



What about research using **IVF embryos** who are going to die anyway?

It's bad enough that we already destroy some IVF embryos in research. Just because so called 'spare embryos' left over from IVF are going to die anyway, it does not follow that we should 'use them for something'.

Many frail elderly people, prisoners on death row, and terminally ill patients are 'going to die soon anyway' but we hold back from killing and using them. Surely our smallest and most vulnerable embryonic human beings deserve respect too.

Is there an **alternative** to destructive embryo research?

Many people are surprised when they learn that NO therapies in humans have ever been successfully carried out using embryonic stem cells.

Noisy supporters of embryo research and cloning drown out the fact that there are ways of obtaining stem cells which harm no one and are actually more promising. These include deriving stem cells from the tissues and organs of children and adults, placentas and umbilical cord blood.

Often referred to as 'adult stem cells,' these ethical stem cells have already been shown to help more than 70 medical conditions, including Parkinson's disease, spinal cord injury, blood diseases and heart damage.

Adult stem cell research is a practical and ethical alternative. It has demonstrated that science does not have to kill in order to cure. Let's encourage Australians to pursue promising adult stem cell research and to **find cures we can ALL live with.**

God, Creator of Life, we pray that our nation will be united in reverence for human life, from its first moments until its natural end.

In your plan for our salvation, help us to find therapies and cures for disease in ways that respect the dignity of every human being.

Lover of Life, be with us in our suffering and in our joys, and help us to build a civilisation of truth and love.

Amen.

The human embryo;

**someone
or
something?**



You were an embryo once. You were smaller than the full stop at the end of this sentence. You looked a lot different to how you look now. But were you a human being then, or something else? Were you 'someone' or 'something'?

These are not just abstract questions for scientists, philosophers and theologians. New ways of generating, manipulating and experimenting upon human life in the laboratory make them important questions for us all.



Get involved:
go to <http://www.cloning.org.au>

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So when does human life begin?

Medical and biological textbooks agree that human life begins at fertilisation, the process by which the sperm from a human male and the ovum from a human female unite to give rise to a new living human being – a human embryo.

Today human embryos can also be created by cloning. This involves a process called somatic cell nuclear transfer (SCNT) which was used in the creation of Dolly the sheep. The genetic material (nucleus) from a person's body cell is introduced into an egg which has had its own nucleus removed, and then triggered to develop as an embryo. This embryo will be a genetic copy of the person who provided the body cell.

Whether beginning by fertilisation or by cloning, the single-cell human embryo has all the genetic material and power to direct its own growth and development as a living human being. Once formed, nothing other than nutrition, good health, the nurture of a woman's womb and time is needed for a human embryo to become a foetus, an infant, a child, and eventually an adult human being.

Unlike any other kind of embryo, a human embryo has the inherent nature, organisation, 'soul' as some call it, which means it will grow up as a human being, and never as a kangaroo or some other creature. While events like implantation in the wall of the womb are necessary for an embryo's survival, they do not change 'what' it is. 'He' or 'she' already is and will remain human.

How should we treat human embryos?

Christians believe that every human being is precious, from the very beginning of his or her life, until natural death. The concern of the Church to be inclusive, to recognise the claims of each and every human being to our protection and compassion is surely Christianity at its best. In doing so, we join many people of other religions and some of no religion, who believe respect for the dignity of every human being gives rise to the recognition of the so-called sanctity or inviolability of human life and a series of basic human rights.

Human embryos should never be deliberately exploited and harmed.

Why do some people want to experiment with human embryos?

Human embryos are a rich source of stem cells. Stem cells are capable of becoming a more specialised type of cell, such as a nerve cell, a skin cell, or a particular blood cell.

Some scientists hope to use human embryos and/or their stem cells to:

- develop 'cell-based' therapies which could replace or heal damaged tissues and cells in the body
- study the development of diseases
- test drugs or trial new methods of reproductive technology
- train laboratory technicians.

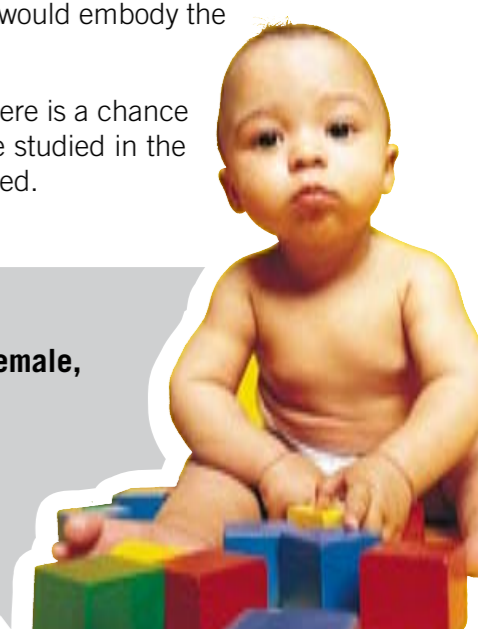


When does human life matter?

If embryos are human beings then the fact that they are tiny and very young is no more morally relevant than that they are black or white, Australian or Kalathumpian, male or female, at the beginning of life or soon to die. Every individual human life, every human being, matters!

Why? Because our value, our 'dignity', is found in our very being. We are of great value simply because we are human, and not because of how we look or what we can do.

Embryonic human beings might not look or act like you or me, but they look and act precisely how very young human beings should. They share our human nature.



God's love does not differentiate between the newly conceived infant still in his or her mother's womb and the child or young person, or the adult and the elderly person. God does not distinguish between them because he sees an impression of his own image and likeness (Genesis 1:26) in each one. He makes no distinctions because he perceives in all of them a reflection of the face of his Only-begotten Son.

This boundless and almost incomprehensible love of God for the human being reveals the degree to which the human person deserves to be loved in himself, independently of any other consideration -- intelligence, beauty, health, youth, integrity, and so forth. In short, human life is always a good, for it "is a manifestation of God in the world, a sign of his presence, a trace of his glory"

Pope Benedict XVI

Why not experiment with human embryos?

The big problem with embryo research is that although it may perhaps one day yield new life-saving treatments for other people, it is death-dealing to the human embryos.

Belief in the dignity of the human embryo means no hoped-for therapeutic good is sufficient to justify the immorality of killing our very young. Biomedical science should be at the service of human life and dignity; human life and dignity should never be exploited for the sake of science. There must be ethical limits.

Do we really want a society which includes a 'laboratory underclass' of embryos, useable and disposable, whether leftovers or deliberately fertilized or cloned for the purpose?

What is the difference between 'therapeutic' and 'reproductive' cloning?

Cloned human embryos can be used and destroyed in research, drug testing or to try to obtain rejection-proof stem cells for transplantation into the person from whom the clone was made. This is sometimes referred to as 'therapeutic cloning.'

Another possibility is that cloned embryos could be implanted into women's wombs and brought to birth. This is sometimes referred to as reproductive cloning.

But really all cloning is reproductive!! Human cloning asexually reproduces an 'identical twin embryo' of another person. It does not simply result in a 'bunch of cells.' And it is never 'therapeutic' for the embryo that is killed.

Doesn't law already allow embryos to be created and destroyed in IVF?

It's regrettably true that embryos are often created and die as a result of IVF. But to cross another line and allow the creation of human embryos only for experimentation and destruction would embody the ultimate form of commodification of human life.

It is illogical and unjust to think that a human embryo only counts as 'someone' if there is a chance that it will be nurtured and brought to birth, but otherwise it's just 'something' to be studied in the lab, used for drug testing, dismembered to obtain stem cells, and ultimately destroyed.

In 2002, the Catholic Archdiocese of Sydney made a \$50000 grant to Professor Mackay-Sim's research team at Griffith University. Their research has shown that adult stem cells from the lining of the nose have similar abilities to embryonic cells, without the practical and ethical problems.

These 'olfactory stem cells' are easy to obtain and be turned into a wide range of other cells – brain, liver, heart, kidney and muscle cells - which are better candidates for cell replacement therapies than embryonic stem cells. Because they can be derived from the patient's own cells, anti-rejection drugs or genetic modification would not be needed. And because they don't seem to grow in the uncontrolled way that embryonic stem cells grow they are less likely to cause tumours.

The team has now produced 'patient-specific stem cells' from over 40 human patients for direct study of the cell types involved in Parkinson's disease, schizophrenia, mitochondrial diseases and epilepsy. They have also begun preclinical animal studies of the use of these cells to treat Parkinson's disease. This shows that it is possible to overcome the need for the so-called 'therapeutic cloning' and subsequent destruction of human embryos.

In December 2005 the Sydney Archdiocese made a further \$100 000 grant to Dr Kaur of the Peter MacCallum Cancer Centre in Melbourne, for research into the use of adult stem cells to restore the skin of patients who have sustained severe injuries as a result of fires, bomb blasts or accidents.