



# Surrogacy’s Past, Present, and Future

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## The Early History of Surrogacy

Traditional surrogacy has been practiced for centuries as a means of helping women to have children who were unable to conceive and bear children themselves. The earliest reference to traditional surrogacy is in the Old Testament at around 2000 BC [1]. Abraham’s wife, Sarah, was barren – unsurprising at the age of 86. Her handmaid, Hagar, was induced or persuaded by Sarah to bear a child for her and Abraham, who “went into Hagar, and she conceived” and bore a son, Ishmael, for the couple. Interestingly, Sarah, after a later visitation from three angels, conceived at a very old age and bore a son of her own, Isaac.

In Babylonian times, around 1800 BC, King Hammurabi developed what is known as the Hammurabi Code of Laws (a most remarkable document) setting out his version of the law at that time. Among the many laws was one that, although monogamy was the rule, stated, “A childless wife might give her husband a maid (who was no wife) to bear him children, who were reckoned hers” [2].

Other civilizations over the centuries have, either overtly or covertly, allowed or condoned the practice of surrogacy. When John Hunter, of St. George’s Hospital, London, first developed the concept of artificial insemination, it became possible to inseminate the proposed surrogate artificially, rather by intercourse, which was more socially acceptable [3]. In 1980, a lawyer in the United States named Keane brokered the first legal agreement in a traditional surrogacy arrangement.

It was not until 1978 when *in vitro* fertilization (IVF) was shown to be successful for the first time by the birth of Louise Brown that embryos created entirely from the gametes of a “genetic” or “commissioning couple” could be transferred to a “surrogate

host,” who therefore provided no genetic contribution to any child that resulted from the arrangement. The host bore the child and relinquished it to the full “genetic parents.” “Gestational surrogacy,” otherwise known as “IVF surrogacy” or “full surrogacy,” is now accepted in many countries as a treatment option for infertile women with certain clearly defined medical problems [4]. The first report of a baby being born by gestational surrogacy was from the United States in 1985 [5]. This was to a 37-year-old woman who had previously had a cesarean hysterectomy after her IVF-conceived baby had died.

In 1986 at Bourn Hall Clinic, despite opposition from the British Medical Association (BMA) and against the recommendation of the Warnock Report to the UK government [6], Drs. Patrick Steptoe and Robert Edwards, the pioneers of IVF, first proposed treating a patient by IVF surrogacy [7]. After extensive discussions with the independent Ethics Committee to the clinic, they undertook treatment of their first couple. A child was born in 1989, the first outside the United States. This author formalized the full program in 1990, and our experience and outcomes of the first 10 years of our program at Bourn Hall Clinic were published in 2000 [8].

## Definitions of Terms

It is appropriate at this stage to review the different terms used in traditional surrogacy and gestational surrogacy arrangements, although this *Handbook of Gestational Surrogacy* is concerned only with the latter. There has always been confusion among patients and practitioners and between countries about the definitions of the different forms of surrogacy. It is common practice to use the terms “surrogate,” “surrogate mother,” and “surrogate host” for the

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woman who carries and delivers a baby for another person. With “traditional surrogacy,” “natural surrogacy,” or “partial surrogacy,” the intended surrogate host is inseminated with the semen of the husband of the “genetic couple.” Any resulting child therefore is genetically related to the host.

“Gestational surrogacy,” “full surrogacy,” or “IVF surrogacy” is defined as treatment by which the gametes of the “genetic couple,” “commissioning couple,” or “intended parents” in a surrogacy arrangement are used to produce embryos, and these embryos are subsequently transferred to a woman who has agreed to act as a host for these embryos. The “surrogate host” is therefore genetically unrelated to any offspring that may be born as a result of this arrangement.

Despite the apparent differences between these two types of surrogacy, there still may be further confusion because several options exist under each heading. These may be considered as follows, together with their acronyms (in parentheses), which will be used subsequently in this chapter:

*Traditional surrogacy (TS).* Also known as “natural surrogacy” (NS). The surrogate may be known as such or as the “surrogate mother” (SM), “host,” or “host mother.” She could be inseminated by normal intercourse with the proposed genetic father, or by traditional vaginal or cervical insemination, or with donor sperm by either of these methods.

*Gestational surrogacy (GS).* Also known as “genetic surrogacy,” “IVF surrogacy,” or “full surrogacy.” The couple that will provide both gametes, and therefore the embryo for transfer, can be known as the “genetic couple” (GC), the “intended parents” (IP), or “commissioning couple” (CC). The gestating mother may be known as the “host mother” (HM) or “surrogate mother” (SM).

Any confusion may be compounded by the more recent use of TS or GS (see earlier) for lesbian couples, who will, in fact, usually only require donor insemination of one partner. However, embryos also may be created from the oocytes of one partner, fertilized with donor sperm, and the resulting embryos transferred to the other partner to gestate – thus making it a GS arrangement. With homosexual couples seeking to have children, one or the other or both partners will either inseminate the proposed host, or hosts, as has been done as a TS arrangement, or inseminate donated oocytes and have any resulting embryos transferred to the host – a GS arrangement.

These different arrangements have been described above in some detail for clarity and also because they reflect the changes that have occurred over time in the practice of treatment by surrogacy for women—and now men—who would otherwise never be able to have a child, whether it be from the host’s oocyte (TS) or using her own (GS).

For the rest of this chapter, only treatment by gestational surrogacy (GS) is considered, and the couple that initiates the surrogacy arrangement and whose gametes are used will be known at the “intended parents” (IPs), and the woman who subsequently carries the child will be known as the “surrogate mother” (SM).

## Changes in the Indications for Treatment by Gestational Surrogacy in the Past 30 Years

The indications for treatment by GS have evolved over time and therefore may be considered under this chapter on history. When Utian *et al.* [5] in the United States and ourselves [8–10] in the United Kingdom initiated our surrogacy programs, the prime indication for GS was for women who had had a hysterectomy. It later became apparent that success also could be achieved for women with Rokitansky-Kuster-Hauser (RKH) syndrome [11]. In time, women with recurrent abortions [12] and those with repeated IVF failures were also considered suitable for treatment by GS. However, with ever-increasing experience and ever-expanding use of GS as a treatment option, the number of indications has increased over the last 30 years. In what is the largest reported series to date (February 2015), Dar *et al.* [13] from Canada reviewed in detail the outcomes of 333 consecutive GS cycles carried out between 1998 and 2012. They list thirty specific medical indications for GS, in addition to the more obvious gynecologic indications.

The most significant recent addition to the indications for surrogacy – either GS using donated oocytes or TS using the host’s oocytes – has been for same-sex couples who aspire to have families of their own. This concept has been accepted in a number of countries (further discussed later) and is in increasing demand. In the paper by Dar *et al.* [13], 52 of the 256 (20.3 percent) of IPs who had treatment by GS were same-sex male couples. Other units in the few countries carrying out this treatment have reported up to 50 percent of their cycles being for same-sex male couples.

## Results of Treatment by Gestational Surrogacy in the Past 30 Years

Satisfactory pregnancy and delivery rates per IP and per SM generally are being achieved, although there are relatively few published series reported in the literature. In the first reported GS series by Utian *et al.* [14], a clinical pregnancy rate of 18 percent (7/59) per cycle initiated and 23 percent clinical pregnancy rate per embryo transfer were achieved. A later series of 180 cycles of GS reported an overall pregnancy rate per cycle of 24 percent (38/138) and a live birth rate of 15.8 percent (25/158) [15].

In our own reported series, live birth rates of between 37 and 43 percent per IP and 34 and 39 percent per SM were achieved, with a mean of two embryos transferred [8,9]. Another UK series, in which all the female partners of the genetic couples had had a hysterectomy, achieved a clinical pregnancy rate of 37.5 percent per SM and 27.3 percent (6/22) per cycle of treatment begun [10].

Another larger and more recent series by Smotrich *et al.* [16] from the United States reported a clinical pregnancy rate of 75 percent in 244 SMs after 324 embryo transfer cycles. Corson *et al.* [17] reported a clinical pregnancy rate of 56.3 percent per IP and 30.8 percent per cycle in women younger than 40 years of age in 117 cycles of fresh or cryopreserved embryo transfer. There were no pregnancies from 27 cycles of treatment when the genetic woman was older than age 40.

Mentioned earlier was the most recent publication of the detailed outcomes of the series by Dar *et al.* [13]. These authors reviewed 333 cycles of treatment involving 256 IPs and 247 SMs – by far the largest series reported to date. The mean age of the female partner of the IPs was 38.2 years, and the mean age of the SMs was 31.8 years (range 21–44 years). The reported pregnancy rates for different groups ranged from 50 to 60 percent.

During the past 30 years of treatment by GS, there has been little in the way of investigation of the immediate and long-term outcomes of the babies born as a result of GS arrangements. However, Parkinson *et al.* [18] in 1999 were the first to review the perinatal outcome of pregnancies from what they termed “*in vitro* fertilization surrogacy” and compared them to the outcome of pregnancies resulting from standard IVF. Interestingly, the occurrence of

pregnancy-induced hypertension and bleeding in the third trimester of pregnancy was up to five times lower in the surrogate hosts than in the standard IVF patient controls. Apart from birth weights and incidence of prematurity, little other information is given about the outcome of the babies.

Only a few long-term follow-up studies of SMs have been carried out during the past 30 years, but there is little to suggest any harm or regret among them; indeed, the most recent studies of SMs and IPs show reassuring data and positive outcomes, particularly for the SMs [19–21].

## Legal, Ethical, and Social Issues Arising from GS Arrangements in the Last 30 Years

Most of the problems reported in the early days of surrogacy were almost entirely in TS arrangements. They were mostly legal and concerned “ownership” and rights of genetic couples and the birth mothers. These are complex legal arguments, reviewed in greater detail in subsequent chapters of this book. The discussion is, however, well documented in a number of papers published on the subject [22,23]. The reason most of these problems arose is because the majority were TS arrangements and did not involve careful clinical and psychological assessment, counseling, and prior discussion with lawyers.

In 1985, the UK Parliament passed the Surrogacy Arrangements Act. This followed the first known TS arrangement in which the host was paid, which caused much controversy and debate. While this act limited – but did not ban – surrogacy, it did make commercial surrogacy illegal. Later, the UK Parliament passed the Human Fertilization and Embryology Act (1990), which confirmed the ban on commercial surrogacy but allowed the payment of “reasonable expenses” to SMs.

The advantage of GS arrangements is that clinicians, lawyers, and counselors invariably are involved as a team, and as a consequence, the occurrence of complications is rare. In the past 25 years of our experience, no serious clinical, ethical, or legal problems have been encountered with our GS program. Ethical and legal problems that might be encountered with gestational surrogacy include the following:

*The host may wish to keep the child.* This is the complication that all practitioners in this area worry most about, but with proper counseling

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and legal advice, it has not occurred in our series or in other published series.

*Both the genetic and host parents may reject an abnormal child.* This is, of course, a major concern but has not yet occurred in our experience, nor has any other group published on the occurrence of this complication. However, in 2014 there was worldwide press coverage of the case of a Thai surrogate host who bore twins for Australian IPs. One of the twins was born with Down syndrome and was rejected by the genetic couple but kept by the host. She subsequently received donations of financial support from around the world to help her to bring up the child [24]. As a result of this unfortunate case, the Thai government has developed legislation to ban commercial surrogacy (see Chapter 20). In another case involving an Indian surrogacy arrangement (which also involved Australian IPs), one twin born to the SM was rejected because it was “the wrong sex,” and the commissioning couple stated that they could not afford to bring up another child, whereas its twin – of “the right sex” – was accepted by the couple. This appears to have been because the couple already had a child of “the wrong sex” [25].

The question of whether it is ethical to pay SMs and, if so, how much has caused concern and debate over the years. In the United States, payment is permitted, negotiated, and covered by contracts. In the United Kingdom and in those European countries that allow surrogacy, the law permits only altruistic surrogacy, which is not always practical, so payment is often hidden within the heading of “reasonable expenses,” which is allowed. Many consider it unethical not to pay hosts for the sacrifices they make to help needy couples. However, the European Society of Human Reproduction and Embryology (ESHRE) Task Force on Ethics and the Law [26] states that “payment for [surrogacy] services is unacceptable.” The latest IFFS Surveillance Report 2013 [4] states only that “Payment of surrogate hosts is reported as continuing to be an issue that provokes much debate.” In the last few years, India has become the country providing the largest number of GS treatments. Press stories about “surrogacy farms,” where large numbers of poor Indian women are kept under supervision in hostels for most of their pregnancies, have been frequent. The Indian government presently

is addressing this ethical and legal minefield and proposes to regulate surrogacy through the Assisted Reproductive Technology (Regulation) Bill of 2013 (see Chapter 20).

The recommendations of the Practice Committee and the Ethics Committee of the American Society of Assisted Reproduction (ASRM) are set out in detail in their most recent reports [27,28] and are well worth reading in full by professionals practicing or intending to practice treatment by GS. The Practice Committee report sets out “guidelines for screening and testing of genetic parents and gestational carriers to reduce the possibility of complications and to address the complex medical and psychological issues that confront the gestational carrier and the intended parents, as well as the children.” The guidelines also set out best practice for ensuring that “infectious agents will not be transmitted to the gestational carrier.” It recommends that gestational carriers be offered freezing and quarantining of the genetic couple’s embryos for 180 days to further minimize the chance of transmission of infectious agents. By following the guidelines in this paper, practitioners should be able to avoid many of the potential complications inherent in treatment by GS.

The International Federation of Fertility Societies (IFFS) reviewed the practice of surrogacy worldwide in its 2013 survey [4]. Replies to the questionnaire were received from 62 countries. Of these, 19 countries (31 percent) allow GS by statute or guidelines, 24 (39 percent) do not allow it, and 14 (23 percent) do not mention GS at all in any guidelines or law. In 23 of the 62 countries (37 percent), GS is practiced, but at least nine of these countries have no statute, law, or guidelines. Many of the countries that do allow surrogacy have some very specific clauses regulating the practice. Most of the countries that did not respond to the questionnaire do not allow surrogacy for religious reasons. The lack of regulation, or at least guidelines, in some countries leaves practitioners, couples seeking gestational surrogacy, and the potential children arising out of these arrangements vulnerable to malpractice, commercial exploitation, and/or legal complications. Rare cases have been reported of children being born in cross-border arrangements who have subsequently been unable to achieve, or had difficulty in achieving, the nationality of their genetic parents because they were born overseas.

The people in many countries, including the United Kingdom and the United States, now accept



that treatment by surrogacy, particularly GS, is a reasonable treatment option if there are good clinical indications. There are, however, concerns about the commercial exploitation of SMs, particularly in countries such as India and Thailand, where it has almost become a major “industry.” Because there are many countries, particularly in Europe, where surrogacy is not permitted [4], and as the ease of international travel increases, couples seeking treatment by GS are traveling to countries where commercial surrogacy is allowed. The concern is that this will lead to disputes and exploitation of desperate couples seeking this particular treatment. These concerns are reviewed in an excellent article by Crokin [29] on the legal and ethical challenges of cross-border surrogacy. In her conclusion, Crokin summarizes the challenges by stating

CBS (cross-border surrogacy) presents both a daunting challenge and a significant opportunity. It has created possibilities for family building that were heretofore impossible while at the same time opening the possibilities of exploitation for potential surrogates and at times intended parents; it is fuelled by commercialization in some countries coupled with prohibitions in others; and it produces children whose legal status and citizenship may be uncertain. Given both the serious stakes for a rapidly growing number of participants worldwide, including intended parents, gestational surrogates, donors and offspring, as well as the enormous amounts of money changing hands in this burgeoning international industry, the goal of attempting to reach even minimum consensus principles for cross-border surrogacy is a worthy one. But, the vast differences in values and policies amongst the countries involved will make these challenges extremely perplexing.

Most of the legal problems that have arisen in the last 30 years from surrogacy arrangements have been associated with TS cases. There were two cases in the early days of treatment by surrogacy that received particular publicity. The Baby M case [30] was the first to go to court in the United States. The final decision was that the genetic father of the commissioning couple would have custody of the child rather than the birth mother. In the case of *Smith v. Jones* [31], which involved GS, the court recognized the genetic parents as the legal parents and gave them the right to put their names on the birth certificate of the baby. In the United States, a number of states have regulations

on surrogacy, but some states are more specific than others about the rights of the genetic mother over those of the birth mother. Some states criminalize paid surrogacy; others make surrogacy contracts unenforceable. Some states have no laws on surrogacy whatsoever, whereas others fully recognize commercial TS and GS. James *et al.* [32], in their recent and useful paper, aimed mainly at practice in the United States, set out ways to avoid some of the legal pitfalls in surrogacy arrangements. This paper is recommended reading for all participants in GS arrangements; it could well reduce the incidence of legal complications.

Religious attitudes toward surrogacy have not changed much since the birth of the first GS baby 30 years ago. The major religions hold widely different views, many of which will, no doubt, be discussed in the country-specific chapters later in this volume. They may, however, be summarized as follows:

The Catholic Church specifically forbids all forms of assisted conception that involve gamete donation and surrogacy [33]. Thus, in predominantly Catholic countries, this poses problems for couples who, for good clinical reasons, may wish to seek treatment by GS. They will usually be obliged to travel abroad for treatment, with all the potential hazards described earlier [29]. The Anglican Church is less rigid in its view on surrogacy and has not condemned it.

The Jewish religion, which is very much family oriented and puts a duty on Jewish couples to have children, does not forbid the practice of GS [34]. From a religious point of view, a child born through GS to a Jewish couple will belong to the father who gave the sperm and to the woman who gave birth.

The Islamic view appears absolute, and in the same way that the use of donor gametes is strictly forbidden, so surrogacy is also not allowed. It has been suggested, however, that it may be permissible between wives in the same marriage, but the debate continues [35].

## The Future of Gestational Surrogacy?

It is now 30 years since the birth in the United States of the first child following a GS arrangement [5]. In the 25 years of our experience at Bourn Hall, we have shown that the treatment of young women with

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very specific indications for treatment by GS is successful and relatively free of complications [8,36]. In most IVF/assisted reproductive technology (ART) practices, GS accounts for only about 1 percent of treatment cycles. The indications for treatment by GS have, until recently, been limited to a small group of women who have no uterus, suffer recurrent abortions, or suffer from certain medical conditions that would threaten the life of the woman were she to become pregnant.

However, times are changing, and GS more recently has been used to help same-sex male couples who wish to have families and a few “celebrities” who have not wished, or otherwise felt unable, to carry their own babies. The legal and ethical question of whether or not it is acceptable to provide GS, hitherto only recommended for heterosexual couples, to gay male couples has provoked considerable debate. The ASRM Ethics Committee Report of 2006 [37] for the first time carefully considered “the changing nature of reproduction and the family.” The committee concluded “there is no sound basis for denying to single persons and gays and lesbians the same rights to reproduce that other individuals have,” and the committee finally concluded: “As a matter of ethics, we believe that the ethical duty to treat persons with equal respect requires that fertility programs treat single persons and gay and lesbian couples equally with married couples in determining which services to provide.”

Few studies have been conducted on the short- and long-term emotional and psychological effects of treatment by GS on the babies born, the SMs, and the IPs. However, the few studies that have been performed are generally reassuring for all three groups [38–41], but it is to be hoped that more long-term studies will be initiated in the future, especially now that there are meaningful numbers of IPs and SMs who have completed the process of GS.

Until recently, successful transplantation of a uterus to a woman with RKH syndrome or who had had a hysterectomy was an aspiration and dream that, despite attempts by many researchers over the years, had not been successful. However, Brännström *et al.* [42] in 2015 reported the first birth of a healthy baby following uterus transplantation in a 35-year-old woman – interestingly, using a uterus donated by a living 61-year-old woman. This success was achieved after at least 11 other attempts worldwide. Were this option to become

more widely available and successful, it is likely that the demand for GS will become less in the future.

As IVF/ART services become more and more available throughout the world, so the provision of GS programs is increasing and will continue to do so in the foreseeable future. The demand for medical indications will increase, as will the demand for same-sex couples, and many services increasingly are likely to provide GS for purely social reasons. The main limitation to access to GS is cost. In countries where only altruistic surrogacy is allowed, including the United Kingdom, the cost may be \$6,000 to \$10,000 for the medical treatment plus \$10,000 to \$15,000 for the expenses of the SM. A typical “surrogacy package” in India costs between \$25,000 and \$30,000, including all medical, medication, legal, and counseling charges and the care, delivery, and compensation of the SM. This contrasts with the costs in the United States, which typically are quoted at between \$80,000 and \$150,000 [43,44], comprising averages of \$20,000 agency fees, health insurance of \$15,000 to \$30,000, the GS’s fee and expenses of \$30,000 to \$50,000, legal and counseling fees of \$20,000, and the cost of the IVF procedures of about \$20,000. This major difference in costs between countries and providers of GS services is leading to a big increase in the number of couples traveling thousands of miles between countries for treatment – now dubbed “reproductive tourism.” As the demand for GS increases, so will this traffic of couples desperate for the child they are otherwise unable to bear, but at as reasonable cost as possible.

Now, and increasingly in the future, ART centers are prepared to freeze sperm and oocytes of the IPs and ship them to another country with easier and cheaper availability of SMs, where embryos of the IPs are created *in vitro* and transferred to the SM. Alternatively, embryos created for the IPs are frozen and shipped to another country for transfer to the SM.

At Bourn Hall, we believe that a GS service should be an integral part of a comprehensive infertility treatment program that most larger centers should offer in countries such as the United States, the United Kingdom, and a number of other countries worldwide [4] where it is an ethically and legally accepted form of treatment. In our own and most other ART practices that offer the full range of ART treatments, GS accounts for less than 1 percent of all

treatment cycles, but the proportion is much higher in the few practices that specialize in GS arrangements. The treatment process in itself is straightforward. The incidence of complications is relatively rare when treatment is conducted in responsible clinics that provide the full service of selection, counseling, legal advice, and IVF treatment.

The best interests of any child born from a GS arrangement must always be the absolute priority. The fitness and welfare of the proposed SM to go through with the treatment and the welfare of her existing children are, of course also a priority. She must be given in-depth counseling and legal advice, and any financial agreement with the IPs must be fully agreed to and documented, again with legal advice. The IPs also require in-depth counseling and legal advice, as well as a realistic idea of what their chances of success are and the likely financial burden.

Treatment by GS increasingly will become available and taken up worldwide in the next few decades by couples desperate to have their own genetic children and as the medical and social indications for GS increase.

References

1. *Holy Bible*, Genesis. 16: 1–15; 17: 15–19; 21: 1–4.  
2. The Hammurabi Code. Available online at: [ws.collin.edu/mbailey/hammurabi/s%20code%20overview.htm](http://ws.collin.edu/mbailey/hammurabi/s%20code%20overview.htm).  
3. Shields FE. Artificial insemination as related to females. *Fertil Steril* 1950; **1**:271.  
4. Ory S, Devroey P, Banker M, *et al.* International Federation of Fertility Societies (IFFS) Surveillance 2013, October 2013. Available online at: [www.iffs-reproduction.org/resource/resmgr/iffs\\_surveillance\\_09-19-13.pdf](http://www.iffs-reproduction.org/resource/resmgr/iffs_surveillance_09-19-13.pdf).  
5. Utian WH, Sheean LA, Goldfarb JM, Kiwi R, Successful pregnancy after in vitro fertilisation and embryo transfer from an infertile woman to a surrogate. *N Engl J Med* 1985; **313**:1351–2.  
6. *Report of the Committee of Inquiry into Human Fertilisation and Embryology* London (London: Her Majesty’s Stationery Office, 1984).  
7. Steptoe, P. Surrogacy. *Br Med J (Clin Res Ed)* 1987; **294**:1688–9.  
8. Brinsden PR, Appleton TC, Murray E, *et al.* Treatment by in vitro fertilisation with surrogacy: the experience of a single centre in the United Kingdom. *Br Med J* 2000; **320**:924–8.  
9. Brinsden PR. IVF surrogacy. In PR Brinsden, ed., *A Textbook of In Vitro Fertilization and Assisted Reproduction* (London: Taylor & Francis, 2005), pp. 393–404.

10. Meniru GI, Craft IL. Experience with gestational surrogacy as a treatment for sterility resulting from hysterectomy. *Hum Reprod* 1997; **12**(1):51–4.  
11. Beski S, Gorgy A, Venkat G, Craft I, Edmonds K. Gestational surrogacy: a feasible option for patients with Rokitansky syndrome. *Hum Reprod* 2000; **15**:2326–8.  
12. Raziel A, Friedler S, Schachter M, Strassburger D, Ron-El R. Successful pregnancy after 24 consecutive fetal losses: lessons learnt from surrogacy. *Fertil Steril* 2000; **74**:104–6.  
13. Dar S, Lazer T, Swanson S, *et al.* Assisted reproduction involving gestational surrogacy: an analysis of the medical, psychological and legal issues. Experience from a large surrogacy program. *Hum Reprod* 2015; **30**(2):345–52.  
14. Utian WF, Goldfarb JM, Kiwi R, *et al.* Preliminary experience with in vitro fertilization surrogate gestational pregnancy. *Fertil Steril* 1989; **52**:633–88.  
15. Goldfarb JM, Austin C, Peskin B, *et al.* Fifteen years of experience with an in vitro fertilization surrogate gestational pregnancy programme. *Hum Reprod* 2000; **15**:1075–8.  
16. Smotrich DB, Ross RJ, Arnold LL, Batzofin D. Gestational surrogacy: ART’s stepchild. *Fertil Steril* 2008; **90**:S387–8.  
17. Corson SL, Kelly M, Braverman A, English ME. Gestational carrier pregnancy. *Fertil Steril* 1998; **69**:670–4.  
18. Parkinson J, Tran C, Tan T, *et al.* Peri-natal outcome after in vitro fertilization: surrogacy. *Hum Reprod* 1999; **14**(3):671–6.  
19. Fisher S, Gillman I. Surrogate motherhood: attachment, attitudes and social support. *Psychiatry* 1991; **54**:13–20.  
20. Blyth E. Interviews with surrogate mothers in Britain. *J Reprod Infert Psychol* 1994; **12**:189–98.  
21. Golombok S, Murray C, Jadv V, *et al.* Families created through a surrogacy arrangement: parent-child relationships in the first year of life. *Dev Psychol* 2004; **40**:400–11.  
22. Cohen B, Friend TL. Legal and ethical implications of surrogacy mother contracts. *Clin Perinatal* 1987; **14**:281–92.  
23. Shuster E. When genes determine motherhood: problems in gestational surrogacy. *Hum Reprod* 1992; **7**(7):1029–33.  
24. Surrogate mom vows to take care of ill twin “abandoned” by parents. CNN, August 7, 2014. Available online at: <http://edition.cnn.com/2014/08/04/world/asia/thailand-australia-surrogacy/>.  
25. Another Aussie couple reject surrogate baby. *New Zealand Herald*, October 9, 2014. Available online at:

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[www.nzherald.co.nz/world/news/article.cfm?c\\_id=2&objectid=11339854](http://www.nzherald.co.nz/world/news/article.cfm?c_id=2&objectid=11339854).

26. Shenfield F, Pennings G, Cohen J, *et al.* ESHRE Task Force on Ethics and Law: Chap. 10. Surrogacy. *Hum Reprod* 2005; **20**:2705–7.

27. Ethics Committee of the American Society of Reproductive Medicine. Consideration of the gestational carrier. *Fertil Steril* 2013; **99**(7):1838–41.

28. Practice Committee of the American Society of Reproductive Medicine and Practice Committee of the Society for Assisted Reproductive Technology. Recommendations for practices utilizing gestational carriers: a committee opinion. *Fertil Steril* 2015; **103**(1):e1–e8.

29. Crokin SL. Growing families in a shrinking world: legal and ethical challenges in cross-border surrogacy. *RBM Online* 2013; **27**:733–41.

30. Rothenberg KH. Baby M. The healthcare contract and the healthcare professional: unanswered questions. *Law Med Health Care* 1988; **16**:113–20.

31. *Smith v. Jones*, Los Angeles Superior Court, Los Angeles County, June 9 1987. No. CF 025653.

32. James S, Chilkvers R, Havemann D, Phelps JY. Avoiding legal pitfalls in surrogacy arrangements. *RBM Online* 2012; **21**:862–7.

33. McCormick RA. Surrogacy: a Catholic perspective. *Creighton Law Rev* 1992; **25**:1617–25.

34. Schenker JG. Infertility evaluation and treatment according to Jewish law. *Am J Obstet Gynecol Reprod Biol* 1997; **71**:113–21.

35. Hussain FA. Reproductive issues from the Islamic perspective. *Hum Fertil* 2000; **3**:124–8.

36. Brinsden PR. Gestational surrogacy. *Hum Reprod Update* 2003; **9**(5):1–9.

37. Ethics Committee of the American Society for Reproductive Medicine. Access to treatment by gays, lesbians, and unmarried persons. *Fertil Steril* 2006; **86**:1333–5.

38. Jadv V, Murray C, Lycett EJ, *et al.* Surrogacy: the experience of surrogate mothers. *Hum Reprod* 2003; **18**:2024–2196.

39. MacCallum F, Lycett E, Murray C, *et al.* Surrogacy: the experience of commissioning couples. *Hum Reprod* 2003; **18**:1334–42.

40. Jadv V, Imrie S. Children of surrogate mothers: psychological well-being, family relationships and experience of surrogacy. *Hum Reprod* 2014; **29**(1):90–6.

41. Jadv V, Blake L, Casey P, Golombok S. Surrogacy families 10 years on: relationship with the surrogate, decisions over disclosure and children’s understanding of their surrogacy origin. *Hum Reprod* 2012; **27**(10):3008–12.

42. Brännström M, Johannesson L, Bokström H, *et al.* Livebirth after uterus transplantation. *Lancet* 2015; **385**:607–16.

43. Available online at: [www.surrogacyamerica.com/parents\\_surrogacy\\_fees.php](http://www.surrogacyamerica.com/parents_surrogacy_fees.php).

44. Available online at: [www.webmd.com/infertility-and-reproduction/guide/using-surrogatemother?page=2](http://www.webmd.com/infertility-and-reproduction/guide/using-surrogatemother?page=2).