



Prenatal Care

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How to Reduce **Preterm Birth**



- ✓ Prevention of **teenage pregnancies**
- ✓ Adequate **pregnancy spacing**
- ✓ Early screening for **preeclampsia**
- ✓ Treatment with **low-dose aspirin** in women at risk
- ✓ Single embryo transfer when **invitro fertilization** is used
- ✓ Prevention of **unnecessary cesarian sections**



How to Reduce Preterm Birth



✓ Progesterone



How to Reduce Preterm Birth



- ✓ Progesterone
- ✓ Cervical cerclage



How to Reduce Preterm Birth



- ✓ Progesterone
- ✓ Cervical cerclage
- ✓ **O**mega-3



How to Reduce Preterm Birth



- ✓ Progesterone
- ✓ Cervical cerclage
- ✓ Omega-3
- ✓ **A**ntibiotics



How to Reduce Preterm Birth



- ✓ Progesterone
- ✓ Cervical cerclage
- ✓ Omega-3
- ✓ Antibiotics
- ✓ **M**agnesium **S**ulfate



How to Reduce Preterm Birth



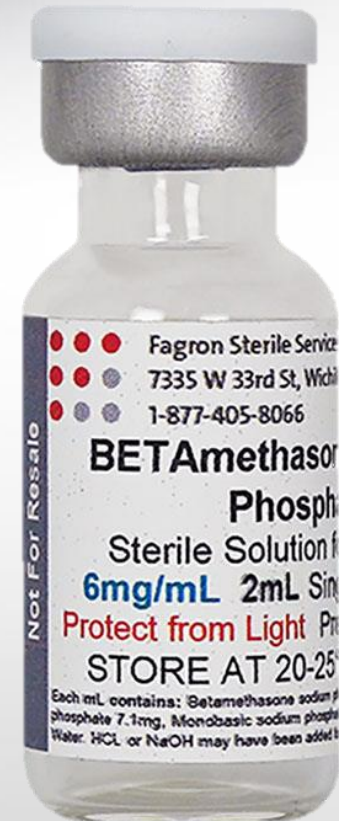
- ✓ Progesterone
- ✓ Cervical cerclage
- ✓ Omega-3
- ✓ Antibiotics
- ✓ Magnesium sulfate
- ✓ **T**ocolytics



How to Reduce Preterm Birth



- ✓ Progesterone
- ✓ Cervical cerclage
- ✓ Omega-3
- ✓ Antibiotics
- ✓ Magnesium sulfate
- ✓ Tocolytics
- ✓ Corticosteroid



How to Reduce Preterm Birth

➤ Progesterone



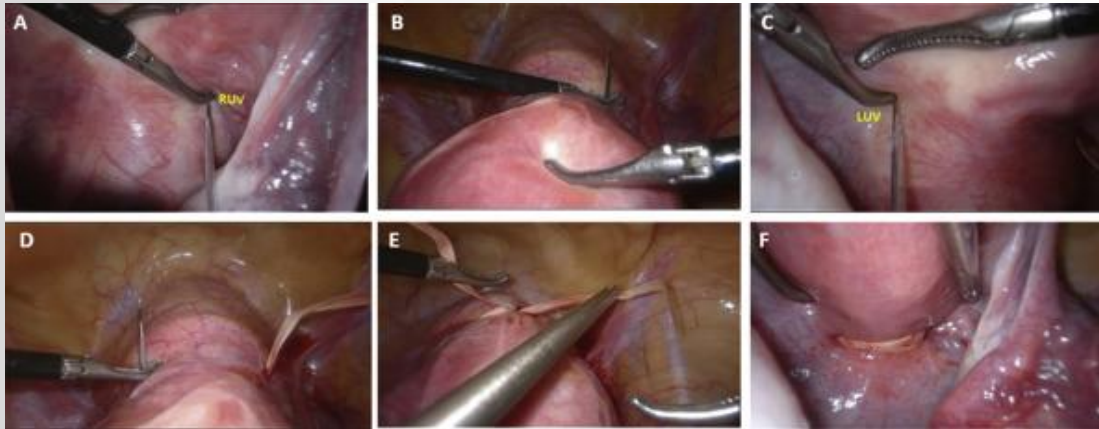
In women with a **singleton** pregnancy and a **short cervix** in mid-pregnancy or **previous preterm birth**, **vaginal progesterone treatment** should be used to increase **gestational age** at delivery and reduce perinatal mortality and morbidity.

How to Reduce Preterm Birth

➤ Cervical cerclage



Cervical cerclage may reduce preterm birth in high risk singleton pregnancies.



How to Reduce **Preterm Birth**

➤ **Omega-3** 



Omega-3 fatty-acid supplementation, may reduce **preterm** delivery but most likely only in populations with **poor nutrition**.



How to Reduce Preterm Birth

➤ Antibiotic



- ✓ In **prenatal** pre-labor rupture of membranes, **antibiotics** can **delay** preterm delivery and **reduce** neonatal morbidity.



- ✓ **Co-amoxiclav** **should be avoided** because of its association with increased risk of
NEC

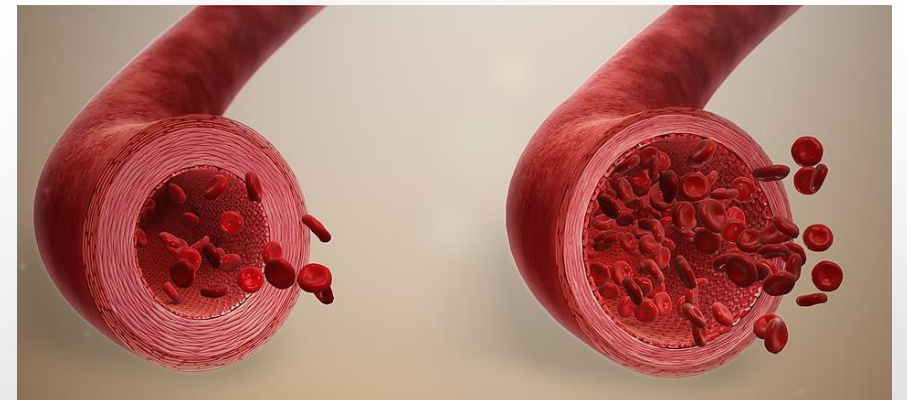


How to Reduce Preterm Birth

➤ Magnesium Sulfate



- ✓ Magnesium Sulfate, given to women with imminent preterm delivery before **32 weeks**
- ✓ Reduce the incidence of **cerebral palsy** at **2** years by about **30%**
- ✓ Reduction in **cerebral palsy** may be obtained if **Magnesium Sulfate** is given as close to **4** hours before delivery, so advanced dilatation is not a **contraindication** to treatment
- ✓ Side effect: **vasodilatation, neuromuscular blockage**

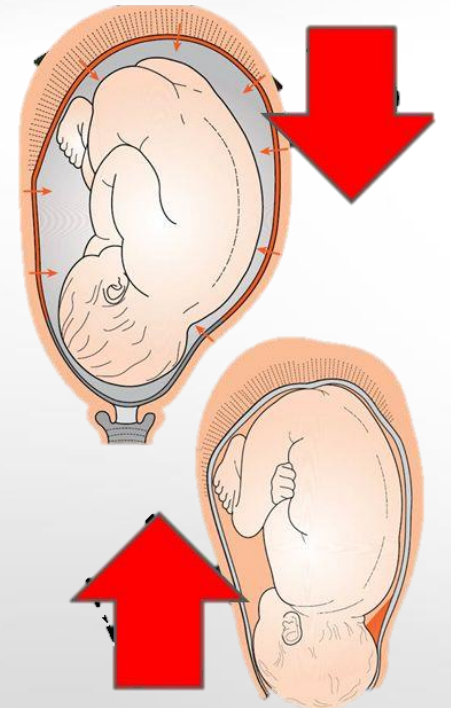


How to Reduce Preterm Birth

➤ Tocolytic drugs



- ✓ Tocolytic drugs can be used in **the short term** to **delay birth**, allow **safe** transfer to perinatal center, and allow perinatal corticosteroid time to take effect
- ✓ Tocolytic drugs have **no** direct beneficial effect on the **fetus**

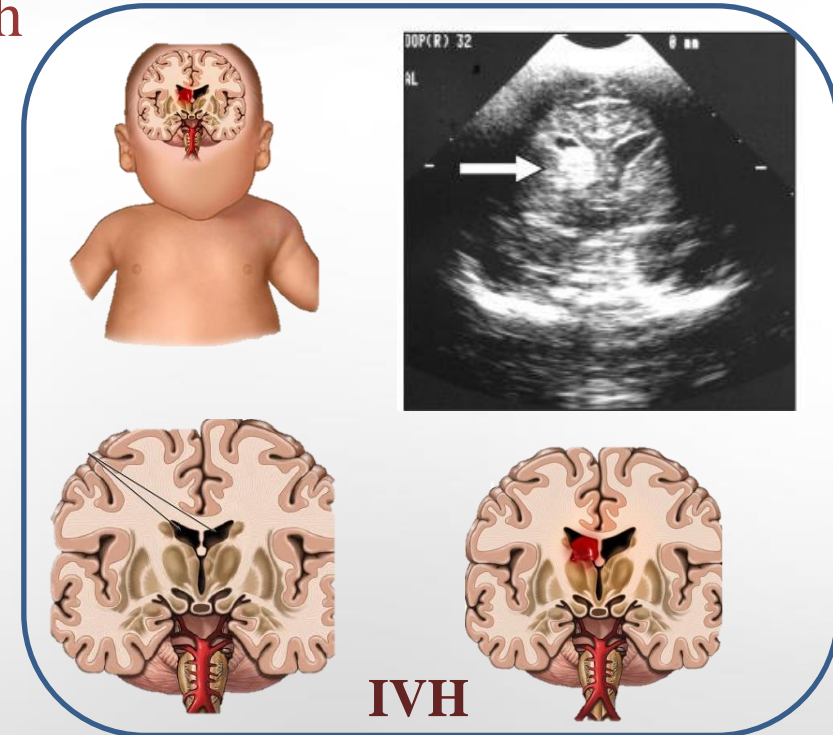
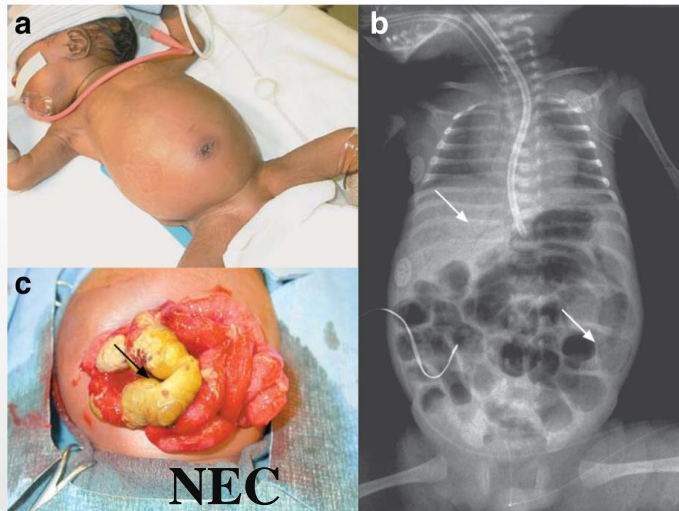
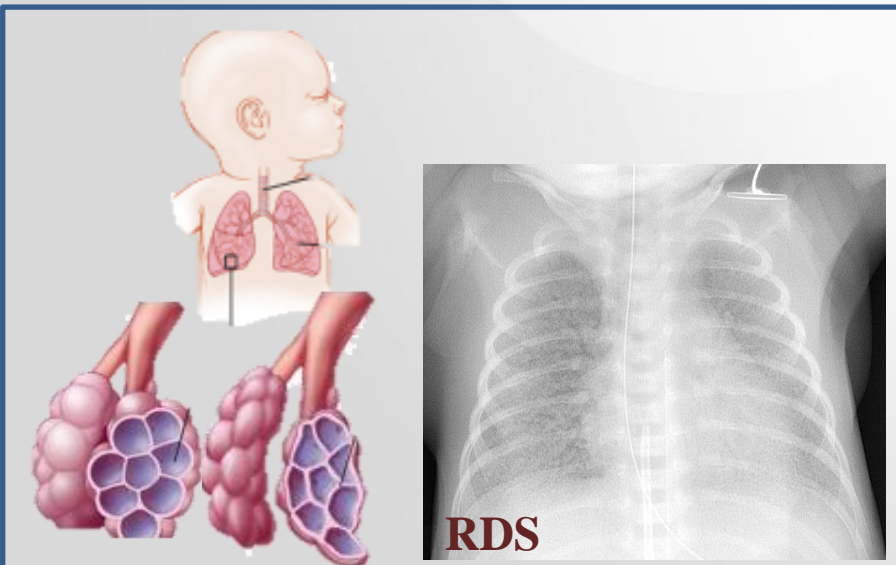


How to Reduce **Preterm Birth**

➤ **Corticosteroid**



- ✓ A single course of prenatal corticosteroids to all women at **high risk** of preterm delivery, from when pregnancy is considered potentially viable up to **34** completed weeks of gestation, ideally at **least 24 hours before birth**
- ✓ Improves survival, reduces **RDS, NEC, IVH**



How to Reduce Preterm Birth

➤ Corticosteroid



- ✓ A single repeat course of **steroid** may be given in threatened preterm birth **before** 32 weeks of gestation if the first course was administered at least 1-2 weeks earlier.
- ✓ A repeat course reduce the risk of needing respiratory support but **does not** affect mortality or other serious health outcomes, and reduces birth weight and head circumference.

How to Reduce Preterm Birth

➤ Corticosteroid



- ✓ In pregnancies between 34 and 37 weeks of gestation, prenatal steroids will also reduce the risk of short-term respiratory morbidity, **but** not mortality, and there is an **increased risk** of neonatal hypoglycemia.

- ✓ Associated with significant high risk of **adverse neurocognitive** and **psychological outcome**, So it is controversial and **not advisable**.



How to Reduce Preterm Birth

➤ Corticosteroid



- ✓ Optimal treatment to delivery interval is more than **24 hours** and less than **7 days**.



Transfer



Mothers at risk of preterm birth (< **28-30 weeks**) of gestation should be transferred to **perinatal centers** with experience in **management of RDS**



Reference

Sweet DG, Carnielli VP, Greisen G, et al. European Consensus Guidelines on the Management of Respiratory Distress Syndrome: 2022 Update. *Neonatology*. 2023;120(1):3-23.



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European Consensus Guidelines on the Management of Respiratory Distress Syndrome: 2022 Update

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