Waters Breaking & Meconium in waters

What are waters?

A bag of fluid that beautifully cushions your baby as they grow. The bag is made up of a double membrane. Your babys environment is sterile and helps protect them from infection.

Around 90% of women start labour with membranes and water in tact and can start this way in labour up to the arrival of baby too. Around 10% of waters break before labour begins. Our media generated idea that waters go first is rare.

Most women - 79% will go into labour within 12 hours of their waters breaking and 95% will be in spontaneous labour within 24hours or waters breaking. (Middleton et al 2017)

Over the years the hospital advice on broken waters versus the risk of infection was 72hours, than 48hours, then 24, now 0 hours! with little evidence to back this up.

NICE GUIDELINES state – "If there are no signs of infection antibiotics should NOT be given to either women or baby, even if the membranes have been ruptured for over 24hours". Consequences of antibiotics are – oral thrush for baby, nipple thrush for mother. Breastfeeding issues, disruption of the gut microbiota and immune system. Plus antibiotic resistance.

Suggestions when waiting :

- View the situation positively – you have time to prepare for the birth and arrival, sleep, relax and be pampered. Build on your OXYTOCIN is key!!!
- Remember - Your vagina self cleans downwards – you reduce the chance of infection by not putting anything into the vagina – ie no VE's.
- Be self aware – connect with your baby and let your midwife know of any changes – feeling unwell, a temperature, fluid changes or smell, babys movements.

- Consider acupuncture or nipple or clitoral stimulation to encourage oxytocin to start your labour.

- Trust the process. Birth will happen.

- Once the baby is born – keep baby skin to skin with you to reduce the chance of infection by allowing your baby to become colonized by your bacteria – this applies to all births!

- After birth be aware of signs of infection – fever, raised pulse, feeling unwell, smelly discharge, uterine pain. Fever in baby, noisy breathing, listless.

Research evidence regarding induction for rupture of membranes is poor. Giving antibiotics in labour 'just in case' is not supported by current evidence and may cause problems for baby and mother. Women need adequate information on which to base their decisions regarding the management of the situation. Women who choose to wait for labour must be supported to do so.

Meconium in waters

Meconium is a mixture of mostly water (70-80%) and a number of other interesting ingredients (amniotic fluid, intestinal epithelial cells, lanugo, etc.).

Around 15-20% of babies are born with meconium stained liquor.

There are three reasons (theoretically) that a baby will open his/her bowels before birth (Unsworth & Vause 2010):

1. Because their digestive system has reached maturity and the intestine has begun working ie. moving the meconium out. This is the most common reason – 15-20% of term babies and 30-40% of post-term babies will have passed meconium in-utero.

2 . Because their cord or head is being compressed (during labour) ie. a vagally mediated gastrointestinal peristalsis – the same reflex which causes variable heart rate decelerations. This is a normal physiological response and can happen without fetal distress. This may be why a lot of babies pass meconium as their head is compressed during the last minutes of birth and then arrive with a trail of poo behind them.

3. Fetal distress resulting in hypoxia. However the exact relationship between fetal distress and meconium stained liquor is uncertain. The theory is that intestinal ischaemia (lack of oxygen) relaxes the anal sphincter and increases gastrointestinal peristalsis = passage of meconium. However, fetal distress can be present without meconium, and meconium can be present without fetal distress.

Meconium Aspiration Syndrome (MAS)

MAS is the major concern when meconium is floating about in the amniotic fluid. It is an extremely rare complication – around 2-5% of the 15-20% of babies with meconium stained liquor will develop MAS (Unsworth & Vause 2010). Of the 2-5% of the 15-20%, 3-5% of babies will die. OK enough %s of %s – basically it is very rare but can be fatal. For those who like numbers if you have meconium in your amniotic fluid your baby has a 0.06% (1:1667) chance of dying from MAS. This risk will go up and down depending on individual circumstances eg. prematurity, additional labour complications, etc.

Meconium in itself is not dangerous unless it is inhaled by the baby. For some babies meconium is a sign of hypoxia and they are at risk of meconium aspiration – these babies need additional monitoring and perhaps medical intervention. For most babies ie. those who are post dates, meconium is a sign of a mature digestive system that has begun to function – in these cases the aim should be to avoid hypoxia during labour and therefore meconium aspiration.

References :

1. https://www.nice.org.uk/guidance/cg190/ifp/chapter/if-there-is-meconium-during-labour
2. https://www.nice.org.uk/guidance/ng207/chapter/Recommendations
3. https://midwifethinking.com/2015/01/14/the-curse-of-meconium-stained-liquor/