



Wishing all of our friends and clients the very best for 2015!

What's New at Plum?

STUDENT MIDWIVES AT PLUM

The midwives at Plum act as preceptors for the Midwifery program at UBC and are pleased to include midwifery students, in their third and fourth year, as part of our team. Their participation can offer an enriched experience for our clients, ourselves and of course, the students. We hope you will welcome a student into your prenatal, labour, birth and postpartum care, to help provide



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Best of the Web

Every issue we bring you some of our favourite birthy news bites from around the web.

[New Contract for BC Midwives](#)

The Midwives Association of BC (MABC) has reached a five-year agreement with the Ministry of Health that will help grow and sustain the midwifery profession, enhance midwifery services and increase access to maternity care throughout the province, especially in rural communities.

BC's registered midwives ratified the agreement on November 27, 2014, with 93 percent voting in favour. The

this opportunity for the growth of midwifery in our province.

Jordan Guignard, a fourth year student, will be joining us mid-September 2014 until Spring 2015. You can read her bio below.

NEW CUMBERLAND LOCATION

We are excited to announce that our Cumberland office has moved! Our new location, **2765-C Dunsmuir Avenue**, is still part of the *Dunsmuir Medical Clinic*, but we now have our own dedicated clinic space and waiting room, which we share with Tara Miller, RMT. Entrance is around the back with our own dedicated parking. Look for our Plum Signage!

Cumberland office hours: Fridays 9:00am - 12:00pm.

Comox office hours: Thursdays and Fridays 9:00am - 5:00pm

To book a prenatal or postpartum appointment in Cumberland or Comox, please call our office at 250.890.0832.



SHOW YOUR LOVE

Are you a proud Plum client? Do you want to shout it from the rooftops? Now you can. Ask us for one of these great stickers next time you are at the clinic.

PRENATAL GROUP CARE

The next session of prenatal group care for families due in May and June 2015 starts on February 5, 2015. Please contact the office to register.

Jordan Guignard - Student Midwife

*From Fall 2014 to Spring 2015, 4th Year UBC student midwife
Jordan Guignard will be joining Plum Midwifery Clinic.*

strong endorsement of the agreement came after months of comprehensive negotiations and the decision last July by MABC's members to withdraw clinical education services at UBC.

[**Read more about the new contract...**](#)

Neuroscience of Motherhood

From joy and attachment to anxiety and protectiveness, mothering behavior begins with biochemical reactions, find out [**What Happens to a Woman's Brain When She Becomes a Mother**](#), from *The Atlantic*.

Hormonal Physiology of Childbearing

A new report from Childbirth Connection, [**Hormonal Physiology of Childbearing: Evidence and Implications for Women, Babies, and Maternity Care \(2015\)**](#), synthesizes an extensive literature about hormonally-driven processes of parturition and the early postpartum period.

Delayed Cord Clamping Illustrated

We think you'll find this Vancouver doula and birth photographer's blog post (with amazing photographs) on [**delayed cord clamping**](#) both educational and beautiful.

Plum Babies

My friend's mother introduced me to midwifery as a teenager. She held my attention for hours telling us tales of the birthing women she attended. I recognized then that midwifery was in my future.

Several years later, my husband and I welcomed two boys into the world with the thoughtful guidance of midwives. The care I received during my pregnancies fueled my passion for supporting women's health and preserving the birthing experience.



I am now in my fourth and final year of the Midwifery program at UBC. After clinical placements in Vancouver, Campbell River and Uganda, I am delighted to return to the beautiful Comox Valley. I previously worked in the valley as a doula, breastfeeding counselor, pregnancy outreach worker and Childbirth Educator.

When I am not on call or buried in homework, I enjoy riding my bike, swimming in the Puntledge and snowboarding on the mountain with my family.

I look forward to working with the team at Plum Midwifery and I am eager to meet the expecting families. Thank you for considering my involvement in your care.

Jordan

Early Skin-to-Skin Contact Between Mothers and Newborns

A new report, Hormonal Physiology of Childbearing: Evidence and Implications for Women, Babies, and Maternity Care (2015), synthesizes an extensive literature about hormonally-driven processes of parturition and the early postpartum period. The following information is drawn from this report.

Separation of mothers and babies after birth is common practice in many facilities,¹ particularly in relation to cesarean, episiotomy or laceration repair, or newborn examination and routine care. This fact sheet summarizes the beneficial hormone actions of mother-newborn skin-to-skin contact (SSC), the benefits of SSC through the lens of hormonal physiology, and practices that



Visit our [website](#) for photos

April 2014

Myles, 10lb 3oz
Hailey & Owen
6lb 8oz & 5lb 11oz
Brielle, 6lb 12oz
Aislynn, 6lb 15oz
Rylann, 7lb 6oz
Jayda, 8lb 2oz
Arlo, 7lb 10oz
Sylvie, 8 lb 3.5oz
Nathalie, 7lb 9.5oz
Luke, 6lb 1/2 oz
Olivia, 5lb 3oz
Chase, 8lb 14oz
Sadie, 6lb 7oz

May 2014

Lilah Rose, 6lb 13oz
Paxton, 6lb 7oz
Chase, 9lb 10oz
Wyatt, 10lb 7oz
Olive, 7lb 13.5oz
Imogen, 6lb 1.5oz
Aden, 10lb 6.5oz
Zaxxon, 7lb 11 oz
Conrad Joseph, 8lb 2oz
Kyle, 6lb 8oz
Jade, 5lb 15oz

June 2014

Chase, 10lb 1oz
John, 6lb 9oz
Oscar, 8lb 4 oz
Oslo, 8lb 14oz
Grant, 7lb 2oz
Taylor, 7lb 14oz
Oesha Wren, 8lb 15oz

July 2014

Violet, 8lb 13.5oz

support beneficial hormonal physiology when separation of mother and infant is necessary.

Hormonal action just after birth

In the minutes to hours after labor and birth that started and progressed physiologically, through healthy biologic processes and without effects of medications, procedures, and/or mother-baby separation:

- Early maternal oxytocin peaks in relation to maternal-infant SSC and interactions² may help prevent post-partum hemorrhage and promote biologic bonding and maternal adaptations.³ The first hour may be a period of exceptional sensitivity for mother and baby.

- Maternal prolactin peaks in the first hour after birth⁴ may facilitate breastfeeding.

- Fetal oxytocin elevations with SSC in the first hours after birth² may promote a calm and alert state that facilitates breastfeeding initiation.^{3, 5}

Benefits of skin-to-skin contact through the lens of hormonal physiology:

- Uninterrupted SSC and breastfeeding initiation may promote further rises in maternal oxytocin² and prolactin systems, promoting breastfeeding and bonding, and possibly preventing postpartum hemorrhage.

- SSC promotes maternal vasodilation,⁶ warming the infant and preventing hypothermia.

- SSC reduces newborn stress and stress hormones, optimizing newborn transitional physiology, including energy consumption, glucose levels, respiration, crying and breastfeeding behaviors.

- SSC promotes breastfeeding through early lactation hormone action, increasing the chances of exclusive and longer-term breastfeeding.⁷

- Following epidural anesthesia or cesarean birth-which may adversely impact the physiologic peaks of oxytocin,⁸ beta-endorphins⁹ and/or prolactin¹¹ of mother and newborn--SSC may compensate to some extent, with possible benefits to breastfeeding,¹¹ bonding, hemorrhage risk, and/or newborn transition.

- Ongoing skin-to-skin contact during the early days and weeks

Malachi , 7lb 14oz

Kiara, 6lb 9.5oz

Weston Joshua, 7 lb 7oz

Genevieve, 9lb 2oz

Adelle, 7lb 10oz

Olive, 9lb 10oz

Luc, 7lb 2oz

Makenna, 8lb

Travis, 7lb

Makena, 6lb 15.5oz

August 2014

Hudson, 8lb 4oz

Aaris, 6lb

Benjamin, 7lb 14oz

Crosby Tesla, 10lb 5.5oz

Oaklen William, 9lb

Cyrus, 8lb 1oz

Leah, 8lb

Sefa Bryn, 8lb 13oz

Eastyn, 8lb 4oz

Emilia Rose, 7lb 12oz

Jace, 7lb 6oz

September 2014

Daniel, 7lb 11.5oz

Oliver, 10lb

Aurora, 8lb 8oz

Charlotte Elzbieta, 6lb 13.5oz

Harriet, 6lb 8oz

Emerald, 8lb 7oz

Maisie Clementine, 7lb 10oz

Asha, 8lb 3oz

Angus, 9lb 3oz

October 2014

Emmaline, 9lb 13oz

Felix Ann, 8lb 3.5oz

Kamina, 7lb 2oz

Cedar, 8lb 3oz

Xenia, 7lb

Rowan, 5lb 14oz

Jonah Cruz, 6lb 4.5oz

Deklan Asher, 7lb 8oz

Hayden, 8lb 15oz

Samuel, 8lb 6oz

Daniel, 7lb 6.5oz

November 2014

may have benefits to maternal mental health,¹² likely via peaks of oxytocin and prolactin, both stress reducing.

Practices that support beneficial hormone action when separation is necessary

When separation of mother and baby is medically necessary, childbearing women and newborns can benefit from support of physiologic processes as far as safely possible. Ways to foster these processes include:

- Skin-to-skin contact may be beneficial for mother and baby even after the sensitive hour or so after birth, including for breastfeeding initiation.

- Breastfeeding, like SSC, releases oxytocin, prolactin and beta-endorphins, all soothing and rewarding hormones for mother and baby. Breastfeeding can optimize hormonal physiology and/or reduce stress for mother and baby at any time.

Precautionary Point:

Animal studies show long-term disruptions to hormonal systems and functioning following brief daily maternal-newborn separation, which is used as an animal model for depression¹³ and addiction.¹⁴ Human studies also suggest significant stress for separated newborns.¹⁵

Selected references - see report for additional documentation:

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3. Bergman, N. (2013). Breastfeeding and perinatal neuroscience. In C. J. Watson (Ed.), *Supporting sucking skills in breastfeeding infants* (2nd ed.). Burlington, MA: Jones & Bartlett Learning.
4. Stefos, T., et al. (2001). Maternal prolactin secretion during labor. The role of dopamine. *Acta Obstet Gynecol Scand*, 80 (1), 34-38.
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6. Bystrova, K., et al. (2007). Maternal axillar and breast temperature after giving birth: Effects of delivery ward practices and relation to infant temperature. *Birth*, 34 (4), 291-300.
7. Moore, E.R., et al. (2012). Early skin-to-skin contact for mothers and their healthy newborn infants. *Cochrane Database*

Hannah Noelle, 7lb 9oz

Stella Mia, 6lb 4oz

Nikki, 9lb 12oz

Mia Fabienne Emelie, 9lb 2oz

Annabelle, 8lb 2oz

Peter, 8lb 4oz

Nikolaus, 8lb 9oz

Juno, 8lb 11oz

Kameron, 7lb

Grace, 6lb 8oz

December 2014

Madison, 9lb

Carter, 7lb 13oz

Duncan, 8lb 7oz

Macy, 8lb 15oz

Sawyer, 9lb 14oz

Virginia, 6lb 15oz

Miriam, 6lb 11oz

Wren, 7lb 10oz

**We want to
feature your little one!**

[Email us a photo.](#)

"Like" Plum?

We invite you to come on over and check out our Facebook page. You will find Plum news, interesting articles and news stories. **We would be thrilled if you would drop us a line, share your baby photos, post questions and help us make it a vibrant space for everyone who "likes" us.**

[Like us on Facebook](#) 

 [Join our Mailing List](#)

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9. Browning, A.J., et al. (1983). Maternal and cord plasma concentrations of beta-lipotrophin, beta-endorphin and gamma-lipotrophin at delivery: Effect of analgesia. *Br J Obstet Gynaecol*, 90 (12), 1152-1156.
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12. Bigelow, A., et al. (2012). Effect of mother/infant skin-to-skin contact on postpartum depressive symptoms and maternal physiological stress. *J Obstet Gynecol Neonatal Nurs*, 41 (3), 369-382.
13. Lee, J.H., et al. (2007). Depressive behaviors and decreased expression of serotonin reuptake transporter in rats that experienced neonatal maternal separation. *Neurosci Res*, 58 (1), 32-39.
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15. Morgan, B.E. et al. (2011). Should neonates sleep alone? *Biol Psychiatry*, 70 (9), 817-825.

Disclaimer:

The information in this document is not intended as a substitute for the professional guidance of qualified maternity care providers.

Access *Hormonal Physiology of Childbearing: Evidence and Implications for Women, Babies, and Maternity Care (2015)* by Dr. Sarah J. Buckley and related material, including individual fact sheets and the full set, at ChildbirthConnection.org/HormonalPhysiology.

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Newborn Procedures - Vitamin K Injection

In this on-going Plum Bites series on Newborn Procedures, we will address the many procedures you can expect to be offered when your baby arrives.

Why is Vitamin K administered to newborns?

Vitamin K is a fat-soluble vitamin we get chiefly from bacteria in our gut. Vitamin K is crucial for blood clotting and bone health. Newborns are born with lower clotting factors than adults, because initially their intestines lack the bacteria at birth to manufacture their own Vitamin K. A Vitamin K deficiency can lead to hemorrhagic disease of the newborn (HDNB) which is severe internal bleeding. It is a Canadian standard for all newborns to routinely receive Vitamin K within the first hours of birth. An intramuscular injection of Vitamin K is quite effective in preventing HDNB and is the most commonly administered method of giving Vitamin K to newborns.

Without Vitamin K administration, newborns are at risk of developing HDNB. Hemorrhagic disease can be severe, leading to hospitalizations, blood transfusions, brain damage and death. While formula is enriched with Vitamin K, breastmilk tends to be lower in Vitamin K which is why the evidence shows that newborns that do not receive Vitamin K are at risk of developing HDNB; 1 in 200 risk for breastfed newborns and 1 in 20,000 risk for formula fed newborns.

Although it is unpredictable as to which newborn is at risk for developing HDNB, there are **several risk factors** that have been identified including: preterm delivery, low birth weight, delivery by forceps or vacuum extraction, prenatal maternal use of certain medicines (including antibiotics, anticoagulants, and anticonvulsants), liver disease, a fast labour and birth, or prolonged labor particularly during the pushing phase, and birth by Caesarean section.

Many question whether nature would design a faulty system- **why would all babies be deficient in a vitamin that was also lacking in their natural food?** Some feel that it's preferable to supplement the breastfeeding mother's diet with Vitamin K, both/either through a diet high in leafy greens and probiotics, or a supplement, rather than giving their newborn Vitamin K, although there is no research based evidence in the literature to support this practice.

What are your options?

Some parents may choose to give their baby Vitamin K orally rather than intramuscularly which is considered to be an acceptable option of administering Vitamin K to newborns. In this case, Vitamin K must be administered as a double dose at the time of birth, then the double dose is repeated at 2-4 weeks and again at 4-6 weeks to ensure absorption.

If parents choose to not give Vitamin K intramuscularly or orally to their newborn, they will be asked to sign a consent form to

ensure that the risks of not giving their newborn Vitamin K shortly after birth are clearly understood and that the parents are taking full responsibility for this decision.

****Read the position statement from the Canadian Paediatric Society: [Routine administration of vitamin K to newborns.](#)****

Genevieve's Birth

Our clients share their journeys into the realm of parenthood, where they find their expectations defied and lives forever changed.

On the morning of Saturday the 12th of July, I woke up, ahhh 41 weeks pregnant... Maybe today is the day!!!! Thankfully Taylor was home so it was time to meet our baby!

Our midwife came over around 9am and did a membrane sweep. She said she was able to stretch my cervix to about 4cm, and she thought she would likely be hearing from me again later that day/night! Now I was excited!!! We just had a normal morning. I was a little crampy from the sweep but nothing crazy.

At 12, I had to go to the hospital for a routine non-stress test, to make sure baby was still happy in there. There were some mild but consistent contractions registering on the monitors. These non-stress tests at our local hospital are seriously stressful. Imagine, a 41 week pregnant mama going into the room she gave birth to her first born in to be hooked up to monitors and listening to someone else give birth to their baby in the room next door. I seriously forgot all about how painful it was until then. It actually kind of psyched me out. Taylor had to talk me down and reassure me it wasn't going to be like that necessarily for me and that I was planning a wonderful home birth and it would be great! Thanks babe!

We spent the rest of the day in the sun at a BBQ. Everyone was guessing I would have the baby that night. I wasn't so sure! I had been feeling like it would never happen!! We went home around 5-6pm. Time to relax!

As soon as we got home the cramps started getting a little stronger so I was determined to go with them and help them get stronger. It was a hot day, so I was in my undies, pacing the house, up and down the stairs, doing squats, warm baths, using essential oils. The contractions really started to come frequently. They weren't all that painful, just uncomfortable. I figured okay this is pre/early labor, could go on for a while, so we just ate and watched a movie and kept working through the cramps. Taylor's

parents came over to say goodbye because they were leaving to Hawaii in the morning. When they arrived the cramps slowed down and went away. I guess I was in the zone before and once people came over I kind of closed up. They left around 8:30 and we tried to put Hanna to bed but she knew mama wasn't feeling right and refused. I couldn't lay down through these cramps anymore; I had to move. Taylor thought I should call the midwife but the contractions were nowhere near that strong or close together yet.

Around 10 pm I was having contractions (moderate, mainly uncomfortable) every 3-7mins so still early labor but definitely picking up. I decided to call the midwife and give her a heads up that this might be it, so she can get some rest before we need her! The midwife on call was at a birth but had another midwife call me. She was on her way to Cumberland anyways so she said she would go home, change, get her stuff and come check me in about 45 or so mins just to see where we were at. (This was the same midwife who came and did the membrane sweep earlier).

During that 45 mins my contractions went from irregular, moderate, to every 3 mins, moderate but getting much stronger. She was like wow that changed fast! I was tired already... She decided to stay after checking my cervix as I was about 5-6 cm at this point. Taylor took Hanna upstairs because she was not loving me being in pain. Taylor fell asleep but Hanna stayed up watching cartoons until a few hours later when I went up between contractions and told him to turn the tv off and get Hanna to bed! They both fell asleep but at this point I couldn't go up anymore. I was in the zone.

I called my mum to come at this point and she and my sister arrived at around 1am. I was having contractions stacking one on another now, leaning on my tv stand or squatting through them. The midwife or my mum would put pressure on my back and that seemed to help. The midwife had started filling the birth pool a while before they arrived. It took a good hour and a bit to get it full, plus some pots of boiled water to keep it hot. That thing was huge. I got in around 2-2:30 and the water felt amazing! It soothed my sore body and let me relax. I laboured in the pool for a hour or so, then got out to walk around through some contractions.

At this point my midwife suggested breaking my water if I was 7cm or over to help speed things up and to make sure there was no meconium in the fluid (if there was we could transfer to hospital without it being an emergency transfer in an ambulance as it would be if they broke spontaneously closer to birth). I agreed. Now I had to lay on the couch, not fun, I did not want to be on my back and I absolutely hate cervical checks. But hey,

this is only check #2!!!! With Hanna I had like 20 checks. I was 7cm stretching to 8cm. So she said breaking my waters was a good choice, and she figured about 1-2 hours after babe would come!! (Maybe, I wasn't convinced because my water broke with Hanna at 1am and I didn't have her until 8pm!!!)

I had to lay through 2 contractions so she could break my waters... Ouch. After that I got back in the pool. My mum and the midwife were both resting on the couches and there was one contraction they both looked at each other and said "Ohhh that one was different."

It was about 4am now, mum was holding my hand, rubbing my shoulders, putting cool cloths on me, giving my water. The midwife offered me a homeopathic remedy to make my contractions stronger, and it definitely worked. The midwife made a call to the second attending midwife. Holy shit this is happening!

I say to mum "Maybe we should get Taylor now?" She was like "right!!!!" And went upstairs to wake him. He came down 5 mins later. The second midwife arrived shortly after. Poor Tay went from me being in early labor to me being in transition, almost ready to push.

About 10 mins after the 2nd attending arrived, I suddenly had this urge to bear down... No way, I was so in denial - I can't do this anymore, make it stop, ahhh! I wanted the midwife to check my cervix because I couldn't believe it was happening this fast, she reached into the pool and told me she could feel the baby's head about 1 knuckle in, told me to feel for myself, baby would be here VERY soon! Wow that was fast! Then there I was in the pool, by myself, pushing and breathing my baby down. My body took over and did exactly what it needed to do at the right time, big pushes, slowly breathing down, gently but effectively getting baby down. Baby crowned and oh man that burn! And the pressure. I thought for sure I was tearing horribly. The midwife kept assuring me I knew exactly what I was doing and everything was great! Finally baby's head was born and the midwife reached in and said okay now one more big push and your baby will be born, I was so ready to meet my baby, 1 last push and relief!!!

I reached into the water to grab my baby, then brought her up through the illuminated (midwives headlamps) water and onto my chest. That was the most Amazing moment of my life, watching that little baby come up through the water. Babe gave a good cry and snuggled right into my chest! Ahhhh bliss.



After a few minutes of snuggling we wondered oh, is it a boy or a girl and of course another girl!!! Yay!! Soon after the pool turned red, the placenta had detached, time to get out. Still attached to my baby, we climbed out of the birth pool and onto a birthing stool. I was losing a fair amount of blood so baby was detached and I was given a shot of pitocin in the leg and out came the placenta, it was massive! Then, still bleeding a lot so they got me on the couch and were "massaging" (ow) my belly. I also was given a second shot of pitocin. The bleeding slowed down. But later the midwife had to manually remove clots ouchhhhhhieeee!!! At this point she checked for tears, none! Woot! No stitches again, thank goodness!

Little Genevieve was nursing up a storm right away. Ahhh it was magic. We laid on the couch and snuggled as my house went from birthing place to living room again. I was cleaned up and we decided to go up to bed, where Hanna had peacefully slept through my entire labour and delivery!! She woke up shortly after and met her baby sister! We were all so in love.



All in all, I would recommend a water birth to anyone! It was magnificent! So awesome being at home and able to go lay in my own bed and eat my own food after giving birth.

I have two opposite birth stories. One medicated hospital birth,

one all natural home water birth. Both gave me the best gifts, my two beautiful daughters, Hanna and Genevieve. I'm happy to have experienced two really different births, but if I were to do it again I would be at home again, surrounded by those who I love and my awesome midwives!!!

Thank you to our clients. You are why we love what we do--even at 3:00 in the morning.

Sincerely,

Joanne, Emma, Cat, Amy & Annabelle.

Plum Midwifery