Information Leaflet

NHS
Liverpool Women's
NHS Foundation Trust

Liverpool Multiple Pregnancy Clinic (LMPC) Monochorionic Diamniotic (MCDA) Booklet

The Liverpool Multiple Pregnancy Clinic

Congratulations on your pregnancy, and welcome to the Liverpool Multiple Pregnancy Clinic (LMPC).

Liverpool Women's Hospital hosts one of only a few dedicated multiple pregnancy clinics in the UK. This service has been designed to provide all of the antenatal care that you should need throughout your pregnancy.

You will see a Specialist Multiple Pregnancy Midwife who will talk you through the plan of care for your pregnancy and answer any questions that you may have.

Your scans will be performed in the Fetal Medicine Unit (FMU) by a team of specialist doctors and consultants.

Your Multiple Pregnancy Team

- Professor Asma Khalil
- Dr Andrew Sharp, Consultant
- Dr Ben Choo, Consultant
- Dr Borna Poljak, Specialist Doctor
- Anne Rhodes, Midwife Sonographer
- Jennifer Robinson, Specialist Multiple Pregnancy Midwife
- Claire Coonan, Specialist Multiple Pregnancy Midwife

Your specialist midwives and medical team would like to welcome you to the wonderful world of multiples.

We love it and we hope you will too. However, we also know that this can be a very confusing and frightening time. Jen and Claire live in this world and encourage you to feel free to talk to them about any questions you may have.

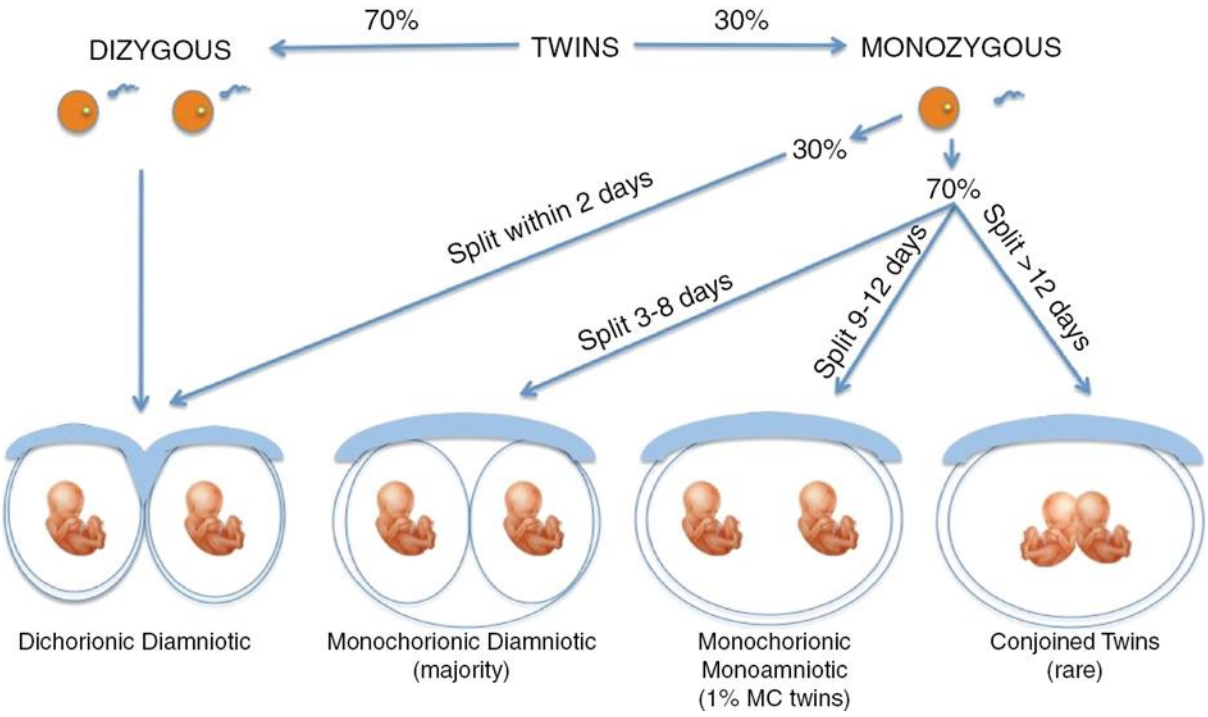
What is multiple pregnancy, and why do I need extra appointments?

The aim of this booklet is to introduce the different types of multiple pregnancy, and explore the known risks. This helps us follow a detailed pathway to minimise these risks to you and your unborn children. The appointments for review and scanning times, can be longer than in other pregnancies, but we will keep you informed regarding any delays.

We also want to empower you to make decisions about your antenatal classes, delivery, and pain relief, plus where to seek additional support if required.

Multiple pregnancy means carrying more than one baby (referred to as singleton pregnancy). Most multiple pregnancies are Twins, rather than triplets and quadruplets. Multiple pregnancy is increased by fertility treatment, ethnic origin, and the later ages of mums having their children.

Twins can be monozygotic (one fertilised egg splits in two) or dizygotic (two eggs are fertilised). Monozygotic Twins will normally be the same sex. There are generally three types of Twins seen on scan. The three types are:



(*From Fetal Medicine, RCOG Bidyut Kumar, Zarko Alfirevic*)

All non-identical Twins are DCDA, and roughly one-third of identical Twins are DCDA. The other two-thirds of identical Twins are MCDA, and just 1% of identical Twins are MCMA.

<u>One-third of all Twins will be identical, and two-thirds non-identical</u>

Identical (monozygotic) Twins happen when a single egg is fertilised. The egg then divides in two, creating identical Twins who share the same genes. Identical Twins are always the same sex and they'll look very alike.

- **Dichorionic Diamniotic** (DCDA) Twins – each baby has a separate placenta with its own separate inner membrane (amnion) and outer membrane (chorion)
- **Monochorionic Diamniotic** (MCDA) Twins – both babies share a single placenta with a single outer membrane and two inner membranes
- **Monochorionic Monoamniotic** (MCMA) Twins – share both placenta, and the inner/outer membranes

The majority of women who are pregnant with Twins deliver healthy babies, although carrying more than one baby increases the health risks for the mother and the babies. This is of particular importance if the placenta is shared between Twins, as in 70% of identical Twins. The best time to identify the chorionicity (whether the placenta is shared or not) is on your dating scan at 12 weeks of pregnancy. If the scan cannot identify as to whether the placenta is shared or not, you will be monitored as for a monochorionic (shared placenta) pregnancy.

Screening

If you wish to have screening for conditions such as Down's syndrome- this is still possible. You will be offered a blood test in combination with your dating ultrasound (using measurements from each baby) between 11-14 weeks of pregnancy. This generates a likelihood of a baby having a condition such as Down's syndrome. Only those deemed high risk (1 in 150 chance) would then be offered more invasive tests to give a final diagnosis.

Private screening tests to detect the babies DNA within a maternal blood sample are non-invasive and accurate screening tests in singleton pregnancies. Unfortunately, they are less accurate in multiple pregnancy and fail to obtain a result 5% of the time.

A member of the LMPC team will be able to discuss this in further detail if required.

What specifically are the doctors and midwives looking for?

Whilst we would like every pregnancy to go perfectly, unfortunately this is not always the case and Twin pregnancies are at greater risk of some complications.

Preeclampsia

Raised blood pressure in pregnancy is linked with multiple pregnancy. If you have other risk factors for preeclampsia, your doctor may wish for you to start on Aspirin 150mg a day, to help reduce the risk. At every appointment your blood pressure and urine is checked to identify preeclampsia. Urine pots can be collected from the desk. If you experience swelling of the face, severe headaches, visual disturbances, or

upper abdominal pain, please contact the hospital immediately. These may be signs that you are developing pre-eclampsia and you will need to be assessed by our medical team.

Anaemia

Anaemia is common in multiple pregnancies due to the extra dietary demand on your body. It is important to eat a healthy diet, your midwife will be able to recommend a variety of foods that can help you avoid anaemia during your pregnancy. You will be offered at least two blood tests to detect anaemia to enable treatment at an early stage. Signs of anaemia can be tiredness, shortness of breath, light headedness and looking pale. We may recommend taking iron tablets to minimise the chance of developing anaemia.

Gestational Diabetes

This is a condition when your blood glucose (sugar) is raised during pregnancy. It is more likely to occur when you are having more than one baby, are overweight, older, or have a family history of diabetes. Your midwife will check your urine at every appointment, if there is glucose in your urine on more than one occasion, she may send you for a glucose tolerance test (GTT). If you do develop gestational diabetes you will be managed by our dedicated diabetes team as well as us, it can be successfully managed minimising the risks of complications.

Obstetric Cholestasis

Obstetric cholestasis is a condition, more common in multiple pregnancies, where the normal flow of bile from the liver is restricted. The main symptom is severe itching, especially the palms and soles, as well as tiredness, dark urine and loss of appetite. Please talk to your midwife about any changes or concerns you may have, and she will offer additional tests. If you do develop obstetric cholestasis then you will be put on medication, some women will need to be delivered early as a result of the condition.

Vaginal Bleeding

Bleeding of any sort can be extremely worrying in pregnancy, please contact the hospital if you experience bleeding during your pregnancy.

Preterm Birth

Women expecting Twins or triplets are more likely to delivery preterm

- *About 60 in 100 sets of Twins will go into labour before 37 weeks*
- *About 75 in 100 sets of triplets will go into labour before 35 weeks*

• *In comparison, only about 10 in 100 women who are pregnant with one baby will give birth before 37 weeks.*

Preterm birth may have a relatively minor effect on your babies if it occurs close to 37 weeks, but a much more serious impact if it begins at lower gestations. In light of this we advise that all women have an assessment of their cervical length on vaginal scan at 20 weeks. This is performed separately to the scan looking at your babies' anatomy. If the cervix is short at this time, then you may be offered treatment to prevent early delivery.

Problems with growth

A difference of up to 25% between the weights of Twins is considered normal. If the difference (discordance) is greater than this, you may be asked to see the medical team for further scans.

Labelling of Twins

We label your babies Twin 1 and Twin 2 from early in the pregnancy. In rare cases because the position of the babies can change it may not be Twin 1 that is delivered first. Please check with your midwife at delivery.

Problems Specific to Monochorionic Twins

Unfortunately, because of the shared placenta in monochorionic twins these pregnancies are at higher risk of complications than dichorionic twins.

Twin-to-Twin Transfusion Syndrome (TTTS)

TTTS occurs in 10-15% of monochorionic twin pregnancies, meaning about 85% of do not develop this condition.

There are abnormal connections between the baby's blood vessels on the surface of the placenta. This then causes blood to be transferred (shunted) from one twin (the donor) to the other (the recipient).

By donating some of its blood supply to its sibling, the donor has less oxygen in its blood and produces less urine, leading to a small bladder and less fluid around the baby. The recipient has excess fluid and a large bladder.

You will have regular ultrasound scans in pregnancy to screen for TTTS. The diagnosis is made by measuring the amount of fluid around each baby, the size of their bladders, the baby's weight and the baby's blood flows (Dopplers).

There are a few warning symptoms to keep an eye out during your pregnancy but often you will have no symptoms at all:

- Sudden weight gain
- Feeling of increased pressure in your tummy
- Feeling like your tummy is tight

If you are diagnosed with TTTS, you and your babies will be monitored very closely. If the TTTS is mild (stage 1) and the babies are stable, you may not need any treatment. You will be regularly monitored and if the situation gets worse, doctors may intervene.

If the TTTS is more advanced, you will be advised about treatment options. If no treatment is performed the outcome for the pregnancy can be very bad. The most effective treatment is Laser Ablation of the blood vessels of the placenta which connect the babies. It involves a needle being inserted into your uterus (womb). More information will be provided with our TTTS leaflet should you develop this condition.

Selective Fetal Growth Restriction (sFGR)

In 10-15% of Monochorionic twin pregnancies the babies do not share the placenta evenly. This means that one baby gets a normal amount of nutrition from its mother whilst the other baby gets less than it needs to grow efficiently.

We monitor the babies growth with ultrasound and will try to gain as much gestation as possible. Sometimes we will need to deliver early to ensure that both babies are born healthy.

Making the most of your pregnancy

Your pregnancy may seem to pass you by in a flash, with all your specialist appointments and preparation in welcoming your new babies. Here at LMPC we feel that it is important to make the most of this short and precious time. It can be stressful having more than one baby and at times it may seem overwhelming. Here are a few tips to help you to enjoy your pregnancy. Try to eat a well-balanced diet. Taking regular exercise can be very beneficial when pregnant even if you're not used to doing so. It does not have to be going to classes or going the gym, going swimming is a great way to exercise in pregnancy. However, you can go for a walk for free! It is well documented that being at one with nature can boost mental wellbeing and you can do it in any weather and do not need any specialist equipment. It is also recommended to talk to your babies before they are born as it is known to enhance brain development and bonding. Anyone in the family can talk to the babies and about anything at all, it does not have to be children's stories. If you are struggling with ideas, why not start by reading them this booklet, once you start you will find it becomes easier each time. By the time they are born it will be second nature. It is not advisable for you to smoke, drink alcohol or take non-prescribed drugs during your pregnancy. If you would like help and advice on giving up, please talk to your midwife and she will help.

Antenatal Classes

Our specialist multiple pregnancy midwives run regular antenatal classes designed to give you guidance and answer your questions on pregnancy, birth and looking after your new babies. We also include advice on twin related issues and difficulties, such as breast-feeding two babies (dates available in the clinic).

Labour and delivery

As multiple pregnancies are higher risk for both you and your babies, we advise that you deliver in a consultant led unit. This will mean easier access to doctors for yourself and babies, if required. We advise delivery from 35+0 weeks of pregnancy for triplets, from 36+0 for monochorionic, and from 37+0 weeks if carrying dichorionic Twins.

Giving Birth to Twins

If the presenting Twin is head down (cephalic) we would advise vaginal delivery as there is no evidence that elective caesarean section is any better for mother or babies. The position of the second baby does not affect the chance of a vaginal delivery. Previous caesarean section is not a contraindication to vaginal delivery.

Of those pregnancies where an attempt at vaginal delivery is made approximately 50% will result in caesarean section. In addition, there is a 7% risk of having to deliver the second twin by caesarean section.

If you have not laboured spontaneously, we would advise induction of labour. This will be performed in hospital (see induction of labour leaflet).

If the presenting Twin is breech, we recommend caesarean section unless spontaneous labour has occurred and vaginal delivery is imminent.

Your midwives will discuss a plan for delivery with you at 28 weeks or sooner if needed.

Fetal Monitoring

All Twin pregnancies should be monitored with continuous electronic fetal monitoring, referred to as a CTG, during labour. A clear difference between both babies heartbeat should always be identified on monitoring. A fetal scalp electrode (FSE) may be offered to Twin I to aid in differentiating the babies.

Analgesia

All options for analgesia can be considered during labour and the choice of analgesia is yours. There are some benefits in using epidural analgesia if additional procedures should be required for the delivery of Twin 2. This can be discussed in more detail with your midwives in LMPC.

What do I need to pack for hospital?

As you may require a hospital stay during your pregnancy, we would recommend at around 24 weeks you pack an overnight bag just in case you should need it.
We have prepared a list to help guide you when packing you bag.

For your babies:
- Cotton wool
- Nappies – approximately 8 per day per baby
- Vests – 5-6 per baby
- Baby grows 5-6 per baby
- At least 1 cardigan per baby
- At least 1 hat per baby
- Scratch mitts
- Although the hospital provides blankets and towels, you may like to bring your own

For you:
- Maternity pads
- Breast pads (even if you are not breast feeding)
- Nursing bras + underwear
- Nightie/PJ's 2-3
- Dressing gown + slippers
- Change of clothes
- Toiletries
- Towel (the hospital does have towels, but they are not very big)
- Flannel
- Hair bands
- Lip balm
- Snacks and drinks
- **HOSPITAL NOTES**

NICU

Twins are more likely to spend time in a special care baby unit than a singleton. We understand that this can be a worry to parents. Here at Liverpool Women's, we have a fantastic world Neonatal Unit with highly trained doctors and nurses who all understand the feelings you may experience should one or more of your babies need extra support.

Twins go to our neonatal unit for a variety of reasons and spend different lengths of time there. It is worth noting that if one of your babies needs to go to the unit, it does not mean they will both go, this can be very stressful, but rest assured that your babies bond will not be disturbed and that you can spend time with both your twins together. If either of your babies had to go to the Neonatal unit, it would be a good idea for you to think about giving them breast milk, as this will aid their recovery, your midwife can discuss this further with you at any point.

Postnatal Management

We expect that you will return home, happy and healthy, with your new babies, and postnatal care is the generally the same as for those returning home with one baby. As many multiple pregnancy babies will need to spend some time on the neonatal unit (NICU) this can cause concern and feelings of separation. We advise that you speak to your midwife and neonatal nursing staff for reassurance.

We strongly advise breast feeding as the best form of nutrition your babies can receive in early life. Your midwife and our breastfeeding team can help support you in this.

Research in Multiple Pregnancies

Liverpool Women's Hospital and LMPC is heavily involved in research and you may be asked to consider taking part. A Midwife or Doctor will discuss suitable research with you and answer any questions you may have. All research is voluntary and you do not need to take part if you do not want to.

Useful Contacts

If you would like further information about multiple pregnancy and birth, you may find the following resources helpful

Useful websites

Twins Trust www.twinstrust.org

NHS Choices www.nhs.uk

National Institute of Clinical Excellence (NICE) www.nice.org.uk

Infant feeding information

Association of Breastfeeding Mothers Tel: 0844 209 0920 www.abm.me.uk

Twins Trust www.twinstrust.org

Financial advice

www.direct.gov.uk

Social Media

Facebook: Breastfeeding Twins and Triplets UK

Your MCDA Pregnancy Pathway

Gestation	Purpose of Visit	Location
11-13	Dating scan Record chorionicity Fetal labelling/print image in patients notes. Review Give Multiple Pregnancy Information Booklet Offer combined screening for Down's syndrome Reassess risks as now known multiple pregnancy Give aspirin if appropriate (150mg at night) Explain and document plan of care	Booking Clinic
16	Antenatal assessment Quadruple test if required Check Booking Blood Results Scan for TTTS and sFGR	LMPC FMU
18	Scan for TTTS and sFGR	FMU
20	Antenatal assessment Anomaly scan Scan for TTTS and sFGR Cervical length	LMPC FMU
22	Scan for TTTS and sFGR	FMU
24	Antenatal assessment Full Blood Count Discuss preterm labour Issue Mat B1 form Scan for TTTS and sFGR	LMPC FMU
26	Scan for TTTS and sFGR	FMU
28	Antenatal assessment FBC +/- antibody screening Discuss infant feeding Anti D if required Health Visitor Referral Discuss Timing and Mode of delivery Give induction/CS/Pain relief options Scan for TTTS and sFGR	LMPC USS
30	Antenatal assessment Scan for TTTS and sFGR	LMPC USS
32	Antenatal assessment Scan for TTTS and sFGR	LMPC USS
34	Antenatal assessment Arrange date for delivery from 36 weeks gestation Arrange steroids at least 48 hours before caesarean (if needed) Scan for TTTS and sFGR	LMPC USS
36 onward	Weekly CTG and consultant review if declines delivery	LMPC

This leaflet can be made available in different formats on request. If you would like to make any suggestions or comments about the content of this leaflet, then please contact the Patient Experience Team on 0151 702 4353 or by email at pals@lwh.nhs.uk

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