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Fact Sheet 18

IVF Pregnancy

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This fact sheet on IVF pregnancy is designed to help you both with early pregnancy information after IVF or other Assisted Reproductive Technologies (ART).

It is important for all infertile people to know that there has probably never been a safer time for a woman to be pregnant and have a baby in Australia than at this time. Your obstetrician, a highly qualified specialist doctor who has done extra training in the care of women during pregnancy and delivery, will provide every assistance to ensure that your pregnancy is a joyous time for yourself and your baby. Nevertheless, it is important to understand that pregnancy cannot be guaranteed to be risk free.

The Australian Institute of Health and Welfare's National Perinatal Statistics Unit (NPSU) has emphasised the risks which occur to all Australian women who are contemplating pregnancy and it is important that this information be carefully understood.

Many people will be unaware of the following risks associated with any pregnancy in Australia. These are that more than 15 per cent of pregnancies, (one pregnancy in seven) will miscarry. It is also a fact that six to eight per cent of babies (one baby in fourteen) will be born pre-term. Of Australian babies born at the present time, about one per cent (one baby in a hundred) dies around the time of birth. Furthermore, five per cent (one baby in twenty) will have a notifiable birth defect. In addition to this, 0.2 - 0.25 per cent (one baby in four hundred) will develop cerebral palsy (*Medical Journal of Australia*, 162:85-89, 1995). It is extremely important for all people undergoing assisted reproductive treatment to be aware that these are the risks associated with any pregnancy in Australia. These figures occur regardless of whether pregnancy and birth is natural or requires treatments like IVF or other ART.

It is against this background that the results from the Australian and New Zealand experience of IVF and ART can be considered. The latest report by Yueping Alex Wang and colleagues (*Assisted Reproduction Technology in Australia and New Zealand 2004*) continues to show rates of various IVF and ART in terms of outcome of pregnancy. These particular events are summarised below.

Miscarriage or Spontaneous Abortion

The chance of miscarriage or spontaneous abortion from any of the assisted reproductive techniques has been similar for several years. Approximately 20 per cent of these pregnancies will miscarry. It is very clear that the risk of miscarriage or spontaneous abortion increases very considerably as a woman ages.

Data from 2003 shows the risk of spontaneous abortion was only approximately 15 per cent in ART women aged younger than 25 years but was 36 per cent in women aged 45 years or older. This risk of miscarriage was similar for IVF pregnancies as well as with pregnancies conceived after ICSI (intracytoplasmic sperm injection).

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Ectopic Pregnancy

Ectopic pregnancy seems increased in patients having ART. The chance of ectopic pregnancy occurring was around 1.6 per cent of ART pregnancies in the most recently available data. In patients who conceived naturally, it is generally suggested that the chance of ectopic pregnancy is approximately one per cent (one pregnancy in a hundred). Almost all ectopic pregnancies are in one or other uterine (fallopian) tubes.

Premature Labour

Premature labour is clearly more common in people needing ART than appears to occur in the general Australian population. The chance of pre-term birth in ART pregnancies with one baby is 10.9 per cent, higher than that which would be expected in all Australian pregnancies. The reasons for this increased rate with premature labour are unknown. As one might expect, if there is a twin pregnancy from ART, the chance of preterm delivery is increased. The mean duration of pregnancy was 37.4 weeks.

Multiple Births

Multiple births occurred in 13.5 per cent (one in seven) of ART pregnancies in 2004. The great majority of these multiple pregnancies were twins, although higher order multiples did account for 0.2 per cent of these pregnancies. Any multiple pregnancy greatly increases the risk of premature birth.

Caesarean Section Rates

Caesarean birth rates continue to be higher for pregnancies delivered following ART than for all Australian births. In 2004, the chance of having a Caesarean section for a pregnancy with one baby was 44.9 per cent. This increased to 76 per cent for a multiple pregnancy. This compares to a Caesarian section rate of 28.5 per cent in the Australian population in 2003.

Maternal age seems a strong predictor of Caesarean section in ART pregnancies. The rate of Caesarean section with IVF and related pregnancies increased with advancing age of the mother. This increase was from 46.6 per cent for women aged less than 38 years to 59.7 per cent for women aged over 38 years.

Birth Weight

The average weight at birth and the chance of having a baby of low birth weight (less than 2500 grams or 5.5 pounds) for a baby born after IVF and related treatments can be compared with all Australian births. The average weight at birth of an ART baby in 2004 was 3054 grams, which was 318 grams less than the mean birth weight of 3372 grams for a typical Australian baby born in 2003. The high rate of multiple births after IVF and similar procedures accounted for much of this difference.

Babies Dying Around The Time of Birth

As stated above, approximately one per cent of babies die around the time of birth following spontaneous pregnancy throughout Australia. For ART births, this rate is increased to around two per cent. The chance of a baby dying around the time of birth is slightly increased in twin and triplet pregnancies compared with a single pregnancy and due to premature birth.

Birth Defects

Most studies have shown that there is no increase of birth defects in babies born of ART. However debate does continue and a recent review which combined various studies suggested that babies born following IVF or ICSI are at a small but significantly increased risk of birth defects compared to natural conceptions. To put this in context approximately four in a hundred of all births have a birth defect and that with a child of ART this could rise to five to eight per a hundred births.For birth defects which are quite rare (occurring in 1 in 500 births to 1 in 5000 births) the ability to collect data on as yet relatively small sample sizes prevents conclusions being made. Children born after IVF maybe more likely to develop Beckwith-Wiedemann syndrome. The long-term outcome for these children is positive, if treated. One Victorian study has shown the risk of this defect is 1 in 4000 for IVF babies compared with 1 in 14,000 to 1 in 35,000 in naturally conceived babies.

This fact sheet has provided information to keep infertile couples up to date with the pregnancy risks in Australia. It must be emphasised, however, that many infertile couples have joyous and normal pregnancies and normal children. Your doctor is in the best position to advise you on the normal joys of pregnancy such as 'telling people', sexual activity, nutrition, exercise and lifestyle changes.

Please do not hesitate to ask your doctor about any of this information.

Professor David Healy

Emotional Facts

Contrary to widespread assumptions, a pregnancy does not 'cure' infertility. Fertility disappointments can affect the experience of pregnancy and the adjustments a couple make in moving towards parenthood.

Affects of Infertility

When fertility cannot be taken for granted, a couple's appreciation of conception may be greatly intensified. There are few joys as great as those for which we strive and struggle and the resulting child may be forever precious and appreciated. A couple may be less likely to thoughtlessly dismiss the privilege of parenthood, or to imagine they did not really choose this destiny.

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Many couples use the time of treatment and pregnancy to examine their desires for a family in a way that few fertile couples require of themselves. Most couples want to be sure they want a family together before they embark on treatment. Some consider in great detail what sort of parent/s they will be and attempt to learn all they can about that job. There is a sense of 'should we be so lucky we're going to make sure we get it right'. There is some evidence however that infertility and treatment can also have some negative effects. Some people find their self-esteem is battered by the loss of a sense of control, the unfamiliar experience of failure, the loss of privacy and loss of an overall sense of personal mastery. Unfairly, some people experience infertility as a judgement and believe that perhaps they were never 'supposed' to become a parent.

Particularly during prolonged infertility, most people will develop some pretty solid defensive coping strategies, which may include:

- getting 'used' to failure
- readjusting life goals
- anticipating poor outcomes
- thinking less about children
- avoiding pregnant women and young families
- questioning the desire to become a parent
- investigating other life possibilities
- talking less about treatment and hopes
- becoming fatalistic

Sometimes these defences or adjustments may happen at an unconscious level. You may only be aware that you feel a bit numb, or a bit confused, or that somehow the pain is not as intense as it was, but you don't know why. These defences are necessary to keep you going in a situation where grief and uncertainty could be overwhelming. If you then become pregnant, it can be very difficult to let go of these protective defences.

When a pregnancy happens

Along with the joy of finally receiving a positive pregnancy result, there can be a feeling of entering another uncertain life phase. For anyone, the most common response to uncertainty is to depend on tried and trusted coping strategies.

Those who have experienced long-term infertility may automatically anticipate a poor outcome or struggle to acknowledge that the pregnancy is real and that it will probably progress. They may tend to overestimate the probability of a miscarriage and be torn between ecstatically telling 'everyone' and keeping the pregnancy a secret because they are sure they will 'fail' again. They may be shocked by the thought of actually becoming a parent and feel overwhelmed by that task. They may feel a continuing sense of failure because the pregnancy did not occur 'naturally'. There is often resistance to allowing thoughts of a positive outcome.

The people who have been witness to an experience of infertility — family, friends and workmates will often have also been carrying considerable sorrow and helplessness. The news of a pregnancy will mean not only great joy, but also enormous relief. Understandably, many friends and family members may be reluctant to acknowledge doubts, uncertainties and anxieties as the pregnancy progresses. There may be subtle pressure to be the embodiment of the joyful hope of the future, so as to assure everyone that the sadness of the past is over for good.

There may also be well-intentioned pressure to produce the perfect miracle child, and to become the perfect parent/s. Sometimes this pressure comes from inside as well as from others. A pregnant woman may feel she isn't entitled to feel down in the dumps or fed up with morning sickness. Her partner may feel it is not right to have concerns about the possible loss of freedom as a result of family life.

Adjustment to pregnancy

Perhaps the most important step in adjusting to a pregnancy after IVF treatment is to accept that whatever you are feeling is probably normal. It is extremely difficult to move from a phase of adjusting to and coping with disappointment, to a phase of anticipating success. It is completely natural that some of your coping mechanisms will still be with you and will still influence your outlook.

It may mean that you accept it will take a little longer to believe in the pregnancy, to buy maternity clothes, and to start preparations for the new baby. You may still find it difficult to be surrounded by 'baby talk' because part of you may still be thinking, "Yes, but my pregnancy isn't going to continue".

Similarly to the experience of infertility, you may need to find someone who can understand that you don't always feel as positive as those around you. You are entitled to have those feelings heard without being judged as ungrateful or negative. You are also entitled to have the same ambivalence that any expecting parent may have. There may be days when you wish it would all go away, when you feel scared, or when you feel sick and tired. None of this means you didn't really want the pregnancy, or that you don't deserve it. You are entitled to experience your very own pregnancy just as it is for you. It will be important that your child does not have to live up to the goal of being the perfect child, or of compensating for all the pain and sadness that may have preceded the conception.

The child too will be entitled to find and live their life as it is for them. Some people find it helpful to have increased monitoring of their pregnancy after IVF

conception, and many obstetricians and GPs are sensitive to this. Again, this is an individual thing, but it may give you the much needed reassurance that everything is going OK.

If there are problems during the pregnancy, you may want to be sure that you know about them as early as possible so that your expectations are realistic and you can prepare for the outcome.

Preparing for parenthood

For those who have experienced infertility, the social discussions about child raising can be painful and tedious. They are, however, often the way we anticipate a new role, gain new ideas or reassure ourselves we are on the right track. If you have been tuned out to these discussions for some time, you may have missed out on some informal preparation for parenthood. It may be useful to think consciously about how you can restart that preparation now that you are pregnant. You may want to delay this preparation until you feel more certain that the pregnancy is secure. If you think you won't feel secure about the pregnancy until the baby is in your arms, you may simply have to pick a time at which you will turn your thoughts to parenting.

You may want to buy some books, enroll in a course or simply start asking friends and families about their views on various parenting issues. What is important is the process of turning your mind to the next step. This may help to ease the transition into parenthood.

'Emotional facts' reproduced with kind permission of Kay Oke ed., from Taking Charge of Your Infertility, Melbourne IVF, 1999

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