

# MANUAL

**BIX/F52 Childbirth Mechanism Teaching Model**



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**Ada Med Supply Limited**



## BIX/F52 Childbirth Mechanism Teaching Model

- \* Before starting to use this model, please read and follow the instruction for practice.
- \* When using the model, in the same way for patients to nurse and consider problem.
- \* After reading this instruction manual, if you have any questions, please contact with our company.

### Preface

Childbirth Mechanism model, whether in teaching or childbirth techniques on patient care is a valuable teaching tool. This manual only provides a general guidance for obstetric techniques, including:

- \* Fetal head, shoulder, back, knee and elbow palpation
- \* Normal vaginal delivery, cesarean section, Single breech position, single foot position, Ritgen maneuvers.
- \* Multiple pregnancy, comprising: a two-headed, head-breech, buttocks-head position, double-breech position, umbilical cord prolapse
- \* Placenta previa: the middle, portion and the marginal fetal aspiration (can take any position for aspiration)

This versatile model also includes special techniques, such as: Leopold techniques, the expansion of the cervix, in order to adapt to the different mode of delivery, the baby is composed by 19 joint components.

This model can be placed a fetus in any position, to emulate a real birth scenario, with more anatomical landmark on the life-size pelvis. The peritoneal cavity is open, flexible abdominal wall "cover" can be removed, the birth canal is normal size, vulva and perineum are made of a soft material, can be replaced if necessary. This model provides two fetuses in order to practice palpation and various forms of birth fetal position. Each fetus is about 19 inches, with a corresponding mark, such as: halogen door (in the first part of the soft top, which is unfused skull), eyes, nose, mouth, ears and touch to the spine. The fetus has a blue analog umbilical vein and two umbilical

artery, the red color of the placenta and the umbilical cord can be separated by Velcro paste maternal abdominal cavity inner wall. Placenta can be placed in multiple locations, to simulate a location of the placenta. Remind, in the simulation during delivery to the fetal head, shoulder apply a lot of talcum powder, this facilitates the delivery went smoothly, while making it easier to teach after wiping model.

When using this model simulate placenta previa, the placenta in accordance with the wishes of the individual simulated placed complete, partial and marginal placenta previa, on the uterine wall at the entrance of the womb. The fetus in the uterine cavity should be connected to the placenta.

"Breech presentation" refers to fetal hip or knee and foot first exposed part is called the breech. There are three types of breech: One breech, complete breech, feet first exposed.

One breech is also known as frank breech presentation fetal flexion double cross, double knee toward the fetal head straight to first exposed buttocks.

complete breech is breech presentation, fetal lower limbs knees bent cross.

feet first exposed is fetal single leg or both legs exposed first.

Breech presentation is diagnosed during the fetus palpation or prenatal examination, usually in the third trimester of pregnancy or before childbirth. Fetus in utero can naturally turn into different positions, also can operate outside the abdominal wall.

Childbirth can be divided into cephalic and breech presentation, fetal descent, will be at the bottom of the pelvis (pubic symphysis below) carried out in various parts of the carcass, the maximum diameters of the fetal head, fetal buttocks small. Breech delivery can be divided into distinct fetal hip, the shoulder, the fetal head three step drop, and often need to use forceps. Although also from the breech vaginal delivery to the fetus, but once diagnosed is a breech, caesarean section should be considered



implemented, this will reduce the percentage of fetal umbilical cord prolapse or intrauterine asphyxia due deaths

## **Maintenance**

The maintenance of the model really looks for the same patient. After using the model need to clean up, remove all the run traces of lubricant, the model can be cleaned with a mild detergent or soap and water, do not rub the rough agent used to clean. After washing thoroughly dry.

- 1) You can use a mild detergent or soap and water to clean the skin
- 2) Do not touch the ball-point pen, ink, or markers, they will not be removed leaving traces
- 3) Do not use paper packaging model
- 4) can not be applied on the model iodine, other similar products can not be painted
- 5) Improper storage will cause damage model - the model should be placed inside the box
- 6) Do not stack boxes or placed on the box too heavy items
- 7) The model packing in a cool place and make sure it is intact.

If the placenta appears damaged, you need to take measures to detect the uterus, placenta and the residue taken in order to avoid serious bleeding.

In this model, the third stage of the separation of the placenta from the mother is mainly the abdominal cavity through the vaginal opening, and removed from the vagina, or pull the middle of the placenta umbilical cord can also be placenta. When the technique is probing the uterus by hand to reach the vaginal opening to the pelvic

## **Cesarean Section**

Caesarean section incision through the abdomen and uterus to the fetus way. Caesarean section, also known as cesarean delivery. It may be due to breech,

prolonged pregnancy, childbirth weakness, fetal distress, cord prolapse, placenta previa, placental abruption or other abnormal situation and take a mode of delivery.

Caesarean section is in the belly incision into the abdomen. There transverse incision vertical incision. Transverse incision in the lower abdomen is a very narrow horizontal row mouth, lower than pubic wool. Vertical incision is made in the belly button and the pubic symphysis between the edge of the incision. Vertical incision, also known under the incision, close to the center is often used. When teachers teach cesarean section, you can remove the pubic symphysis snaps, showing the fetus from the navel to the pubic out jointly between labor

"Umbilical cord prolapse" is a very dangerous complications. It is not in the fetus before birth, a phenomenon first from the birth canal umbilical cord prolapse. This occurs due to the breech, transverse position, the fetus is too small, the umbilical cord is too long, low placenta or other unusual circumstances arise. After the umbilical cord prolapse, fetal distress syndrome occurs often, because every contraction of the uterus so that the umbilical cord will be squeezed in between the mother's pelvis and first exposed, if the blocked blood flow in the umbilical cord, it may cause fetal death. If the umbilical cord at birth canal outside can be observed that with a gloved hand into the birth canal, lifted first exposed part to relieve umbilical cord compression. This step should be maintained until the prolapse is resolved, either by lift or first exposed to a cesarean section to solve all right.

"Placenta previa" refers to the location of the placenta in 1/2 of the uterus, cervix are often located near or in the mouth of the cervix, which is the birth canal path. There are three types of placenta previa:

- (1) complete placenta previa: the mouth of the cervix are all placental tissue coverage.
- (2) partial placenta previa: placenta partially covered the mouth of the cervix.
- (3) marginal placenta previa: placenta attached to the edge of the lower uterine

segment, even inside the mouth of the cervix,

But not exceeding the cervix inside the mouth.

In the three months before delivery, often with the open mouth of the uterus or during childbirth, the placenta detached from the uterine wall and cause bleeding. Once placenta previa is diagnosed, if necessary, immediately caesarean section

#### **The model includes the following components:**

2 fetal 2 placenta 2 umbilical cord

The umbilical cord is connected to the corresponding analog fetus and placenta after the baby talcum powder coated body cover abdominal wall;

Exercise four palpation.

With Childbirth Mechanism Teaching Model for fetal palpation

Each embryo can be placed in the abdominal cavity palpation, if you want to touch the spine, the fetus will be face down on the abdominal cavity, the abdominal wall covered with "cover" and gluing glue gently in the abdominal wall the touch, the length of the spine until the touch. When you want to touch the head or facial features, put the baby's face upward on the abdominal cavity. The above process can be repeated practice. You can also put the fetus in the abdomen into various parts of the first exposed (the fetus is a part of the first arrival of the birth canal) may be a bit head (cephalic) or breech.

#### **Normal delivery**

Delivery in three stages, the first stage from regular contractions start to open the cervix is completely full; the second phase from fetal see fetus to full delivery out; the third stage is the child delivery after completely delivered to the placenta. The placenta is a round organization that offers in intrauterine fetal nutrition.

**The first stage** can be divided into the incubation period, active period and the

transition period, the incubation period is from regular contractions begin, when the cervix has disappeared, the cervix can open big 3 ~ 4cm, thin and short cervix the time required for the phase change vary widely, primipara (first pregnancy) is generally between 1.3 to 11.5 hours, but it will not be more than 20 hours; maternal (not just the first pregnancy) incubation period generally maintained at 1 to 9.7 hours, but not more than 14 hours.

During the incubation period, the number will increase uterine contractions, duration and intensity can be increased. Gradually increases beginning, every 15 to 30 minutes once a contraction, for 15 to 30 seconds. Advances in the contraction of moderate and, at intervals of 5 to 7 minutes until a contraction for 30 to 40 seconds.

In the active phase of the cervix, the cervix can expand to 10cm (about 4 inches), then the fetus is fed and accelerated the birth canal, cervix completely disappeared (the lower uterine segment fully expanded), the contraction became more frequent. Usually occur every 2 to 3 minutes once the duration has increased, about 60 seconds, the more intense contractions. The length of the active period of time varies, generally between early maternal 1 to 8.2 hours. And the mothers usually 2 to 4.6 hours. Cervical dilation at a rate of about an hour at the beginning of the expansion of maternal 1.2cm; maternal about an hour expansion 1.5cm. However, when the uterus to expand to 8 ~ 10cm when, although the rate of decrease uterine contractions, and fetal descent rate is increased.

**The second stage**, the stage is from the cervix to the fetus is fully delivered. The time required for this phase: primipara more than one hour in total may be less than 3 hours. The mothers generally 15 minutes, it may be 30 minutes. Every 2 to 3 minutes a uterine contraction, for 60 to 90 seconds. At the beginning of each contraction should encourage mothers to work hard to promote the early fetus is delivered.

Fetus delivery process, six actions:

- 1.Descent
2. Anteflexion
3. internal rotation
4. Extension
5. External rotation
- 6.Birth

Fetal descent is accomplished by uterine contractions, plus maternal straining or "effort", but also the role of gravity (if the mother is a vertical position). Advanced delivery model to remove the diaphragm within the abdominal cavity, the fetal head down when the demo will be placed, and then push the fetus down the buttocks or legs, etc. can be delivered through the birth canal. Gently hold the body of the fetus and higher than the shoulders, to the greatest possible control of the fetus. Before the presentation on the fetal head and the birth canal side evenly spread a layer of lubricant - talcum powder, which can realistically simulate "amniotic fluid" to the fetus through the birth canal smoothly, while protecting the model is not dirty.

Anteflexion, the fetus's head bent toward his chest, the result is the first exposed portion of a smaller diameter appears. Since the resistance of the cervix, fetal pelvis through the entrance into the pelvis is transverse (cross-like form), then go to the occipital below the pubic symphysis. Thus, the fetus in the pelvis, face downward rotation, internal rotation when also can cause fetal face up. Rotating on this model can be manually turn the fetus, so that little by little, into the birth canal.

Extension is occurred in the fetus from the exit of the vagina. With the continued decline in the fetal head, vulva opening up, extending forward, we must now adopt a protection technique, midwife right up efforts to protect the perineum and fetal chin. While encouraging mothers trying hard to prevent retraction of the fetus in between contractions. Left occipital assistance, if too slow contraction, the decline will hinder the rise. Burst on the scene when the fetal head, perineum, anus and vaginal tissue begins to expand, when the maximum diameter portion of the fetal head has reached the vagina. You can episiotomy, episiotomy is an incision in the perineum, to increase

the open vagina, at this time will make delivery easier. While preventing tear injury and avoid overly thrust perineal tissues of the perineum, the fetal head is too stretched. If the fetal head, nose, mouth and chin quickly can cause perineal trauma by perineal. After the fetal head should immediately remove the fetus airways foul. Such as polyhydramnios, smokable net by attractors. Airway clean, the umbilical cord with your fingers ascertain whether the wound in the neck. If there is umbilical cord around the neck, from the head to go around, if wound too tight, usable pliers and cut. Regent approach is to model open hand interpolated into the vagina to help the rotation of the fetus, or the vulva

After the cut and then hand insertion are also available. Talc or a water-soluble silicone spray, which will allow easier delivery model. When the fetal head, shoulder drop, about shoulder parent (birth canal outlet) into a vertical shape, then, should shoulder the center line of rotation (pronation), so that the fetus can easily fall, and passed through the pelvis. When using advanced delivery model demonstration, when the fetal head reaches the opening to the cervix can be rotated by hand into the birth canal.

Birth, external rotation after the completion of the fetal head, fetal start before the shoulder was delivered under the pubic symphysis. Shoulder immediately after delivery by the leading edge of the perineum. This form of delivery, the birthing process can be buffered. Thus more easily delivered before the shoulder, while in favor of upward traction shoulder, then the whole fetus was delivered. Then the umbilical cord with two pliers, a folder near the placenta side and one folder at a distance of about 2cm at the neonatal umbilical, cut in the middle, and the end of the check is cut the umbilical cord to ensure no bleeding. Umbilical cord is an umbilical vein and two umbilical artery components.

When using this model exemplary delivery process, delivery process in the fetal head and shoulders, and should be given to some help. Once the shoulder is delivered, the fetus is small can be a little rest, then you need to gently remove the fetus from the

vagina after delivery, the umbilical cord can be cut or separated. Umbilical vein is blue, the umbilical artery is red, they are wrapped in transparent hose, can be observed through the transparent tube.

The third stage (third stage), the third phase begins after the baby is delivered, while smaller contraction of the uterus, the placenta begins after the baby is delivered, uterine contractions while stripped from the uterine wall. Such slow release, it takes about 5-10 minutes after delivery. The placental separation are four symbols:

1. Fresh blood outflow from the vagina, indicating placental peeling;
2. In the abdomen can be seen rising in the fundus;
3. Spherical shape of the uterus;
4. Vaginal outside their own umbilical cord to extend the decline, indicating that the placenta direction toward the vagina once these phenomena can be observed.

Description capacity, maternal midwife who has delivered the placenta (afterbirth) is simply to help gently pulling the umbilical cord, and a hand soft reduction fundus, the placenta can be delivered. Placenta peeling and delivered in different ways (two kinds): one is the fetal side delivery (placental surface is smooth side), placenta facing the fetus on the more common. There placenta on the maternal side up (also known as the organ surface, the appearance of very rough) rare maternal face on the release of the placenta delivered is often incomplete. Either side is delivered, the midwife who must check the placenta.



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