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The West Australian

THE WHOLE NINE MONTHS

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The world-first program that's reducing the rate of preterm birth in Australia

"It is time for preventing preterm birth to become a national priority."
Professor John Newnham AM
2020 Senior Australian of the Year

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Welcome to The Whole Nine Months 2021

Welcome to the 2021 edition of The Whole Nine Months.

Australia's initiative to safely lower the rate of preterm birth began with a statewide program launched in Western Australia in 2014 and is now nationwide. As a result, you will find contributions in this and all future editions of The Whole Nine Months from many of our states and territories. The work of our national Alliance is expanding and you can expect to see an increase in media coverage and healthcare messaging.

Discovering how to safely lower the rate of preterm birth and then evaluating the impact of that effectiveness needs to be one of our highest priorities in contemporary healthcare. Being born too early is the single greatest cause of death in young children in Australia and all similar societies. It is also one of the major causes of disability, both in childhood and adulthood. These disabilities include cerebral palsy, deafness, blindness and learning and behavioural problems.

Such information is not new to those of us who work in this field. But there is an amazing lack of awareness of the importance of preterm birth in the community as a whole. It is most likely this lack of awareness stems from our long-held views that life begins at birth and the gestational age at birth is something that is pre-determined and cannot be changed.

However, the rate of preterm birth has been rising dramatically in Australia and elsewhere over the last two decades. What goes up can also come down and we have shown that to be the case. The Western Australian program lowered the rate of preterm birth across the state by 7.6 per cent in its first year and by 20 per cent in the major tertiary level centre. In the ACT, the rate of preterm birth was reduced by 10 per cent in the first year of their program.

It is reasonable to conclude that implementation of The Whole Nine Months program, using existing knowledge, can safely reduce the rate of preterm birth by 10 per cent or so. Perhaps even more. For our nation with 300,000 births each year, and a preterm birth rate of 8.5 per cent, a 10 per cent reduction would result in at least 2500 fewer preterm births each year. That of course would be a wonderful start, but we have so much more to be done.

One area of increasing importance is the potential danger of being born in the early term period. We have inherited a definition of preterm birth as "birth before 37 completed weeks of gestation". That means that a baby born at 36 weeks and six days gestation is preterm, and a baby born one day later at 37 weeks is technically at term. We now know that one third of brain growth occurs between 35 and 39 weeks gestation. And babies born in the 37 and early 38-week gestational age groups are at increased risk of behavioural and learning problems at school age. Many of these individuals may be at ongoing risk into adulthood.

So the 37 and 38-weeks age groups are now known as "early term", because these ages are too early to be certain that a baby is fully developed. And for that reason you will often see this field overall now described as "prevention of preterm, and early term birth".

At the time of writing, our world has remained in the COVID-19 pandemic. Australia has so far remained relatively spared, but many countries have experienced high rates of death and ongoing illness, together with damage to national economies. Pregnant women can be infected by this virus like anyone else, and have an increased risk of needing to be admitted to hospital, to an intensive care unit and receive ventilatory support. And many will need an emergency Caesarean section to assist with their breathing.

But we have been very fortunate that the COVID-19 virus has difficulty crossing the placenta and infecting the unborn baby. We now know this is because the human placenta lacks the receptor that would enable this coronavirus to pass into the pregnant uterus. It is for that reason the pandemic has not been accompanied by increased rates of miscarriage, stillbirth and preterm labour.

The initiative to lower the rate of preterm birth in Western Australia, and then Australia as a whole, began with introduction and promotion of seven interventions. More interventions shown to be effective are now coming online and this edition contains valuable information on the potential role that Caesarean section in late labour may have on future risk of preterm birth and the role that low-dose aspirin plays in reducing the risk of placental disease and early birth for many women.

There is now much research activity in this field, both in Australia and elsewhere. Please feel free to stay up to date by visiting our various websites, including the Australian Preterm Birth Prevention Alliance, The Whole Nine Months and the Women and Infants Research Foundation, in addition to our many social media posts.

On behalf of the healthcare professionals who are leading the national Alliance, I wish you a happy and safe pregnancy in 2021.

And together we hope you find reading this edition informative and enjoyable.

Professor John Newnham AM

Chair, Australian Preterm Birth Prevention Alliance

AUSTRALIAN Preterm Birth Prevention ALLIANCE

women & infants research foundation

The Royal Australian and New Zealand College of Obstetricians and Gynaecologists

Excellence in Women's Health

The key interventions to preventing preterm birth

More than 26,000 Australian babies are born too soon each year.

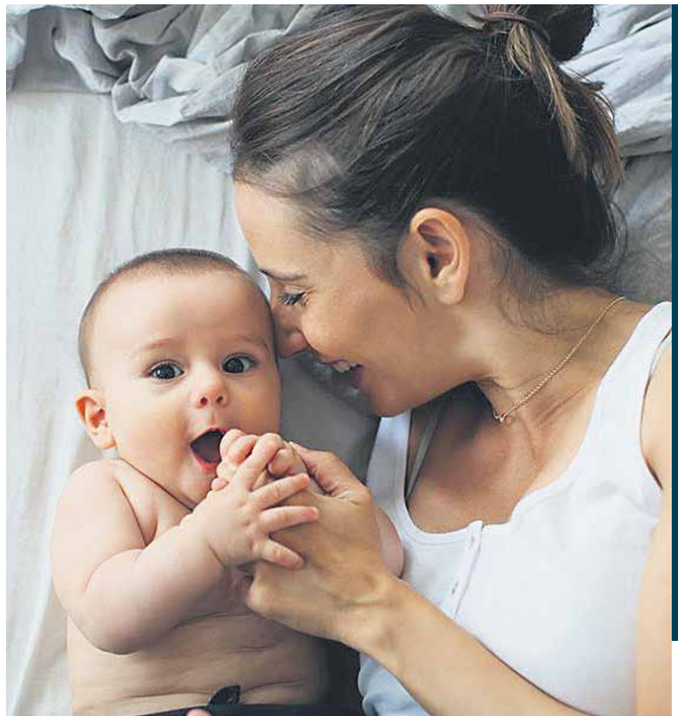
New research discoveries have led to the development of key interventions to safely lower the rate of preterm birth, and are continuing to make pregnancies safer for women and their babies.

1. No pregnancy to be ended until at least about 39 weeks, unless there is obstetric or medical justification.
2. Measurement of the length of the cervix at all mid-pregnancy scans.
3. Use of natural vaginal progesterone (200mg each evening) if the length of cervix is less than 25mm.
4. If the length of the cervix is less than 10mm, consider cerclage or progesterone.
5. Use of vaginal progesterone if you have a prior history of spontaneous preterm birth.
6. Women who smoke should be identified and offered Quitline support.
7. To access continuity of care from a known midwife during pregnancy where possible.
8. Supplementing with omega-3 fatty acids in women with an inadequate dietary intake.

AUSTRALIAN Preterm Birth Prevention ALLIANCE

These interventions have been approved and endorsed by the Australian Preterm Birth Prevention Alliance.

women & infants research foundation



Preterm birth rates plummet in the ACT

The number of babies born prematurely in the Australian Capital Territory has fallen by 10 per cent in the first year following the launch of ACT's own version of the Whole Nine Months program.

This outcome surpassed the expectations of all those involved. But how was this incredible result achieved?

What we did

The ACT branch of the Australian Preterm Birth Prevention Alliance aimed to follow the success of the Western Australian The Whole Nine Months program to address the rates of early birth.

A guideline on the prevention and management of early birth was developed with different pathways to follow for low, medium and high-risk women. The program included a dedicated multidisciplinary preterm prevention clinic with a structured quit smoking program, together with education for healthcare practitioners and pregnant women on avoiding early planned birth unless medically indicated.

Underpinning the importance of midwifery continuity of care, The Whole Nine Months ACT engaged one midwife to be at the heart of the program and stay with each expectant mother for the duration of her pregnancy.

A formal launch of the initiative took place with Ministerial endorsement, followed by a three-month outreach education program across the ACT and surrounding New South Wales areas.

After 16 months of the initiative, ACT was happy to announce an overall reduction of preterm births by 10 per cent, which resulted in approximately 45 early births being averted. The ACT team was also able to demonstrate a significant reduction of early term births (37 and 38 weeks gestation) by 34 per cent, which equated to approximately 77 early term births being averted.

What we are still to do

This was a phenomenal result born by the hard work of the many clinicians and pregnant women involved in the initiative endorsing and adopting the new guidelines.

When the findings were reviewed they demonstrated that the most dramatic effects were in the first few months from the roll out of the initiative, with results beginning to plateau as the year went on.

This showed us there is still important work to be done to continue to promote the good work of the initiative to continue lowering rates of early birth.

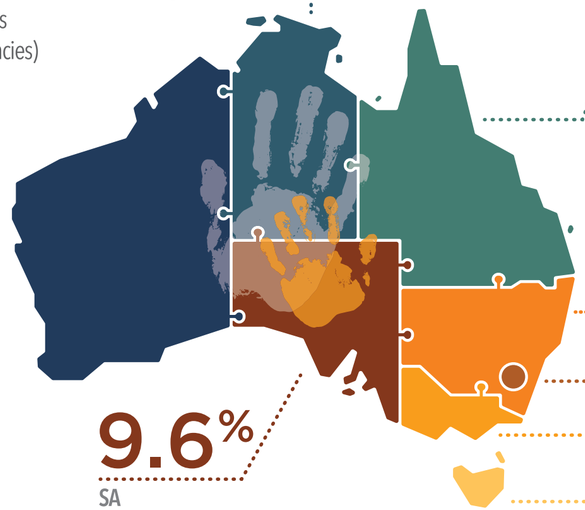
We are grateful to Mrs S Liangis AO for her kind donation through the Canberra Hospital Foundation to enable the project to be initiated.

(L-R): ACT mother Karli World with baby Quinn, midwife Julia Smythe and Assoc Prof Boon Lim.

Associate Professor Boon Lim and Dr Roberto Orefice
Co-Leads, ACT Australian Preterm Birth Prevention Alliance

Rates of preterm birth (%) in each state and territory

Preterm births reflect all births (single and multiple pregnancies) (2016*)



10% NT
9.4% QLD
7.3% NSW
8.3% ACT
8.3% VIC
11.3% TAS
9.6% SA
8.5% WA
8.5% Overall rate of preterm birth in Australia

*2016 is the most recent year for which comparable data are available for every state and territory.

A joint effort and holistic approach to preterm birth prevention

If this pandemic has taught us anything it is that we can achieve a lot by working as a team. By "doing the right thing" most of us can live a semi-normal life again after months of lockdown.

We learnt that we have a shared responsibility to achieve our goal of a healthier society. This also applies to the prevention of preterm birth – each one of us plays an important role in addressing this major threat to the health of our community.

It all starts in the home environment well before families decide to embark on the exciting journey of pregnancy. Weight loss prior to pregnancy, an active lifestyle, a healthy diet and smoking cessation all help prevent early birth. If necessary, the woman and her partner should adopt a healthy lifestyle before planning a pregnancy.

General practitioners (GPs) should get involved in maternity care as soon as pregnancy is confirmed. GPs will perform blood and urine tests, arrange ultrasound scans and discuss recommended routine antenatal care with the woman and her family. The family doctor should start natural vaginal progesterone if there is a history of spontaneous preterm birth or the cervix is short on ultrasound scan.

Once referred to the hospital, allied health services, specialists and midwives will work as a multidisciplinary team depending on a woman's individual risk of preterm birth.

Pharmacists can review current medications and dosing in pregnancy. Dietitians can assist the woman with healthy weight gain and discuss fish oil supplementation if the woman is on a fish-free diet. Social workers can support families with psychosocial stresses at home. They can provide information about payments and services to help families with the expenses to raise a child.

Obstetricians, midwives, medical specialists and mental health experts will work as a team in the hospital to ensure that all aspects of the woman's individual needs are met – no matter how complex they are. Risk factors of preterm birth can be addressed early and delivery planning discussed towards the end of pregnancy. Good communication within the team of experts and with the woman will ensure pregnancy can safely continue and unnecessary intervention resulting in early birth of the baby is avoided if possible.

This holistic approach to preterm birth prevention will support families through their pregnancy journey and result in improved health of mothers and children. It's the joint effort that counts.

Dr Christoph Lehner
Co-Lead, QLD Australian Preterm Birth Prevention Alliance

The importance of your mid-pregnancy scan

Measurement of the length of the cervix in mid-pregnancy is one of the best predictors for preterm birth. The measurement is easily done as part of your mid-pregnancy ultrasound scan.

A shortened cervix between 16 and 24 weeks of pregnancy is strongly associated with preterm birth and a long cervix is associated with a term birth. Measurement of the cervix outside of these dates is poorly predictive of when labour will occur. The earlier a short cervix is identified in mid-pregnancy, the faster treatment can be provided to try and prevent preterm delivery.

Routine measurement of the length of the cervix at the mid-pregnancy scan was introduced in Western Australia in 2014. It was shown to be effective and is now standard of management across most of Australia. Having a shortened cervix in mid-pregnancy comes with no symptoms and women would not be aware. It is for that reason the measurement is recommended as a routine for all.

There are two ways to measure the length of the cervix using ultrasound: either as part of the usual transabdominal scan, or by the additional use of a special transvaginal approach. When using the standard transabdominal approach, measuring the cervix is relatively straightforward. For most pregnancies this approach is quick and is all that is required.

However, there are times when a transvaginal (internal) scan is required. Either because the cervix cannot be imaged adequately during the regular scan, or if more information is required because of the pregnancy being at high risk of preterm birth.

If your cervix is found to be short on transvaginal ultrasound between 16-24 weeks of pregnancy, it is important that treatment to prevent preterm birth is commenced that day.

Treatment can include either vaginal progesterone or a stitch to the cervix. Vaginal progesterone is a small tablet of the natural hormone progesterone, inserted into the vagina each evening at bedtime until 36 weeks of pregnancy. Regular ultrasounds to review the cervical length in women who have been identified with a short cervix are sometimes performed to monitor the cervical length up to 24 weeks.

Michelle Pedretti
Chief Sonographer
King Edward Memorial Hospital

Cervix length scan changes the course of Catherine's pregnancy

When Catherine and Mathew Korteweg first began planning their son's fourth birthday, they didn't think Beau becoming a big brother would be a belated present just days later.

Despite enjoying a textbook pregnancy, it was the recommendation of an experienced midwife that Catherine's pregnancy be observed more closely by an obstetrician due to inflammatory arthritis and a pre-existing placenta issue.

"I was on a pretty standard care plan throughout the pregnancy, taking low-dose aspirin early on as a mitigating strategy for the medication I was on. No concerns had been flagged that needed investigation at my initial scans."

It wasn't until her 28-week scan that a sonographer saw Catherine's cervix was short at 12mm and had started to funnel. What followed was a whirlwind week for the Korteweg family.

"As we are rural, she called my midwife straight away who phoned the obstetrics team and sent me to be checked out. At the time I thought I was going to just have an overnight stay, be examined and sent home," Catherine said.

The obstetrician explained to Catherine that she was at very high risk of preterm labour.

"If I went into labour early and an ambulance took too long, things wouldn't be good. I was put on progesterone and advised to stay in the city to be close to the hospital and come back in a week for another scan.

"I remember feeling very overwhelmed all of a sudden. We are self-employed dairy farmers with a four-year-old. The thought of just not going home that day to sort everything out, and being away from Beau indefinitely, was very confronting."

The following week's scan showed her cervix had shortened further to 5mm.

Despite doubling the progesterone dose and undergoing a course of steroid injections, things began to unravel very quickly. An examination revealed Catherine was having regular contractions, with her amniotic fluid leaking.

Born via an emergency C-section at 29 weeks and weighing 1440 grams, Leo was welcomed into the world by mum and a still out-of-breath dad who had arrived into theatre just minutes earlier.

"I can remember a deafening silence as I looked up wondering if he was OK, hoping he was OK, and then we heard him cry and there really is no better sound," Catherine said.

After spending six weeks and two days in the NICU, Leo was welcomed home to Leneva Farm with minimal health complications.

Since their preterm birth experience, Catherine and Mathew have a new appreciation of the Alliance's work to prevent preterm birth and its far-reaching impacts.

"Since our journey with Leo, a friend in WA told me about Professor John Newnham and his pioneering research to prevent preterm birth, particularly around cervix length," Catherine said.

"Before my experience, I had absolutely no idea that cervix length was, or could be, measured, or the significance it has in predicting preterm birth. Leo is here today, in the health that he is in, because of it and the team of incredible health professionals that looked after Leo and me."

A model of maternity care

Receiving care throughout pregnancy by a midwife who is known to you is now referred to as a midwifery continuity of care model. This method of healthcare service is one of the best public health strategies available to prevent preterm birth.

In fact, high-quality evidence suggests that preterm birth is reduced by around 24 per cent in such models when compared with other types of maternity care.

Encouragingly, recent research from Queensland has demonstrated that Aboriginal and Torres Strait Islander women who received midwifery continuity of care had up to a 50 per cent reduction in preterm birth compared to women in standard care.

This outcome is so significant that the authors of the study called for an upscaling of this model of care, known as 'Birthing in Our Community', right across the country.

The Australian Preterm Birth Prevention Alliance recommends midwifery continuity of care as an important way to safely reduce the rising rate of preterm birth in Australia. Similarly, continuity of care and carer, including by midwives, was also recently recommended by the NHMRC Centre of Research Excellence in Stillbirth as an important strategy to prevent stillbirth in Australia.

There are many different ways midwifery continuity of care may be provided in both public and private settings. This model of care is increasing across Australia.

In addition to reducing preterm birth, research indicates that women highly value the experience these models provide. As they expand, midwives and health services are finding new and creative ways to provide midwifery continuity of care to women and their families.


Paula Medway.


Natasha Donnolley.

Some rural services are replacing their traditional models of care in which maternity units are staffed around the clock. Instead they offer women care with a known midwife who is 'on call' to provide care, including birthing, whenever needed.

Another emerging model of care is where a named midwife provides continuity of antenatal and postnatal care, but not birthing services. Preliminary research indicates that this is also an effective and valued way for women to receive midwifery continuity of care.

There are now many ways in which women can receive continuity of care from midwives during pregnancy. Due to their increasing popularity, women considering a midwifery continuity model are strongly encouraged to explore what options are available in their local communities either before they become pregnant or as soon as possible after.

Paula Medway
Senior Midwifery Advisor, Australian Preterm Birth Prevention Alliance

Natasha Donnolley
Consumer Representative, Australian Preterm Birth Prevention Alliance

Preterm birth for Aboriginal and Torres Strait Islander babies: why is it still such a burden?

In my antenatal clinics I have the great privilege of looking after women from remote Aboriginal communities. Usually it's a fairly short and brief friendship. Women come in to town for 'sit down'. That is, waiting for their babies to arrive so as to avoid unplanned birth in their communities where resources can be limited. I get to know them at this time.

But sometimes my relationships are lengthy. Sometimes expectant mothers are in town and away from their families for longer. Especially if they have medical conditions that can impact their pregnancies and for which they need closer, tertiary-level care.

Recently one of my patients was stuck in town for many weeks. She was having her first baby. Unfortunately she has rheumatic heart disease (RHD and at the tender age of 15 she had an operation to repair her heart valve. Because of this she needed extra monitoring. She was quite sad about being away from home for so long, but our local midwives were able to develop a good relationship with her and give her good quality care.

Medical problems

Sadly medical disorders affecting pregnancy outcomes is a real issue for Aboriginal and Torres Strait Islander women. Pregnancy can sometimes be a vulnerable time for First Nations women, especially for those with pre-existing medical conditions.

Being born too early also remains a huge issue for Aboriginal and Torres Strait Islander mothers and babies and one of significant disproportion. Between 2016 and 2017, the rate of preterm birth in Aboriginal and Torres Strait Islander babies reached almost 15 per cent. In many regions in Australia, Indigenous babies are twice as likely to be born too early.

A couple of years ago I was investigating the causes of stillbirth at my hospital. Almost all the babies that were born sleeping were premature. But I was shocked to discover that nearly one in five stillbirths were caused from medical conditions in the mums.

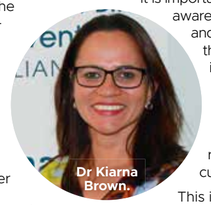
One such medical disorder that we deal with too frequently in my hospital is RHD. Where I work, RHD is a disease that is almost exclusively found in Aboriginal mothers. It affects young people and there is a wide variation in the severity of the disease. Devastatingly about 28 per cent of pregnant mothers with RHD will have a preterm baby.

Social determinants of health

Many chronic medical conditions would be better controlled if vulnerable populations such as Aboriginal and Torres Strait Islander people lived with the same basic luxuries as non-Indigenous people who enjoy good health.

The social determinants of health are the conditions in which people are born, grow, live, work and age. These circumstances are shaped by the distribution of money, power and resources. The social determinants of health are mostly responsible for health inequities – the unfair and avoidable differences in health status seen within and between countries.

Some such determinants that lead to poor health for my patients include living in overcrowded houses because of lack of safe and affordable housing. It can include chronic poor health because of difficulty accessing quality, multidisciplinary healthcare and resources.


Dr Kiarna Brown.

What's the solution?

There is little to gain unless we address the root cause of the problem. Babies will continue to be born preterm if we do not address the basic health needs of the mothers growing them.

Health status cannot be fixed without addressing the social determinants. Without quality housing, food security, transport, access to good healthcare, education, income and social standing, health in disadvantaged populations will not improve. And we will continue to see high rates of poor outcomes.

But central to achieving effective change rests in recognising that Aboriginal and Torres Strait Islander health status needs to be a high priority.

It is important for all of us to remain aware and to always be learning and striving for better. It is vital that our health workforce is well informed about the importance of improving health outcomes for Aboriginal and Torres Strait Islander people. It is important for our health services to remain culturally respectful and culturally competent.

This is something we can all contribute to. It will take a collaborated effort to close the gap.

And as for my patient... she eventually went home, with a healthy baby who was born at term. This was achieved through good quality and respectful care.

Dr Kiarna Brown
Obstetrician and Gynaecologist Darwin, NT Australian Preterm Birth Prevention Alliance

Good preconception care can improve pregnancy outcomes

Despite the success of fertility treatment in Australia, a woman who takes longer to conceive than her friend or colleague will have a slightly higher risk of complications in pregnancy than a woman who conceives easily.

It is also true that there is a slightly higher risk of congenital abnormalities (malformations) for the child, and this risk even exists for women who conceive while waiting to undergo fertility treatment.

The reasons for this are not entirely clear, however it is believed that a substantial amount of this risk relates to the health of the couple at the time of conception. It is amazing to think that the health of the male partner is reflected in the quality of the sperm, and a woman's health significantly impacts on the success of embryo implantation, miscarriage risk and pregnancy outcome. Therefore, it is essential a couple are fit for pregnancy.

What does this mean for the male partner? A healthy balanced diet, stopping smoking, following his general practitioner's (GP) medical advice, doing some exercise and possibly taking a multivitamin tablet.

It is even more important that the female partner is as healthy as possible at the time of conception and stays healthy throughout pregnancy.

To optimise her health she is also encouraged to visit her general practitioner (GP) to ensure:

- All medications being taken are safe for pregnancy
- She is taking an appropriate amount of folic acid
- Her weight and diet are optimal and she is otherwise healthy, as for some couples it is often important to correct a medical condition before trying to conceive.

It is very important that women who are overweight and plan to undergo gastric band surgery should not get pregnant for one year after the operation, due to the major weight loss that follows leading to nutritional problems for her baby.

When should you seek help for fertility?

Couples are often unsure when they should seek a doctor's help to investigate any potential problems while trying to conceive. Generally, couples are advised to try for one year before they seek assistance. However, a woman who is 35 years or older should seek assistance after six months of trying to get pregnant.

If the woman or her partner have, or have had, any significant health concerns then the general advice is to seek assistance sooner, as they may have difficulty getting pregnant or some health concerns may need to be improved to help them conceive.

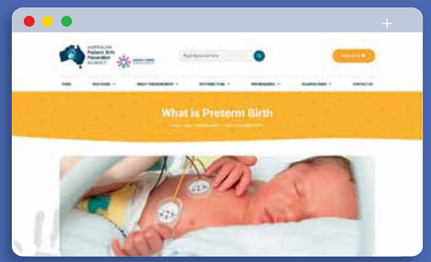
If a couple need to seek expert advice, they should discuss this first with their GP. At a fertility clinic, it is very important that couples are given appropriate patient-centred care to treat them as individuals, as every couple has their own unique concerns and challenges.


Professor Roger Hart.

It is important to state that infertility treatment does not mean in vitro fertilisation (IVF) treatment, as with expert care many couples can be assisted without the need for IVF. Not only is this the best for the woman undergoing the fertility treatment, it is the best for her baby.

Professor Roger Hart
Head of Fertility Services, King Edward Memorial Hospital and Medical Director, Fertility Specialists of Western Australia

"If a couple need to seek expert advice, they should discuss this first with their GP."



Alliance website – a key resource for all mothers and families

The Australian Preterm Birth Prevention Alliance continues to grow its newly launched website.

The website provides enhanced access to key members of the Alliance, as well as the latest news, events and research activities underway in each state and territory to lower rates of preterm birth.

www.pretermalliance.com.au

Caesarean section after a long labour: What you need to know

Identifying risk factors for preterm labour and birth is a critically important aspect of maternity care.

Doing so allows us to offer treatments such as progesterone to women at high risk that may reduce the chance of preterm birth. It also potentially gives us the opportunity to prevent the risk factor from developing in the first place, through awareness and changes in practice.

It has recently been identified in a number of clinical studies that emergency caesarean section at full or advanced cervical dilatation is an independent risk factor for preterm birth in the next pregnancy.

At the start of labour, the uterine cervix – or the neck of the womb that protrudes into the top of the vagina – is closed, but gradually opens up as contractions occur and labour progresses. When the cervix is 10cm open, it is said to be fully dilated and the baby's head can then descend through the cervix into the vagina before being born.

Sometimes, despite the cervix achieving full dilatation, the baby's head does not descend into the vagina adequately. This can happen when the baby is big overall, or the baby's head is too big for the mother's pelvis. Alternatively, the baby's head may be positioned in such a way that it doesn't fit easily into the mother's pelvis and therefore fails to descend sufficiently to allow a spontaneous vaginal birth.

Midwives and obstetricians can do a number of things that may overcome these problems. The contractions can be strengthened by starting or increasing an intravenous infusion of oxytocin – the hormone that stimulates contractions. Extra pain relief in the form of an epidural may help the muscles relax, and occasionally all that is required is some extra time. If these measures do not work and the baby's head has not been born despite the mother pushing, it is often possible to help this process by using forceps or a vacuum (an instrumental vaginal birth).

There are times, however, when no matter what measures we try, the baby's head never descends low enough for it to be safe for us to help the baby be born vaginally. In these relatively uncommon instances, a caesarean section is required to ensure mother and baby are not compromised by an obstructed labour.

We do not yet know why caesarean sections performed at or close to full dilatation increases the risk of spontaneous preterm birth in a subsequent pregnancy.

It is likely that the structural integrity of the cervix is damaged in some way during the caesarean surgery. Ideally, women with a history of a caesarean section in the late stages of labour should undergo cervical surveillance in their next pregnancy, with frequent ultrasound examinations of cervical length in the mid-trimester to look for changes that may indicate a need for progesterone therapy or placement of a cerclage (cervical stitch).

It is also important for maternity care providers to be aware of the long-term risks of a caesarean section at full dilatation and only resort to this when all other measures have been safely exhausted.

Dr Stefan Kane
Maternal Fetal Medicine Subspecialist Obstetrician and Head of the Fetal Medicine Unit, The Royal Women's Hospital, Melbourne, Victoria

Omega-3 fatty acid in pregnancy – new tests to prevent early birth in SA

The Whole Nine Months South Australia is taking an exciting new step to provide pregnant women with personalised advice about when to take omega-3.

Based at the South Australian Health and Medical Research Institute (SAHMRI), the research group has shown that omega-3 supplementation can prevent preterm birth, but only for women who are low in omega-3 at the start of their pregnancy.

We have teamed up with SA Pathology to integrate omega-3 testing into the existing SA Maternal Serum Antenatal Screening program.

Omega-3 levels will be measured from the blood sample that women give in early pregnancy at their general practitioner or maternity service, with no out-of-pocket costs. After a year of planning and consultation, we are about to go live and soon test results will be available to women and their maternity care providers.

As only some pregnant women need to take omega-3, results of the test will quickly let women, who are carrying a single baby, know if they need to take omega-3 supplements or not. The test will inform women if their omega-3 levels are low, moderate or sufficient and what action they should then take.

- Low status (less than 3.7 per cent):
  - Take omega-3 supplements until 37 weeks (800mg docosahexaenoic acid and 100mg eicosapentaenoic acid a day).
- Moderate status (between 3.7 per cent and 4.3 per cent):
  - If already taking omega-3 supplements as part of a multivitamin and mineral supplement, this may continue.
- Sufficient status (more than 4.3 per cent):
  - Risk of early preterm birth is low and additional omega-3 supplementation will have no benefit.

These omega-3 levels are percentages of total omega-3 fatty acids. Levels much higher than 4.3 per cent may even increase the risk of preterm birth.

With ethics approval to link omega-3 test results with numbers of preterm births, our research group will be able to check whether the specific advice for women outlined above can reduce the rate of preterm births in SA. If successful, we plan to extend the omega-3 test nationally and internationally.

Philippa Middleton, Monika Skubisz, (Alliance & SAHMRI)**, Lucy Simmonds, Karen Best, Robert Gibson, Ge Liu and Maria Makrides** (SAHMRI), Adelaide, South Australia

Every week counts in the lead up to birth

New research out of New South Wales has highlighted the benefits of birthing as close to 40 weeks as possible.

The Women and Babies Research team at the Kolling Institute, Sydney, NSW, has provided evidence-based information to promote the key messages of the Every Week Counts campaign.

Twenty years ago, the majority of women gave birth at 40 weeks. Today, it's between 38 and 39 weeks and continuing to get earlier.

This trend is due to the growing number of planned early births at 36, 37 and 38 weeks, either by induction of labour or by planned caesarean section prior to the onset of labour.

Women and Babies Research Director, Professor Jonathan Morris pointed to increasing evidence around the benefits to babies when born as close to 40 weeks as possible.

"There is very important development in the last few weeks of pregnancy," Professor Morris said. "A baby's brain for instance increases in weight by 50 per cent in the last four to five weeks of pregnancy.

"Our research indicates that for every week a baby can remain safely inside their mother's womb, their short and long-term health and developmental outcomes improve.

"In the short term, babies born early are more likely to need help with their breathing, be admitted to a neonatal intensive care unit, have jaundice and spend longer in hospital.

"In the medium term, they are more likely to be readmitted to hospital in the first year of life, and in the longer term, early births are linked to an increased risk of developmental problems such as poorer school performance."

Professor Morris acknowledges the circumstances around each birth needs to be considered.

"Any benefits of prolonging pregnancy need to be balanced against the small risk of stillbirth, which increases with gestational age from two per 10,000 ongoing pregnancies at 35 weeks of gestation, up to seven per 10,000 ongoing pregnancies at 40 weeks of gestation," he said.

"With new research data now available, we would like to ensure that women are aware of the many benefits of prolonging pregnancy weighed against the small risk of stillbirth.

"It's important for women and their healthcare providers to be able to make informed decisions based on the latest evidence-based data and research."

The Every Week Counts campaign is an important element of the Australian Preterm Birth Prevention Alliance.

For more information, visit www.everyweekcounts.com.au.

Professor Jonathan Morris
Royal North Shore Hospital, Sydney, NSW

The Australian Preterm Birth Prevention Alliance is a national partnership with a singular goal – to safely lower the rate of preterm birth across Australia.

The Alliance is supported by the Women & Infants Research Foundation

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Proud to support The Whole Nine Months and the Australian Preterm Birth Prevention Alliance in their mission to lower the rate of preterm birth in Australia.

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