



## How to prevent premature delivery 如何預防早產(英文)

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Preterm delivery, approximately 5%-10% of all pregnancy, takes place during the 20th and the 37th weeks of pregnancy; they take up 80% of the neonate death. With the advance of medical science, there are new inventions of the medical instrument and medicine, to improve the preterm newborn survival rate. However, neonatal intensive care is expensive and it is usually a heavy burden to both the family and society. If a baby stays in its mother's womb longer, infant survival rate would be greatly increased and sequela risks are reduced; it would then be easier for the parents to foster such a baby and to save up an extensive amount of medical expenses.

Premature delivery is preventable if pregnant women avoid the following conducts to minimize the risks:

- poor nutrition
- smoking, drinking, drug abusing
- overworking
- short interval between two pregnancies
- poor hygiene
- pregnancy at age too young or too old
- underweight before the pregnancy
- artificial abortion
- low socio-economic status

### **Causes of premature delivery:**

Though causes of many premature deliveries are still unknown, some causes are thought to be relevant:

1. Early rupture of membrane: 90% of the early membrane rupture induces uterine contraction within 48 hours and the reason for it is unknown.

2. Infection: 1/3 of the premature delivery has something to do with amnion infection.
3. History of early or late trimester premature delivery.
4. Oversized uterus: having too much amniotic fluid, or giving birth to multiple gestation
5. Cervical incompetence.
6. Abnormal uterus, like double uterus
7. Placenta previa or early placenta separation.
8. Intrauterine device
9. Elective induction; medically-approved for early induction of the baby.

### **Signs of premature delivery:**

Early signs include: persistent lower back pain, increased vagina secretion or bleeding, and uterine contraction. Do not underestimate minor symptoms as well. We thus designed a system assessing risk factors that most pregnant women possess based on their socioeconomic status, past pregnancy history, daily lifestyle, and current pregnancy; and factors are:

1. Women with history of premature delivery: when their 1<sup>st</sup> baby is premature, their chance of having another premature baby is 3 times greater than other mother-to-bes.
2. Cervical dilatation: if the cervix is dilating or thinner during pregnancy, there is a greater chance of premature delivery.
3. Symptoms like lower abdominal pain, vaginal bleeding, and backache.
4. Oversized uterus caused by multiple gestation, overgrown fetus, polyhydraminos, and uterine myoma.
5. Urinary tract infection.
6. Vaginitis.
7. Anemia.
8. Smoking and drug addict.
9. systemic disease.

### **How to prevent premature delivery:**

1. Regular prenatal care: Medical staff would help patients notice any possible conditions that might incur premature delivery.
  2. Avoid long distance travel
  3. avoid overworking
  4. avoid anxiety and agitation
  5. Seek for medical advice as soon as possible if there is premature delivery sign.
  6. adjust activity during pregnancy :
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Maternal condition	Activity
Person with normal pregnancy and no risk factors	No restriction, avoid overworking
patient with premature delivery history, but her current prenatal care shows no cervical abnormality nor uterine contraction are normal.	Mild restriction: <ol style="list-style-type: none"> <li>1. Other than night sleep, take a nap twice daily for at least one hour.</li> <li>2. Avoid severe activity.</li> <li>3. Decrease sexual intercourse after 20 weeks of pregnancy, and condom is strongly recommended.</li> </ol>
Previous premature delivery, cervix dilatation $\geq 1\text{cm}$ or people with uterine contraction.	<ol style="list-style-type: none"> <li>1. Increase bedrest.</li> <li>2. Avoid sexual intercourse 20 weeks after pregnancy</li> </ol>
Multiple gestation, unable to bedrest, cervix dilatation $\geq 1\text{cm}$	Patients should be admitted to the hospital and they can go to restrooms.
Explicit cervix dilatation with amnionic sac bulging out of cervix.	Complete bedrest is required and patients should elevate their hips.

- If premature delivery is unavoidable, within a possible range, patients should go to hospitals providing intensive care facility for neonatal, so premature infants have no trouble receiving thorough proper care.