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Physiological prevention of blood loss

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Cessation of bleeding

- Remember: mother's blood and baby's blood are separate
  - Whose blood is in the placenta?
  - Whose blood is gushing out at the vagina in a "separation bleed"?

Cessation of bleeding

- Remember: 500-600mls/min of mother's blood going to the placental site
  - Blood flow must be stopped in seconds
- BUT – placental site gets much smaller as the uterus shrinks immediately the placenta is born

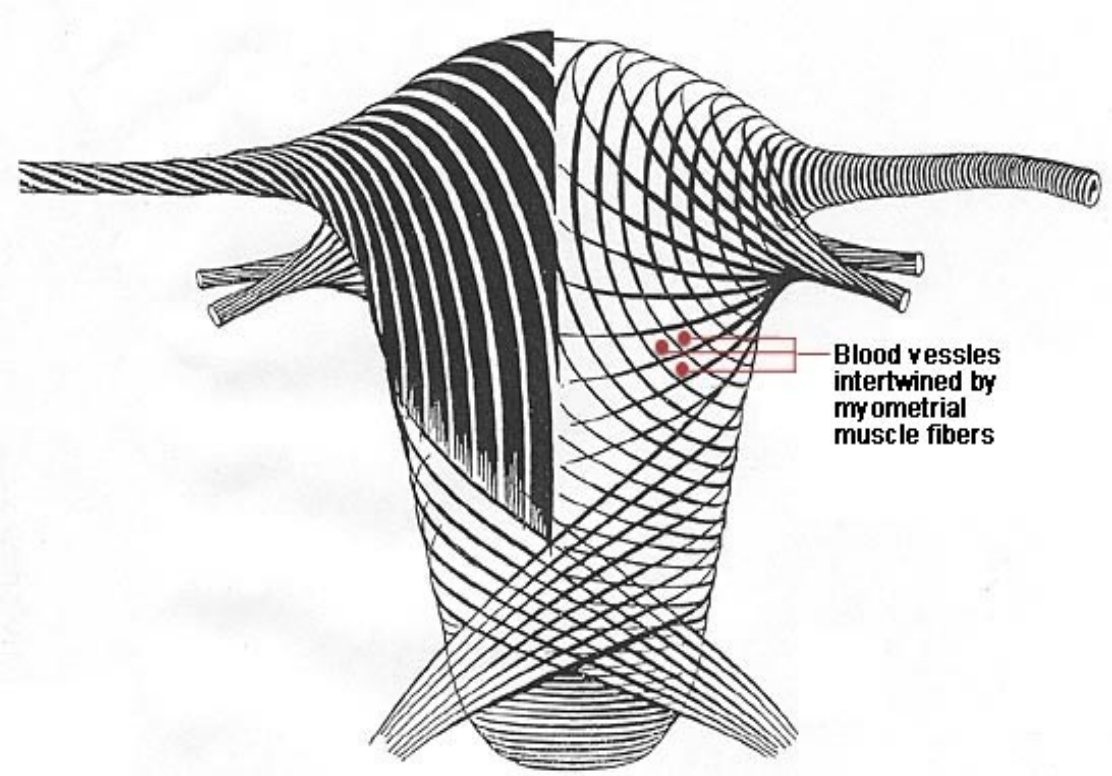
Placental site shrinks

4 Key issues

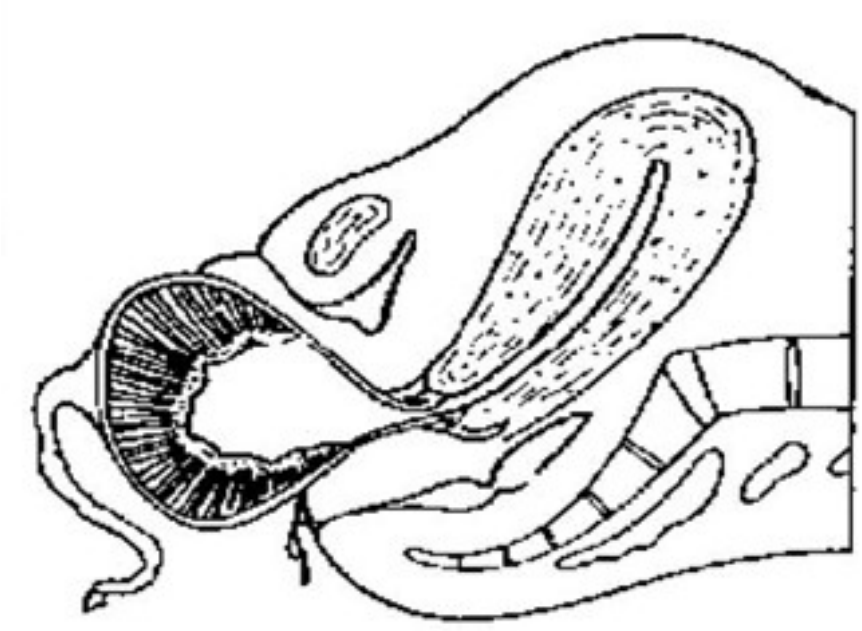
- Oblique muscle (myometrial) fibres known as ‘Living ligatures’ contract and retract compressing the uterine blood vessels that supply the placenta
- Apposition: empty uterine walls come into apposition
- Activation of the coagulation and fibrinolytic systems
- Breast-feeding – release of oxytocin

“Living ligatures”

- Contraction and retraction of oblique muscle fibres constricts blood vessels supplying placenta (50-100 uterine arteries)



Apposition



Nature putting pressure on the bleeding point

Activation of the coagulation and fibrinolytic systems

- Transitory increase in activity of coagulation system so that
  - Clot formation is maximised
  - Placental site is rapidly covered in fibrin mesh
- Important not to disturb this!!!

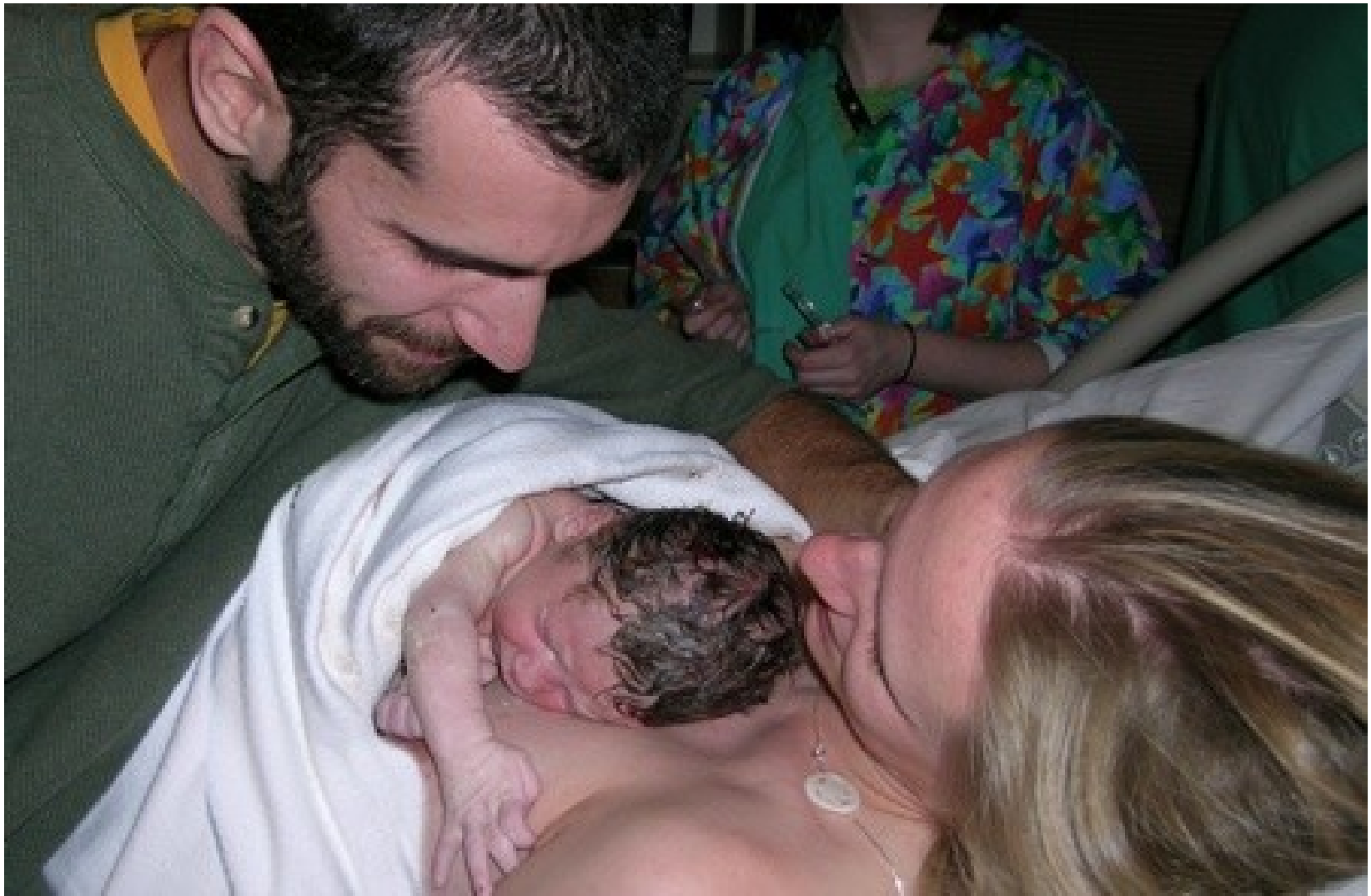
Breast-feeding

Stimulates release of oxytocin.

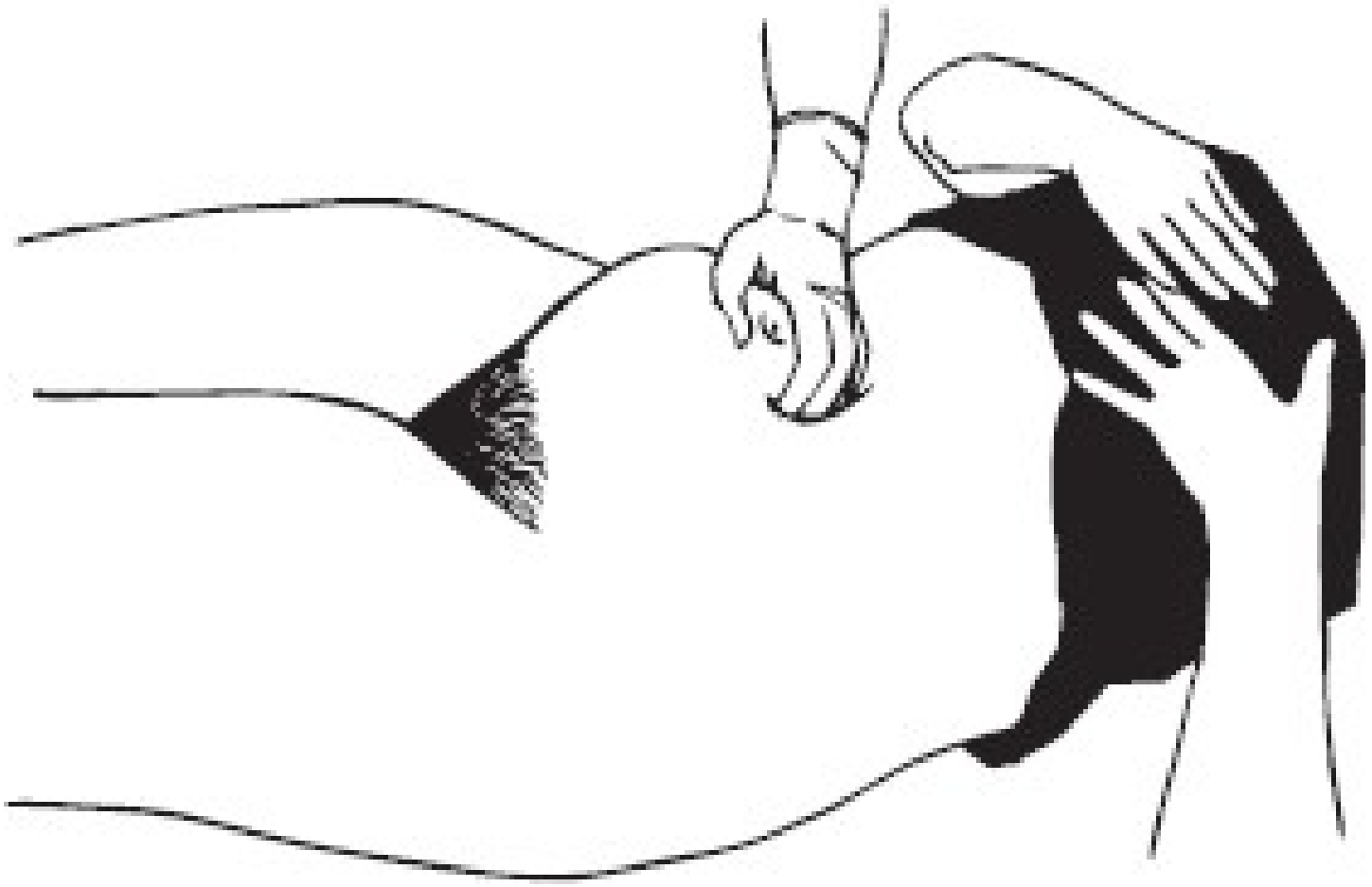
Skin-to-skin is first, and most important.

Suckling may follow if the baby seeks it.

So, let physiology work!



Do NOT “rub up a contraction” unless you really need to



If other clinicians argue against physiological management:

- Why bother?….we don't have to do it…. it's quicker the other way….

ICM says:

- "Many midwives will be required to attend the birth of the placenta without the aid of uterotonics”
- “…the knowledge of physiological (expectant) care and management of the third stage of labour is considered a basic midwifery competency..”
- (ICM 2008, revised 2017)

NICE guidelines say:

- “If a woman at low risk of postpartum haemorrhage requests physiological management of the third stage, support her in her choice.”

(NICE 2014)

If other clinicians argue against physiological management (2):

- “Women die of PPH”

CMACE UK 2011

- Out of 2.3 million women birthing 2006-2008, only 5 died of PPH.
- 3/5 lacked post-operative observations using MEOWS chart – failure of staff to realise they were bleeding.
- 1 had Hb of 7.5 prior to CS, then bled 1-2 litres, then died months later after pneumonia
- 1 concealed pregnancy, died at home.

MBRRACE UK 2020

- Out of 2.24 million women birthing 2016-2018, only 6 (?) died of PPH.

- One woman had extensive tears after a CS in the early 3rd trimester for breech at full dilatation
- An underweight woman had a massive PPH after a preterm birth.
- A woman presented with an intrauterine fetal death and bleeding, ? placental abruption.

NONE of these women were at "low risk" to haemorrhage

- It is safe (?safer) to use Expectant Management of Third Stage of Labour (EMTSL) **when women are at low risk.**

- If a woman bleeds following EMTSL, she can be given Syntocinon as a treatment.

Now:

some practice of estimating blood loss

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