

Topic 2

The use of medical technology

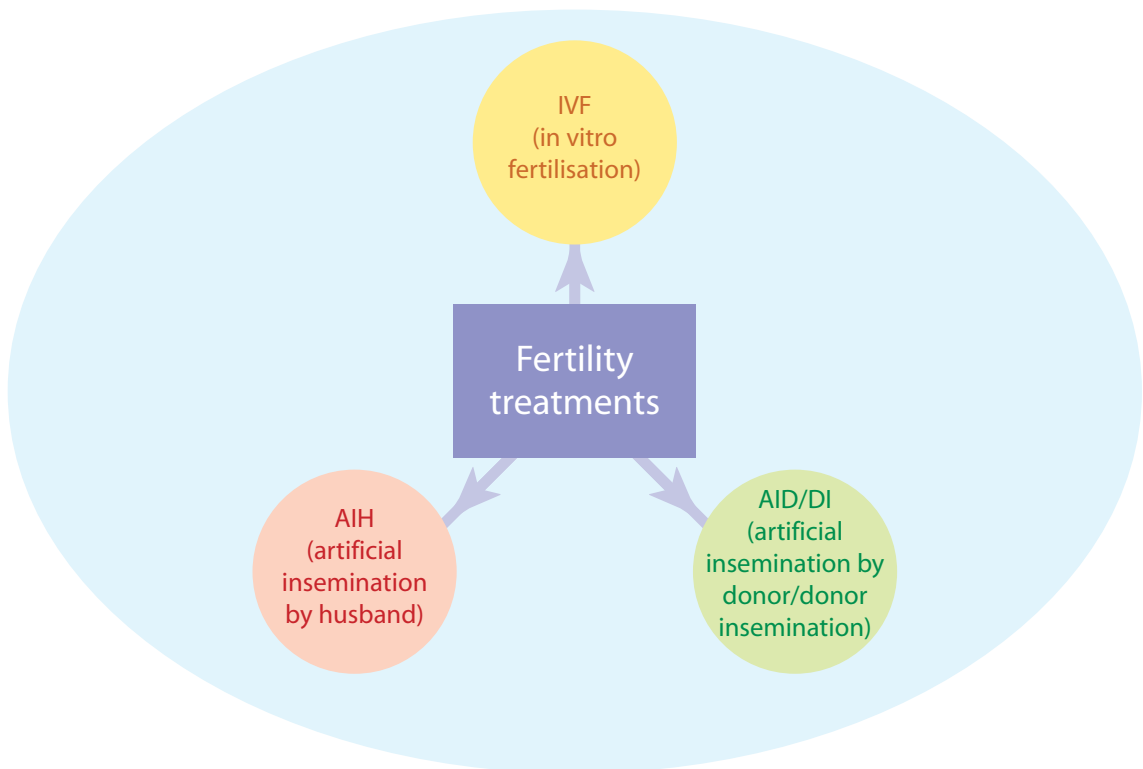


Fertility treatments

Infertility is caused by a variety of factors. Sometimes the problem can be solved, but often couples have to resort to particular types of **fertility treatment**. The distress caused by infertility has been compared to that caused by bereavement: it is intense and long lasting, if not permanent. It creates a sense of inadequacy, failure and emptiness. The Old Testament story of Hannah (1 Samuel 1) illustrates the effects.

'Help to carry one another's burdens, and in this way you will obey the law of Christ' (Galatians 6:2)

Her husband...would ask her: 'Hannah, why are you crying? Why won't you eat? Why are you always so sad? Don't I mean more to you than ten sons?' (1 Samuel 1:8)



Methods of treatment

■ AIH:

- the husband's/partner's sperm is collected and inserted into the woman's vagina; fertilisation is left to occur naturally

■ AID/DI:

- as for AIH, but with the use of donors who have been paid a small sum to donate sperm to a donor bank; the husband's name appears on the birth certificate, but at 18 children have the right to know the identity of their genetic fathers

■ IVF:

- hormonal treatment increases the number of eggs that ripen; at maturity they are collected and put in a dish, to be fertilised with the sperm that has been collected; after checks for viability one or two embryos are put into the uterus
- spare embryos may be frozen for up to ten years; they may be used for future cycles of treatment, donated to other infertile couples or donated for **embryonic research**; otherwise they are destroyed
- both partners must agree about the use of any spare embryos



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IVF embryos may be frozen for future use

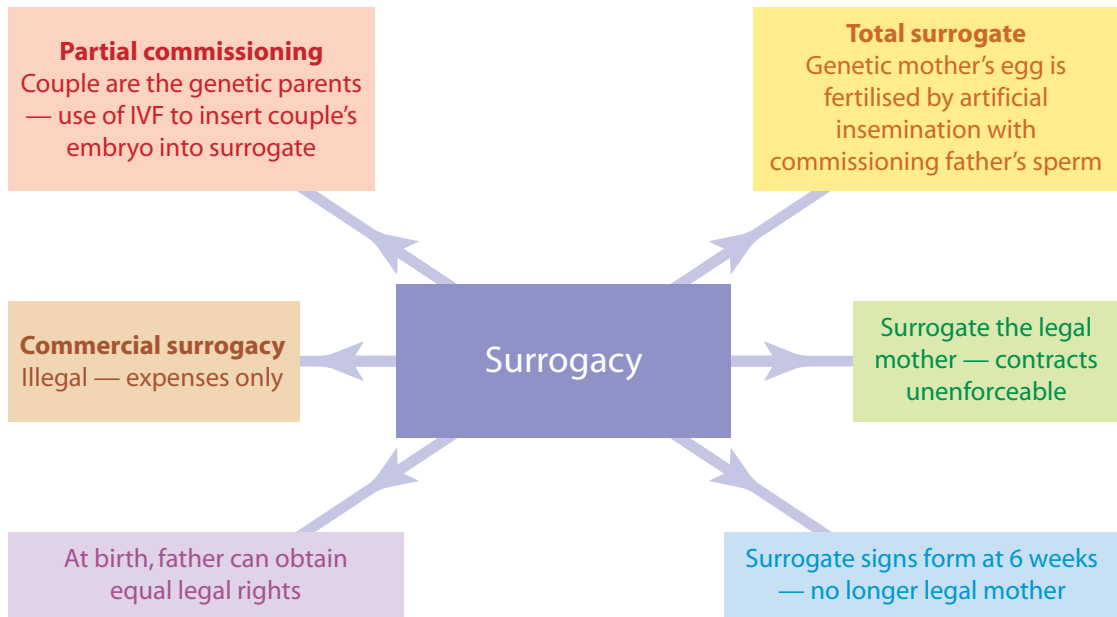
Embryonic research

This is regulated by the **HFEA** (Human Fertilisation and Embryology Authority), which gives licences to research institutions for specific purposes. It is to be used only when there is no alternative and was originally permitted only for the study of infertility and miscarriage, though it has now been extended (see the section on cloning on pages 29–32).

The embryo must be destroyed at 14 days, as that is when the primitive streak (the beginning of what will eventually be the nervous system) appears. After 14 days there is no further possibility of the embryo dividing to form twins or recombining, and so it could be said that from that point the embryo is in some sense an individual.

'So God created human beings, making them to be like himself. He created them male and female, blessed them, and said, "Have many children..."'
(Genesis 1:27–28)

'When my bones were being formed...you knew that I was there — you saw me before I was born'
(Psalm 139:15–16)



Abraham and Hagar

- Some people claim that the story recorded in Genesis 16 is an early example of surrogacy.
- Because of his wife's infertility, Abraham had a child by her slave and this child was then to be classed as Sarah's.
- This was a very ancient custom and is not a parallel to modern surrogacy — Abraham had a sexual relationship with Hagar to enable her to conceive.

Roman Catholic views on fertility treatment and surrogacy

- A child is a gift from God, not a right or a commodity to be ordered. Infertility is distressing, but there is the possibility of adoption or fostering.
- All forms of fertility treatment interfere with nature by separating the **unitive** from the **procreative** aspect of the sexual relationship and they also involve masturbation, which is seen as unnatural and therefore sinful.
- The use of donated sperm is described as a form of 'mechanical adultery' since it brings a third party into the relationship and it may cause social and psychological problems later.
- The creation of spare embryos with the possibility of their being researched on and then destroyed disregards the **sanctity of life** and is tantamount to murder. It exploits the most defenceless of God's creatures: embryos of less than 14 days, which makes IVF particularly sinful.
- **Surrogacy** is seen as reducing the mysterious and wonderful process of conception to what has been called a barnyard procedure.

Protestant views on fertility treatment and surrogacy

- Most Protestants see most forms as a responsible use by doctors of the skills given to them by God.
- It is an act of compassion, fulfilling the command to 'love your neighbour', as infertility is a source of great and lasting distress to couples. Children are a blessing and enrich a marriage and are what God intended at creation.
- It is not interfering with nature, but is putting faulty nature right.
- Many Protestants share the same concerns as Roman Catholics about the possibility of social and psychological problems arising from the use of donated sperm, however, and are opposed to AID and IVF that uses donor sperm.
- Some, however, see sperm donation as simply another form of fertilisation and, as long as donors are not paid, as an act of love.
- Many accept the use of spare embryos for research as they are not used after 14 days and the research is only for very serious reasons. At that early stage the embryo is a potential human being whose rights develop with greater maturity so, although it should be treated with respect, it does not have the absolute right to life.
- Some take the same view on embryonic research as that of the Roman Catholic Church.
- Most Christians oppose surrogacy more out of concern for its possible commercialisation of human life and for the social and psychological problems that might arise. The Anglican Church has stated its opposition to it.
- Some accept surrogacy in certain situations as an act of self-sacrificial love and compassion on the part of the surrogate.

'Everything that happens in this world happens at the time God chooses. He sets the time for birth and the time for death'
(Ecclesiastes 3:1-2)

'Children are a gift from the Lord; they are a real blessing'
(Psalm 127:3)

Key words

AID/DI
AIH
embryonic research
fertility treatment
HFEA
infertility
IVF
procreative
sanctity of life
surrogacy
unitive



Test yourself



Case study

Kim Cotton and COTS

- She was the UK's first commercial surrogate mother and was paid £6,500
- She then sold her story to a newspaper for a huge sum
- She provided the egg, which was inseminated with the commissioning father's sperm
- She has never had any contact with the child or the parents and still finds this hard
- She later carried a child (without a fee) for an infertile friend and the relationship is still close
- She founded COTS (Childlessness Overcome through Surrogacy) as a non-profit-making introduction agency for surrogates and infertile couples
- She left COTS (though is still a patron) because of a series of scandals, e.g. huge sums of money being paid to surrogates; surrogates refusing to hand the child over or having abortions; commissioning parents not wanting the child after it was born
- She is still convinced of the value of surrogacy and claims that most work out well for the surrogates, the parents and the children
- She prefers partial (host surrogacy), because that creates fewer emotional problems for the surrogate



Surrogate mother Kim Cotton

- 1 Give three arguments in favour of surrogacy.
- 2 Give three arguments against surrogacy.
- 3 Explain why some Christians disagree with the use of IVF.
- 4 Explain why some Christians accept the use of IVF.

'...you must clothe yourself with compassion, kindness...'
(Colossians 3:12)

Examination question

'Becoming a surrogate mother is an act of Christian compassion.'

What do you think? Explain your opinion.

(3 marks)

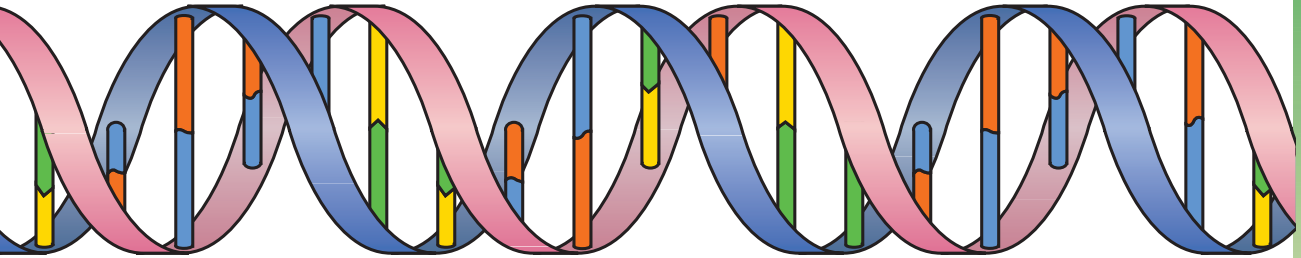
Exam tip

3-mark evaluation questions do not require you to give two points of view. They want you to say what you think about the issue, giving reasons for the opinion you hold. You need to make sure that you read the stem (the quotation at the start of the question) very carefully so that your answer is focused and relevant.



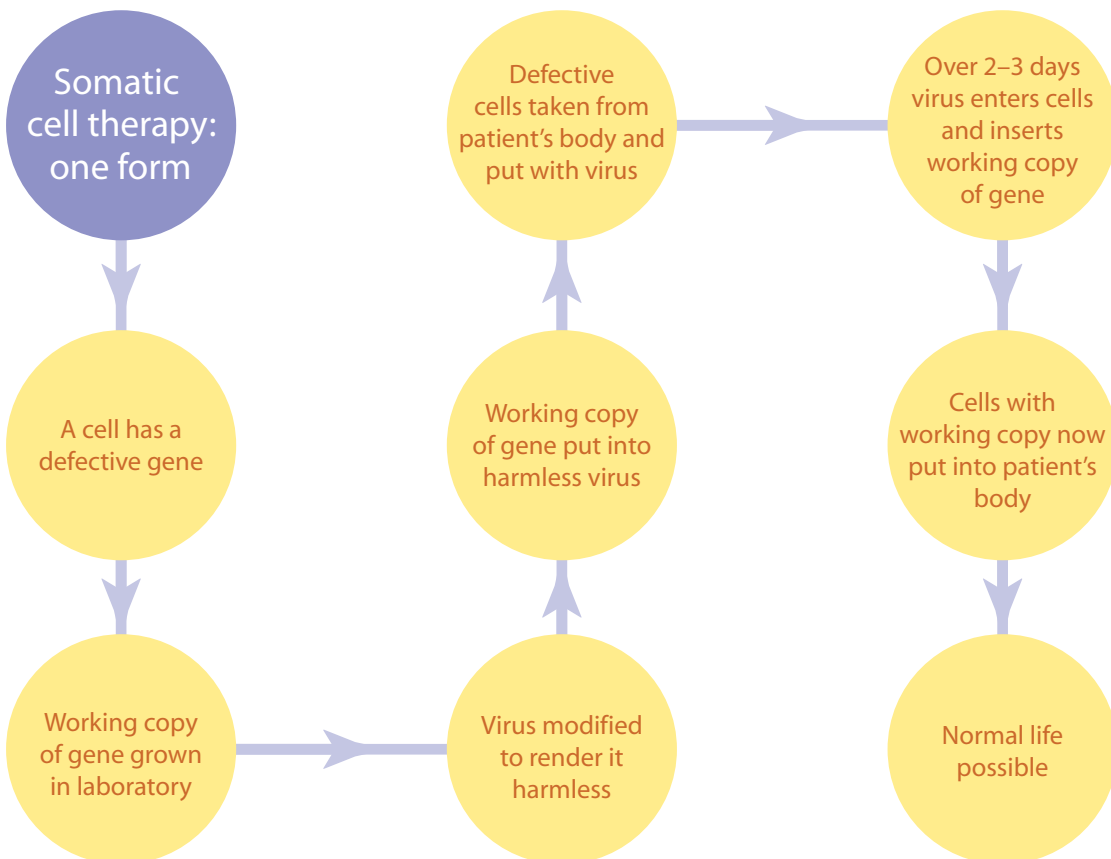
Genetic engineering

Genetic engineering refers to changes made to the genetic structure of living things. Human genetic engineering is permitted for two types of **gene therapy**: **somatic cell therapy** and the creation of **saviour siblings**. Some people would like to take genetic engineering further and create **designer babies**.



Somatic cell therapy

This is a treatment that adds to, enhances or replaces a defective gene. It is a treatment for single genetic disorders such as X-SCID (X-linked severe combined immunodeficiency), which means that any infection is likely to prove fatal.





Case study

Rhys Evans

- Failure to respond to antibiotic treatment for infection
- Admitted to hospital
- Daily uncertainty about his survival
- Diagnosed with X-SCID
- In 2002 became first child in UK to receive somatic cell therapy
- Now a healthy schoolboy



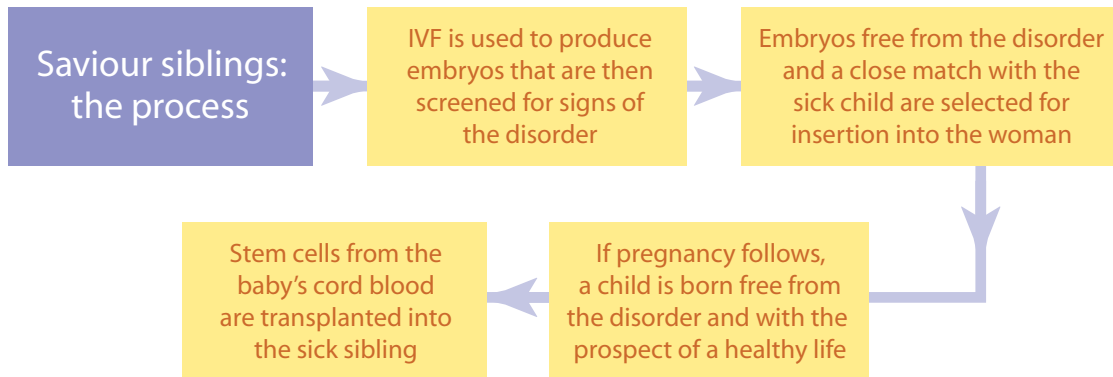
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Christian attitudes to somatic cell therapy

For	Against
Mainstream churches, including the Roman Catholic Church, regard it as morally acceptable, since it is aimed at healing the individual	Some individual Christians oppose it although they accept its intentions are good
It saves life	It may be only short-term saving of life
It is an extension of Jesus' healing ministry that is now the responsibility of his followers	Jesus did not heal everyone who was sick, and there are limits to this also today
It is an act of compassion	Is it compassionate to give a treatment whose long-term success is not known?
Development and refinement of the technique is a responsible use of God-given skills	Concern that those developing the techniques might have mixed motives — wanting to be the first to develop something new and be famous
The benefits outweigh the risks	Very risky — one French child developed leukaemia as a result of somatic cell therapy
How can a price be put on the life of a child?	Should large sums of money be spent on very rare conditions when more common conditions need treatments and when thousands are dying of hunger etc. in poor countries?
It is less expensive than current treatments, so shows good stewardship of limited resources	As above
Strictly regulated by the HFEA	Concerns of a slippery slope leading to legalisation of germline therapy (where future generations will be affected), and designer babies

Saviour siblings

This technique is used to save the life of children who have a life-threatening disorder. In the UK, every treatment has to be approved by the HFEA. The treatment combines IVF with PGD (**pre-implantation genetic diagnosis**), which is a form of genetic screening. If a baby free from the disorder is born, its cord blood can be used to treat the sick sibling.



Case study

Adam and Molly Nash



The Nash family

- Molly Nash was born with a genetic disorder that would lead to an early death
- Her parents wanted another child — but one free from the disorder
- They also wanted treatment for Molly
- Through a combination of IVF and PGD Mrs Nash conceived and gave birth to Adam, a healthy baby free from the disorder
- The stem cells from his cord blood were used to give Molly a bone marrow transplant, which was a success