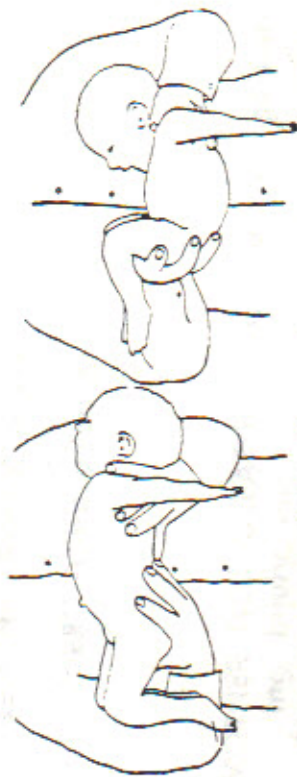
Pages 28-32

1. Help mother to hands and knees and guard her and baby from fall.
2. Do not pull on baby.
3. After navel appears, encourage mother to bear down (as if forcing out a difficult bowel movement) as hard as she can during and between the next two contractions.
4. If this does not deliver the baby, many doctors would advise attendant to attempt nothing further. You cannot be criticized for following their advice. If you feel competent to give further help, do so. (See pages 29-32).
5. If the delivery cannot be completed, baptize the baby.

### BABY NOT BREATHING

Pages 40-42

If baby is purple, holds arms and legs stiff, and makes faces—wait—he will breathe. If baby is white or pale blue and limp (looks almost dead), wipe out mouth with clean cloth (never do this with normal baby) and give artificial respiration, as shown.



Rate: 12 per minute

### BAPTISM

Page 43

Baptize any infant or embryo in immediate danger of death. Anyone can baptize.

Pour water on the baby's bare skin, preferably his head, while saying, "I baptize thee in the name of the Father, and of the Son, and of the Holy Spirit."

Continue efforts to save baby before, during, and after baptism.

# MOTHER ILL OR INJURED

## MOTHER IN ACCIDENT

Pages 47-49

Treat injuries as though pregnancy did not exist.

Treat labor as though injuries did not exist.

**LACK OF BREATHING**—First priority

**BLEEDING**—Second priority

**DELIVERY**—Third priority

**MOTHER NOT BREATHING** due to gas, poisoning, injury, etc.

Give artificial respiration as taught in American Red Cross First Aid Class.

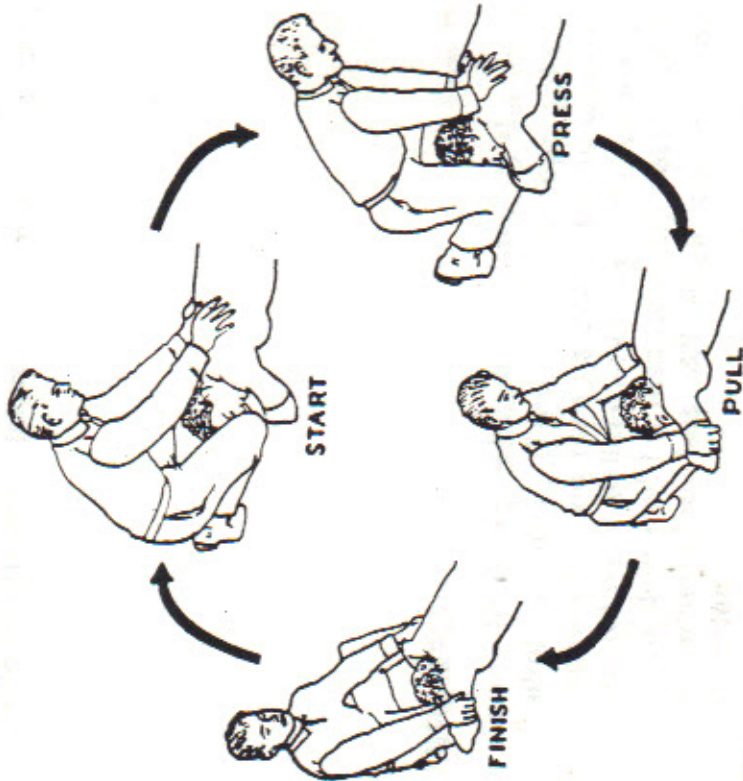
## MOTHER IN FITS (CONVULSIONS)

Pages 46-47

Get a doctor to the patient or patient to hospital, whichever is quicker. Keep patient quiet and handle gently. Ride to hospital must be smooth. Sedatives may be given as per phone instructions of doctor.

If mother is not breathing, use the method of artificial respiration you have learned in first aid classes, preferably mouth-to-mouth. If you cannot recall the instruction, do this:

1. Clear woman's mouth and throat with your finger, making sure there is no obstruction.
2. Place in position shown and alternately press on upper back and lift arms, as shown, about 12 times a minute.



## SHOCK

Page 38

Woman is pale, sweaty, weak, breathing hard, and thirsty.

Keep patient cool (not uncomfortably so).

Keep patient flat with feet up.

Give plasma in vein if available.

Give water with one teaspoon salt to quart (add one-half teaspoon baking soda if you have it) to patient to drink.

Follow with coffee (no cream or milk—sugar O.K.)

## MISCARRIAGE

Page 39

Excess bleeding, difficult to control, is the most likely problem. If more than two cups, get the woman to a doctor or a doctor to the woman. Do not try to deliver anything, but save everything delivered for inspection by doctor, with estimated blood loss. All miscarriages must be reported.

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## BLEEDING

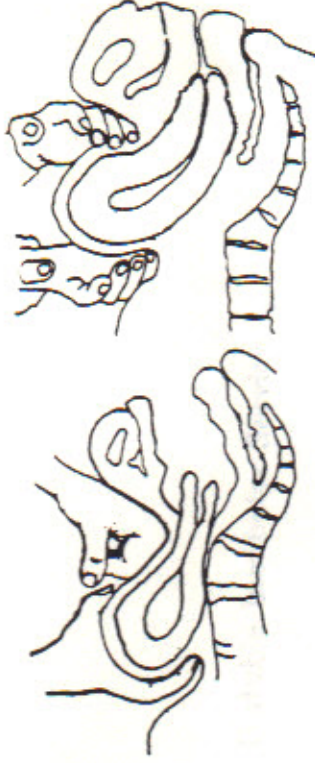
### BLEEDING

Several spoonful of blood mixed with mucus (like red currant jelly) before or during labor—perfectly normal. Page 10

Free bleeding before birth—get patient to hospital or get doctor to patient (only if hospital is impossible.) Treat for shock if necessary. Page 35

After baby is born: if more than two cups are lost—while waiting for doctor or while taking patient to hospital, massage uterus through belly wall until hard, then press out placenta (gently!) Baby at the breast will help. Pages 26-27, 36

If placenta is out, control bleeding by pressure on uterus between two hands as shown in drawing. Pages 36-37



Treat for shock if necessary.

Save placenta and clots in jar in ice box for doctor, or bring to hospital with woman if she goes. Also save blood-soaked pads and linens for doctor to see. Page 39

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